Documents of the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in certain parts of the MF band in Region 1

(Geneva, 1985)

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 1-E
15 August 1984
Original : French

PLENARY MEETING

Note by the Secretary-General

AGENDA OF THE CONFERENCE

The agenda of the Conference is contained in Resolution No. 897 adopted by the Administrative Council at its 38th session.

The text of the Resolution is attached.

R.E. BUTLER
Secretary-General

Annex : 1

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ANNEX

R No. 897 REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

The Administrative Council,

considering that Resolution No. 704 of the WARC for the Mobile Services, Geneva, 1983, invited the Administrative Council to take all necessary steps to convene a regional administrative radio conference for Region 1 for the maritime mobile service and the aeronautical radionavigation service in accordance with Resolution No. 7 of the Plenipotentiary Conference, Nairobi, 1982;

considering further the results of the consultation conducted by telegram on 10 May 1983;

resolves

1. that a regional administrative radio conference for the maritime mobile service and the aeronautical radionavigation service in the MF bands in Region 1 be convened in Geneva on 25 February 1985 for a duration of 3 weeks;

2. that the agenda of the conference shall be as follows :

2.1 to establish an agreement and associated frequency assignment plans in the following frequency bands in Region 1 having regard to No. 419 of the Radio Regulations and Appendices 1 and 2 to Resolution No. 704 of the WARC for the Mobile Services, Geneva, 1983;

2.1.1 for the maritime mobile service :

415 - 435 kHz
435 - 526.5 kHz
1 606.5 - 1 625 kHz
1 635 - 1 800 kHz
2 045 - 2 160 kHz

2.1.2 for the aeronautical radionavigation service :

415 - 435 kHz and
505 - 526.5 kHz

2.2 to reassign replacement frequencies for stations of the maritime mobile service in accordance with resolves 2 of Resolution No. 38 of WARC-79;

2.3 when establishing the Plan for the maritime mobile service to afford appropriate protection to frequency assignments to stations of other services to which the bands :

1 606.5 - 1 625 kHz
1 635 - 1 800 kHz and
2 045 - 2 160 kHz

are also allocated.

2.4 to establish procedures intended for future modifications to the Plans and permitting a compatible development of the other services to which the bands are allocated;

2.5 to establish the final texts of Appendices to the Radio Regulations containing the channelling arrangements in Appendices 1 and 2 to Resolution No. 704 of the WARC for the Mobile Services, Geneva, 1983 in the bands referred to above with the view to their later inclusion in the Radio Regulations;

2.6 to agree on a date of implementation of the above Plans taking into account the needs of the other services to which Resolution No. 38 of WARC-79 applies;

instructs the IFRB to invite the administrations of Region 1 to communicate at an appropriate date their requirements on the basis of the information listed in the appropriate sections of Appendix 1 to the Radio Regulations.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 2-E
15 August 1984
Original : French

PLENARY MEETING

Note by the Secretary-General

CREDENTIALS OF DELEGATIONS

1. Under Article 67 of the International Telecommunication Convention, Nairobi, 1982, the delegations sent by a Member of the Union to a conference shall be duly accredited in accordance with Nos. 381 to 387 of the Convention.

2. For ready reference, I hereby transmit to the Conference the text of the aforesaid Article 67 (see Annex).

R.E. BUTLER
Secretary-General

Annex : 1

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ANNEX

ARTICLE 67

Credentials for Delegations to Conferences

380 1. The delegation sent by a Member of the Union to a conference shall be duly accredited in accordance with Nos. 381 to 387.

381 2. (1) Accreditation of delegations to Plenipotentiary Conferences shall be by means of instruments signed by the Head of State, by the Head of the Government or by the Minister for Foreign Affairs.

382 (2) Accreditation of delegations to administrative conferences shall be by means of instruments signed by the Head of State, by the Head of the Government, by the Minister for Foreign Affairs or by the Minister responsible for questions dealt with during the conference.

383 (3) Subject to confirmation prior to the signature of the Final Acts, by one of the authorities mentioned in Nos. 381 or 382, delegations may be provisionally accredited by the Head of the diplomatic mission of the country concerned to the government of the country in which the conference is held. In the case of a conference held in the country of the seat of the Union, a delegation may also be provisionally accredited by the Head of the Permanent Delegation of the country concerned to the United Nations Office at Geneva.

384 3. Credentials shall be accepted if they are signed by the appropriate authority mentioned under Nos. 381 to 383, and fulfil one of the following criteria:

385 – they confer full powers;

386 – they authorize the delegation to represent its government, without restrictions;

387 – they give the delegation, or certain members thereof, the right to sign the Final Acts.

388 4. (1) A delegation whose credentials are found to be in order by the Plenary Meeting shall be entitled to exercise the right to vote of the Member concerned and to sign the Final Acts.

389 (2) A delegation whose credentials are found not to be in order by the Plenary Meeting shall not be entitled to exercise the right to vote or to sign the Final Acts until the situation has been rectified.

390 5. Credentials shall be deposited with the secretariat of the conference as early as possible. A special committee as described in No. 471 shall be entrusted with the verification thereof and shall report on its conclusions to the Plenary Meeting within the time specified by the latter. Pending the decision of the Plenary Meeting thereon, a delegation of a Member of the Union shall be entitled to participate in the conference and to exercise the right to vote of the Member concerned.

391 6. As a general rule, Members of the Union should endeavour to send their own delegations to conferences of the Union. However, if a Member is unable, for exceptional reasons, to send its own delegation, it may give the delegation of another Member powers to vote and sign on its behalf. Such powers must be conveyed by means of an instrument signed by one of the authorities mentioned in Nos. 381 or 382.

392 7. A delegation with the right to vote may give to another delegation with the right to vote a mandate to exercise its vote at one or more meetings at which it is unable to be present. In such a case it shall, in good time, notify the Chairman of the conference in writing.

393 8. A delegation may not exercise more than one proxy vote.

394 9. Credentials and the transfer of powers sent by telegram shall not be accepted. Nevertheless, replies sent by telegram to requests by the Chairman or the secretariat of the conference for clarification of credentials shall be accepted.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 3-E
18 September 1984

PLENARY MEETING

Note by the Secretary-General

At the request of the Director of the CCIR, I have the honour to transmit herewith a copy of a Report by CCIR Study Group 8 to the Conference, established in response to Resolution No. 704 of the WARC Mobile Services (Geneva, 1983).

R.E. BUTLER
Secretary-General

Annex: mentioned

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[Doc. 3]

INTERNATIONAL TELECOMMUNICATION UNION

CCIR

INTERNATIONAL
RADIO CONSULTATIVE
COMMITTEE

REPORT

TO THE REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

Geneva, 1984

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INTERNATIONAL TELECOMMUNICATION UNION

CCIR

INTERNATIONAL
RADIO CONSULTATIVE
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REPORT

TO THE REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

Geneva, 1984

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C C I R

REPORT

TO THE

REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

1985

FOREWORD

Resolution No. 704 (Mob-83) of the World Administrative Radio Conference for the Mobile Services, Geneva, 1983, relating to the Holding of a Regional Administrative Radio Conference to prepare frequency assignment plans for the Maritime Mobile Service in the bands between 435 kHz and 526.5 kHz and in parts of the band between 1 606,5 kHz and 3 400 kHz in Region 1 and to plan for the Aeronautical Radionavigation Service in the band 415 - 435 kHz in Region 1, requested the CCIR to establish the necessary technical basis.

CCIR Study Group 8, at its Interim Meeting held in 17 May - 6 June, 1984, studied this question and prepared the following Report, constituting the CCIR Report to the Conference.

The list of references to CCIR texts (Recommendations, Reports, etc. and their source document) is given on page ii.

Richard C. Kirby
Director

LIST OF CCIR TEXTS REFERRED IN THIS REPORT

Recommendation 332	Volume I (Geneva, 1982)
Recommendation 368	Volume V (Geneva, 1982)
Recommendation 435	Volume VI (Geneva, 1982)
Recommendation 476	Volume VIII (Geneva, 1982)
Report 258	Volume VI (Geneva, 1982)
Report 266	Volume VI (Geneva, 1982)
Report 322	Separate publication
Report 910	Annex III to this Report
Draft Report AC/6	Annex II to this Report
Draft Report AR/8	Interim Booklet, Study Group 8 (Doc. 8/294)
Question 32/3	Volume III (Geneva, 1982)
Question 44/10	Volume X (Geneva, 1982)
Study Programme 44M/10	Volume X (Geneva, 1982)
Question 38/8	Volume VIII (Geneva, 1982)
Draft Question BE/8	Interim Booklet, Study Group 8, (Doc. 8/294)

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CCIR REPORT TO THE REGIONAL ADMINISTRATIVE RADIO CONFERENCE

FOR THE MARITIME MOBILE SERVICE AND THE
AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS
OF THE MF BAND IN REGION 1

FREQUENCY ASSIGNMENT PLANNING IN REGION 1 IN THE BANDS BETWEEN
435 kHz - 526.5 kHz AND IN PARTS OF THE BAND BETWEEN
1 606.5 kHz - 2 160 kHz FOR THE MARITIME MOBILE SERVICE AND
IN PARTS OF THE BANDS BETWEEN 415 kHz - 526.5 kHz FOR
THE AERONAUTICAL RADIONAVIGATION SERVICE

PRINCIPLES AND CRITERIA

1. Introduction

1.1 As indicated in Resolution 704 (MOB-83) of the World Administrative Radio Conference for the Mobile Services, 1983, CCIR is requested to prepare any necessary technical bases for the preparation of frequency plans in the relevant bands. The frequency planning conference (RARC 85) is scheduled to be held early in 1985.

1.2 The future use of the affected bands is as follows :

415 kHz - 526.5 kHz :

- Maritime mobile service
  - Narrow Band Direct Printing (NBDP) (F1B or J2B)
  - Digital Selective Calling (DSC) (F1B or J2B)
  - Morse Telegraphy (A1A)
- Aeronautical radionavigation service
  - Non-Directional Beacons (NDB) (NON/A1A and A2A).

1 606.5 kHz - 2 160 kHz :

- Maritime mobile service
  - Narrow Band Direct Printing (NBDP) (F1B or J2B)
  - Digital Selective Calling (DSC) (F1B or J2B)
  - Single-Sideband Radiotelephony (J3E).

1.3 Criteria for establishing frequency plans in Region 1 in the bands mentioned in paragraph 1.2 are given below.

2. Planning criteria

2.1 Maritime mobile service

2.1.1 Frequency bands between 415 kHz - 526.5 kHz

2.1.1.1 Service area

The area as put forward by the administration having authority over the coast station concerned within which the minimum field strength and protection criteria have to be met.

2.1.1.2 Minimum field strength

The minimum necessary field strength for the different categories of service depends primarily on the maximum local atmospheric noise level. Detailed information on this subject is contained in Report 322.

From this report can be concluded that the atmospheric noise level can be expected to vary widely. This variation depends on factors such as geographical position, period of the year and the day; also significant deviations from the median value are shown.

Furthermore, the man-made noise levels at a coast station (see Report 258) and on board ships may also be significant. The effects of these noise contributions have not been taken into account in the following considerations.

The minimum necessary field strength depends also on the required protection ratio at the receiver (see section 2.1.1.3).

In order to retain maximum possibilities for sharing of frequencies with other services or stations of the same service, the field strength, at the edge of the service area, should be kept to the minimum values as specified below.

i) NBDP/DSC

Taking account of the normally expected variation of noise levels (excluding abnormal increases of these levels), the required signal-to-noise ratio for NBDP and DSC systems and assuming a receiver noise bandwidth of 300 Hz, it is concluded that a minimum field strength of 25 dB(μV/m)(18 μV/m) is necessary for the area north of 30°N.

In the area south of 30°N, where the noise level is higher, the minimum necessary field strength should be increased by 20 dB resulting in 45 dB(μV/m)(178 μV/m).

ii) A1A

Recommendation 339-5 indicates that a 5 dB higher field strength is needed for aural reception of Morse signals compared with MFSK systems. This Recommendation does not refer to NBDP systems. However because of the similarity between 300 Hz MFSK and NBDP systems it is concluded on the basis given in i) above, that the minimum necessary field strength for A1A signals should be 30 dB(μV/m)(32 μV/m) in areas north of 30°N.

In the area south of 30°N, the minimum field strength should be 50 dB(μV/m) (316 μV/m).

Note - In the 1974 SOLAS Convention, as amended, it is indicated (Chapter IV, Regulation 10 (g)) that a clearly perceptible Morse signal will normally be received if the r.m.s. value of the field strength at the receiver is at least 50 μV/m (34 dB(μV/m)). In this connection, it is recognized that the noise level at the receiver site should also be considered (see Report 258 on man-made noise).

2.1.1.3 Protection ratio

The protection ratio has an impact on the minimum usable field-strength on the edge of the service area.

The protection ratio (see Radio Regulation 164), required for :

i) NBDP and DSC : at least 8 dB throughout the service area;

ii) A1A : at least 8 dB throughout the service area (see Note).

Note - This value is indicated for the purpose of planning, but needs further study.

2.1.1.4 Receiver selectivity characteristics

Unwanted signals should be assumed to be attenuated as a function of the frequency difference between the wanted signal and the unwanted signal as follows :

i) NBDP/DSC

TABLE I

Frequency difference[1] Hz	**Attenuation** dB
175	6
300	30
550	60

[1] **Relative to nominal frequency.**

It is possible with filters having the above amplitude characteristic to achieve a phase characteristic consistent with good reproduction of the data stream.

Tests have shown that a receiver having this characteristic had an adjacent channel rejection ratio (F1B to F1B) of 35 dB.

ii) A1A

TABLE II

Mode	Frequency difference[1] kHz	Attenuation dB
A1A	0.5	12
	1.0	25
	1.5	35
	2.0	43
	2.5	50
	3.0	57
	3.5	63
	4.0	70
	4.5	77

[1] Relative to nominal frequency.

For more detailed specifications of commonly used shipborne main receivers see Annex I.

Tables I and II may be used in protection calculations when the interfering signal is either A1A, DSC or NBDP.

Table II could also be used in protection calculations when the interfering signal is that from a typical aeronautical radiobeacon in Region 1. Table I, however, may not be used for this purpose.

Report 910 (MOD-I) gives an example of the effects of an interfering signal having a relative wide bandwidth, as in the case with some aeronautical radiobeacons, on a receiver with a narrow passband. Further information on this subject is required.

Note - It may be assumed that in the introduction phase of NBDP in this band a number of ship stations will employ a receiver having a selectivity as shown in Table II.

2.1.1.5 Propagation

The following propagation curve from Recommendation 368-4 should be used : Seapath : Figure 1, $\varepsilon = 70$, $\sigma = 5$ S/m for 500 kHz. For the effects of sky-wave propagation, see paragraph 3.

Note - Other Figures of the same Recommendation are to be used if land or mixed sea-land paths are involved.

2.1.1.6 Assignable frequencies

See Appendix I to Resolution 704 (MOB-83).

2.1.2 Frequency bands between 1 606.5 kHz and 2 160 kHz

2.1.2.1 Service area

See 2.1.1.1 above.

2.1.2.2 Minimum field strength

Consideration, as under 2.1.1.2, has led to the following values for this band :

i) NBDP and DSC

for areas north of 30°N : 16 dB(μV/m) (6.3 μV/m);

for the area south of 30°N : 36 dB(μV/m) (63 μV/m); assuming a receiver bandwidth of 300 Hz.

ii) J3E

for areas north of 30°N : 34 dB(μV/m) (50 μV/m);

for the area south of 30°N : 54 dB(μV/m) (500 μV/m); assuming a receiver bandwidth of 3 kHz.

2.1.2.3 Protection ratio

The protection ratio (see Radio Regulation 164), required for :

i) NBDP and DSC : at least 8 dB throughout the service area;

ii) J3E : at least 20 dB throughout the service area. See also the Note to paragraph 2.1.1.3.

2.1.2.4 Receiver selectivity characteristics

Unwanted signals should be assumed to be attenuated as a function of the frequency difference between the wanted signal and the unwanted signals as follows :

i) NBDP/DSC

As in Table I in paragraph 2.1.1.4.

The note to this paragraph, which refers to the possible use of receivers having a selectivity as shown in Table II, is also relevant in this respect.

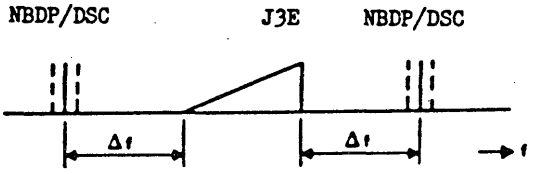
ii) J3E

TABLE III

Frequency difference[1] kHz	Attenuation dB
2.5	40
3	45
6.5	60

[1] Relative to nominal frequency.

To protect J3E signals against interference from NBDP/DSC and vice-versa, the following adjacent channel criteria may be used :



i) Protection for J3E against NBDP/DSC signals :

Δf = 500 Hz, attenuation = 36 dB

Δf = 1 kHz, attenuation = 41 dB.

ii) Protection for NBDP/DSC against J3E signals :

Δf = 500 Hz, attenuation = 36 dB

Δf = 1 kHz, attenuation = 39 dB.

2.1.2.5 Propagation

The following propagation curves , CCIR Recommendation 368-4 should be used : sea-path : Figure 1, ε = 70, σ = 5 S/m for 2 MHz. For the effects of sky-wave propagation see paragraph 3.

Note - Other Figures of the same Recommendation are to be used if land or mixed sea-land paths are involved.

2.1.2.6 Assignable frequencies

See Appendix II to Resolution 704 (MOB-83).

2.1.2.7 Directional antennas

The use of directional antennas could improve the sharing and planning possibilities (see draft Report AR/8 (Document 8/245)).

2.2 Aeronautical radionavigation service (frequency bands between 415 kHz and 526.5 kHz)

2.2.1 Service area

The area surrounding the radiobeacon, as put forward by the administration having authority over the radiobeacon concerned, within which the minimum field strength and protection criteria have to be met.

The service area is normally circular and is defined by the service range (in kilometers).

2.2.2 Minimum field strength

- 70 µV/m (37 dB(µV/m)) for radiobeacons north of 30°N and south of 30°S
- 120 µV/m (41.6 dB(µV/m)) for radiobeacons between 30°N and 30°S

Note - For the frequency band 415 - 435 kHz these values are included in Radio Regulation 2857.

2.2.3 Protection ratio

At least 15 dB throughout the service area of the radiobeacon.

Note - For the frequency band 415 - 435 kHz this value is contained in Radio Regulation 2854.

2.2.4 Receiver selectivity characteristics

Unwanted signals should be assumed to be attenuated as a function of the frequency difference between the wanted signal and the unwanted signal as given in Table IV :

TABLE IV

Frequency difference kHz	Attenuation dB
0	0
1	6
3	35
5	65
6	80

(See also Attachment B to Part II of Volume I of Annex 10 to the Convention on International Civil Aviation.)

2.2.5 Propagation

The following propagation curves from Recommendation 368-4 should be used :

i) Sea path : Figure 1 with $\varepsilon = 70$ and $\sigma = 5$ S/m (500 kHz);

ii) Land path : Figure 3 with $\varepsilon = 30$ and $\sigma = 10^{-2}$ S/m (500 kHz).

Note - When sky-wave propagation is experienced the usable service area may be reduced.

2.2.6 Assignable frequencies

Frequency assignments are expected to be made on integral multiples of 1 kHz.

3 Further considerations on propagation characteristics

3.1 Sky-wave effects

It should be noted that sky-wave propagation, which occurs mainly during night time, could considerably extend the coverage area of a station. This extension can also increase the interference level within the service areas of other stations of the same or other services. Draft Report AC/6 (see Annex II) can be used as guidance material.

3.2 Propagation variations

As indicated in Recommendation 435 and Report 266 the sky-wave field strength is subject to variability. In addition the atmospheric noise field strength also varies as indicated in Report 322. It may be necessary to take these variations into account.

4. Sharing with other services

4.1 415 kHz - 526.5 kHz

Investigation of frequency sharing possibilities between the aeronautical radionavigation service and the maritime mobile service should be based on the planning parameters as identified in paragraphs 2 and 3.

Report 910 (MOD-I) gives further information on how this frequency sharing can be achieved (Annex III).

4.2 1 606.5 - 2 160 kHz

The technical criteria pertaining to the sharing of certain parts of the band have not yet been developed by the CCIR. This issue pertains to the protection of the mobile service and the fixed and broadcasting services from mutual interference, between and within regions, in those parts of the various bands that may be shared. See Question 32/3, Question 44/10, Study Programme 44M/10, Question 38-1/8, and draft Question BE/8 (Document 8/222).

4.3 The use of directional antennas, if viable, could improve the sharing possibilities (see draft Report AR/8 (Document 8/245)).

5. General receiver characteristics

For information purposes the performance characteristics of maritime mobile main receivers for use on board sea going ships including the methods of measurement are given in Annex I.

Annexes : 3

ANNEX I

PERFORMANCE CHARACTERISTICS OF MARITIME MOBILE MAIN RECEIVERS ON BOARD SEA-GOING SHIPS *

1 GENERAL CONDITIONS OF MEASUREMENT

1.1 Impedance of Test Signal Sources

1.1.1 The test signal shall be derived from a resistive source of 50 ohms, or of an artificial antenna consisting of a 10 ohms resistor in series with a 250 pF capacitor.

1.2 Test Signals Applied to the Receiver Input

1.2.1 Sources of test signals for application to the receiver input shall be connected through a network such that the impedance presented to the receiver input is equal to that of the artificial antennas specified in paragraph 1.1.
This requirement shall be met irrespective of whether one, two or more test signals are applied to the receiver simultaneously. In the case of multiple test signals, steps shall be taken to prevent any undesirable effects due to interaction between the signals in the generators or other sources.

1.2.2 The levels of test input signals shall be expressed in terms of the e.m.f. which would exist at the output terminals of the source including the associated network referred to in Paragraph 1.2.1.

1.2.3 Normal Test Signals

Except where otherwise stated normal radio-frequency test signals applied to the receiver input shall be as given below.

1.2.3.1 Class of Emission A1A

Unmodulated signal, frequency equal to the carrier frequency.
(Where necessary the beat-frequency oscillator is adjusted to give an audio tone of 1000 Hz).

1.2.3.2 Classes of Emission A2A/H2A and A3E/H3E

Double-sideband signal, modulation frequency 800 Hz, modulation depth 30 percent.

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* Receivers complying with these characteristics also comply with the 1974 SOLAS Convention, as amended.

1.2.3.3 Class of Emission J3E

Unmodulated signal 1000 Hz ± 3 Hz above the carrier frequency to which the receiver is tuned.

1.3 Receiver Output

1.3.1 The output power shall be measured in a resistor of a value substantially equal to the modulus of the impedance of the headphone or loudspeaker whichever is appropriate.

1.3.2 The standard output power referred to in this Annex shall be measured at a frequency of 1000 Hz or 800 Hz and shall be:
a. for headphone reception 1 mW
b. for loudspeaker reception 50 mW.

1.3.3 The rated output power is the value of the maximum available output power as stated by the manufacturer.
The receiver shall be capable of delivering rated output power of 500 mW into the loudspeaker with a harmonic content not exceeding 10 percent.

2 ELECTRICAL SPECIFICATIONS

2.1 Tuning Error and Tuning Drift

2.1.1 Definitions

Tuning error is the amount by which the frequency indicated on the receiver differs from the carrier frequency of an input signal to which the receiver is actually tuned.

Tuning drift is the amount by which the tuning changes over a period of time, in the absence of adjustments to the receiver.

2.1.2 Method of Measurement of Tuning Error

The measurement shall be performed in the J3E mode of operation. An unmodulated radio frequency test signal, representing the nominal carrier frequency plus 1000 Hz shall be applied to the input of the receiver, the frequency accuracy of the test signal being ± 3 Hz. With the speech clarifier (where provided) set in the middle of its range the receiver shall be adjusted so that the corresponding carrier frequency is read on the frequency indicator of the receiver. The output frequency shall then be measured and the difference between 1000 Hz and the measured output frequency determined. For receivers with incremental tuning by means of a synthesizer this value shall be recorded as the tuning error. For receivers with continuous tuning the test shall be repeated after the receiver tuning control has been changed by an amount sufficient to take up slack in the mechanism and returned to the chosen nominal carrier frequency from the direction opposite to that used for the first measurement. This procedure shall be repeated a number of times, the tuning error of the receiver being determined by taking the root mean square value of all the results so obtained. If a calibration procedure is specified by the manufacturer this may be carried out once of each range of frequencies for which the receiver is designed.

Measurements shall be carried out at a number of frequencies sufficient to establish the tuning error over all the ranges of frequency for which the receiver is designed.

2.1.3 Specified Limits of Tuning Error

For incremental tuning, the tuning error shall not exceed 50 Hz. For continuous tuning, the tuning error shall not exceed 150 Hz.

2.1.4 Method of Measurement of Tuning Drift

The measurement shall be performed in the J3E mode of operation. For receivers with continuous tuning a test signal shall be applied at an appropriate test frequency and the receiver shall be tuned so that the frequency of the output signal is 1000 Hz. For receivers with incremental tuning, an unmodulated radio frequency test signal, representing the nominal carrier frequency plus 1000 Hz shall be applied to the input of the receiver, the frequency accuracy of the test signal being ± 3 Hz. The speech clarifier of the receiver shall be set to a position near the middle of its range. The input frequency shall be kept constant and the output frequency shall then be measured at suitable intervals of time, the results being used to determine the tuning drift. During these measurements the ambient temperature shall be held constant (±3 °C).

2.1.5 Specified Limits for Tuning Drift

In any period of 15 minutes after the warming-up period specified in Paragraph 3.7 the difference between the output frequency at any moment and the output frequency at the commencement of the 15 minutes period shall not exceed 20 Hz.

2.2 Speech Clarifier for Reception of J3E

The tuning arrangements of the receiver shall be capable of reducing the frequency error to 5 Hz or less. This may be done by means of a fine tuning control or speech clarifier.
The movement and the range of the fine tuning or clarifier control shall be sufficient to permit the adjustment to be easily performed. The frequency range of the fine tuning control or speech clarifier shall be at least ± 150 Hz and not more than ± 500 Hz.

2.3 Audio Frequency Passband

2.3.1 Definition

The audio frequency passband measured at the output of the receiver, is the frequency band in which the attenuation relative to peak response does not exceed 6 dB.

2.3.2 Method of Measurement

A test signal with a level of +60 dB relative to 1 μV (e.m.f.) modulated to a depth of 30% at 1000 Hz shall be applied to the receiver input, and the receiver shall be adjusted to give standard output power. The modulation frequency shall then be varied, maintaining a constant depth of 30%, and the output level corresponding to each modulating frequency shall be measured. The wide bandwidth shall be used for this test.

2.3.3 Limits

The audio frequency passband shall exceed 350 to 2700 Hz. The attenuation relative to peak response shall be at least 20 dB at 6 kHz.

2.4 Maximum Usable Sensitivity

2.4.1 Definition

The maximum usable sensitivity is the minimum level (e.m.f.) of a radio frequency input signal with specified modulation which will produce at the receiver output a chosen value of signal plus noise plus distortion to noise ratio (abbreviated SND/N) or of signal plus noise plus distortion to noise plus distortion ratio (abbreviated SND/D) and, at the same time an output power not less than the standard output power.

2.4.2 Methods of Measurements

With the automatic gain control operative tests shall be carried out with the receiver adjusted for each frequency range and class for which it is designed. The test input signal to the receiver shall be the normal test signal specified in Paragraph 1.2.3.

For each test the input level of the test signal shall be adjusted until the SND/D or SND/ND ratio at the receiver output is as specified in Paragraph 2.4.3 and at the same time at least the standard output power is obtained. The measured input level is the maximum usable sensitivity.

2.4.3 Specified Limits

2.4.3.1 Test Signal Source 50 ohms

With a test signal source of 50 ohms the maximum usable sensitivity shall be better than the values given in Table V :

TABLE V

demodulation	bandwidth	SND/ND dB	maximum level of the input signal dB (µV) e.m.f.
A1A	narrow	20	+10
A2A	intermediate	20	+30
J3E	SSB	20	+16
A3E	wide	20	+30

2.4.3.2 Test Signal Source 10 ohms - 250 pF

When a test signal source consisting of a 10 ohms resistor in series with a 250 pF capacitor is used in the frequency ranges 160 - 535 kHz and 1605 - 4000 kHz the specified limits in Table VI apply for the maximum usable sensitivity.

TABLE VI

demodulation	bandwidth	SND/ND dB	maximum level of the input signal dB (µV) e.m.f.	No.
A1A	narrow	10	+20	1
A2A	intermediate	10	+30	1
J3E	SSB	20	+16	2
A3E	wide	20	+30	2

1. frequency range 160 - 535 kHz
2. frequency range 1605 - 4000 kHz.

2.5 Adjacent-Signal Selectivity

2.5.1 Definition

Adjacent-signal selectivity is defined as the ability of the receiver to discriminate between the wanted signal (to which the receiver is tuned) and unwanted signals (having frequencies generally outside the passband), the wanted and unwanted signals acting simultaneously. The adjacent-signal selectivity is defined as the ratio of the levels at the receiver input, of a specified unwanted signal to a specified wanted signal, which result in a reduction of the SND/N or SND/ND ratio, from 20 dB to 14 dB.

2.5.2 Method of Measurement

The arrangements for applying two test signals to the receiver input, shall be according to Paragraph 1.2.1. The automatic gain control shall be in operation. The test signals shall be as shown in Table VII :

TABLE VII

Filter	Class of Emission	Wanted signal Modulation	Unwanted signal Modulation
Single Sideband	J3E/R3E	Paragraph 1.2.3.3	30% at 400 Hz
Wide	A3E/H3E	30% at 1000 Hz	30% at 400 Hz
Intermediate	A2A/H2A	30% at 400 Hz	30% at 1000 Hz
Narrow	A1A	Paragraph 1.2.3.1*	30% at 400 Hz

* The Beat frequency oscillator is adjusted to give an audio tone of 1000 Hz.

The receiver shall be adjusted to give standard output power on the wanted frequency, and to give a SND/N or SND/ND ratio, of 20 dB.

The level of the unwanted signal shall be increased (starting from a low level) until the SND/N or SND/ND ratio is decreased.

2.5.3 Specified Limits

The adjacent-signal selectivity shall exceed the values given in Tables VIII, IX, X and XI.

TABLE VIII

Single Sideband Filter

Carrier frequency of unwanted signal relative to carrier frequency of wanted signal	Adjacent-signal selectivity
-1 kHz and +4 kHz	40 dB
-2 kHz and +5 kHz	50 dB
-5 kHz and +8 kHz	60 dB

TABLE IX

Wide Bandwidth

Carrier frequency of unwanted signal relative to carrier frequency of wanted signal	Adjacent-signal selectivity
-10 kHz and +10 kHz	40 dB
-20 kHz and +20 kHz	50 dB

TABLE X

Intermediate Bandwidth

Carrier frequency of unwanted signal relative to carrier frequency of wanted signal	Adjacent-signal selectivity
-5.5 kHz and +5.5 kHz	40 dB
-7.5 kHz and +7.5 kHz	50 dB

TABLE XI

Narrow Bandwidth

Carrier frequency of unwanted signal relative to carrier frequency of wanted signal	Adjacent-signal selectivity
-1.75 kHz and +1.75 kHz	40 dB
-2.5 kHz and +2.5 kHz	50 dB

2.6 Two-signal Tests of Selectivity (blocking, cross-modulation and reciprocal mixing)

2.6.1 Blocking

Blocking is a change (reduction) in the wanted output power of a receiver, due to an unwanted signal on another frequency.

2.6.1.1 Methods of Measurement

The measurement shall be carried out with the automatic gain control operative, the RF/IF gain control at its maximum, and any input attenuator adjusted to minimum attenuation. The measurement shall be made by means of the simultaneous application of two test signals to the input of the receiver. One of the test signals is the wanted signal to which the receiver is tuned, and the other is the unwanted signal.

The measurement shall be carried out with an input level of the wanted signal of +60 dB relative to 1 μV (e.m.f.) and shall be repeated with the wanted signal at a level equal to the maximum usable sensitivity of the receiver.

The wanted test input signal to the receiver shall be the normal test signal specified in Paragraph 1.2.3.

The receiver shall be adjusted so that the wanted signal gives standard output power.

For measurements above 1605 kHz the unwanted signal shall have a frequency of ± 20 kHz relative to that of the wanted signal.

For measurements of the reception of classes A1A, A2A, H2A, A3E and H3E below 1605 kHz the unwanted signal shall have a frequency of ± 10 kHz relative to that of the wanted signal.

The unwanted signal shall be unmodulated. The input level of the unwanted signal shall be adjusted until it causes a change of 3 dB in the output level of the wanted signal. The input level of the unwanted signal, when the specified condition is reached, shall be taken as the blocking level.

When performing the above measurements, precautions have to be taken that the distortion components in the output signal do not influence the results appreciably.

2.6.1.2 Specified Limits

a. With the wanted signal +60 dB relative to 1 μV (e.m.f.) the level of the unwanted signal shall be not less than + 100 dB relative to 1 μV (e.m.f.)

b. with the wanted signal at a level equal to the maximum usable sensitivity, the level of the unwanted signal shall be at least +65 dB above the maximum usable sensitivity level.

2.6.2 Cross-modulation

Cross-modulation is the transfer of modulation from an unwanted, amplitude-modulated signal on another frequency, to the wanted signal.

2.6.2.1 Methods of Measurement

The measurement shall be carried out with the automatic gain control operative, the RF/IF gain control at its maximum and any input attenuator adjusted to minimum attenuation.
The measurement shall be made by means of the simultaneous application of two test signals to the input of the receiver. One of the test signals is the wanted signal to which the receiver is tuned and the other is the unwanted signal.

The wanted test input signal to the receiver shall be the normal test signal specified in par. 1.2.3 with a level of +60 dB relative to 1 µV e.m.f. The receiver shall be adjusted so that the wanted signal gives standard output power.
The amplitude modulation of the wanted signal shall then be switched off. For measurements above 1605 kHz, the unwanted signal shall have a frequency of ± 20 kHz relative to that of the wanted signal. For measurements of the reception of classes A2A, H2A, A3E and H3E below 1605 kHz, the unwanted signal shall have a frequency of ± 10 kHz relative to that of the wanted signal.

For the cross-modulation measurements the unwanted signal shall be modulated to a depth of 30% at 400 Hz.

The input level of the unwanted signal shall be increased until the total unwanted power in the receiver output due to cross-modulation is 30 dB below standard output power. The input of the unwanted signal, at which this condition is obtained, shall be taken as the cross-modulation level (level modulation transfer -30 dB).
When performing the above measurements precautions have to be taken that the distortion components in the output signal do not influence the results appreciably.

2.6.2.2 Specified Limits

For cross-modulation the level of the unwanted signal shall not be less than +94 dB relative to 1 µV e.m.f.

2.6.3 Reciprocal Mixing

Reciprocal mixing is the transfer from the noise sidebands of the receiver's local oscillator(s) to a wanted signal due to the presence of a wanted and/or unwanted signal.

2.6.3.1 Methods of Measurement

The measurement shall be carried out with the receiver in the mode of operation J3E, the automatic gain control operative, the RF/IF gain control at its maximum and any input attenuator adjusted to minimum attenuation. The measurements shall be made by means of the simultaneous application of two test signals to the input of the receiver. One of the test signals is the wanted signal to which the receiver is tuned and the other is the unwanted signal.

The wanted test input signal to the receiver shall be the normal test signal specified in par. 1.2.3 with a level of +60 dB relative to 1 µV e.m.f. The receiver shall be adjusted so that the wanted signal gives standard output power.

The unwanted signal shall have a frequency separation of ± 20 kHz or more relative to that of the wanted signal.
For the reciprocal mixing test the unwanted signal shall be unmodulated. The input level of the unwanted signal shall be adjusted until it causes a reduction of the SND/ND ratio down to 30 dB. The input level of the unwanted signal, when the specified condition is reached, shall be taken as the reciprocal mixing level.

2.6.3.2 Specified Limits

For reciprocal mixing the level of the unwanted signal shall not be less than +100 dB relative to 1 μV e.m.f.

2.7 Intermodulation

2.7.1 Definition

Intermodulation is a process by which signals are produced from two or more (generally unwanted) signals simultaneously present in a non-linear circuit.

2.7.2 Method of Measurement

2.7.2.1 Class of Emission J3E

With the automatic gain control (AGC) operative, the RF/IF gain control at its maximum, and any input attenuator adjusted to minimum attenuation, an unmodulated input signal 1000 Hz higher than the frequency to which the receiver is tuned shall be applied to the receiver input at a level of +30 dB relative to 1 μV and the audio frequency gain control shall be adjusted to give standard output power. The wanted signal shall then be removed and two equal in level, unmodulated signals shall be simultaneously applied to the input of the receiver. Neither of the two signals shall have a frequency within 30 kHz from the wanted signal (input frequencies likely to cause unwanted intermodulation products are mentioned in CCIR Recommendation 332-4, Section 6.4). When choosing the frequencies used for this measurement care should be taken to avoid frequencies at which spurious responses occur. The input levels of the two interfering signals shall remain equal and shall be adjusted until the output power of the receiver due to the interfering signals is equal to the standard output power.

If the output/input characteristic is not suitable for determining these input levels precisely, it should be ensured that the AGC settings are the same as with the wanted signal, for example by using the AGC voltage as the reference.

2.7.2.2 Classes of Emission A2A and H2A

The method of measurement is the same as for class of emission J3E with two exceptions:

a. the wanted test signal shall be a signal of the carrier frequency modulated to a depth of 30% at 1000 Hz

b. the unwanted signal which has the greatest frequency separation from the wanted signal, shall be modulated to a depth of 30% at 1000 Hz. The other unwanted signal shall be unmodulated.

2.7.3 Specified Limits

The level of each of the two interfering signals which result in standard output shall not be less than +90 dB relative to 1 μV e.m.f.

2.8 Selectivity (spurious responses)

2.8.1 Definition

The spurious response rejection ratio is the ratio of the input level of an unwanted signal, at the frequency of the spurious response, to the input level of a wanted signal, when the wanted and unwanted signals individually produce the same SND/N or SND/ND ratio at the receiver output.

2.8.2 Method of Measurement

The receiver controls shall be adjusted in accordance with Paragraph 5.5 (sensitivity test). All receiver controls shall remain unaltered during the remainder of the test. The carrier frequency of the input signal shall then be varied to search for spurious responses. For each spurious response found, the carrier frequency of the input signal shall be adjusted to give maximum output power. The input level shall then be adjusted to give a SND/N or SND/ND ratio of 20 dB at the output of the receiver.
The ratio between the input level of each spurious signal and the input of the wanted signal giving the same SND/N or SND/ND ratio, shall then be evaluated.

2.8.3 Specified Limits

The spurious response rejection ratio for the intermediate frequency, image frequency and all other spurious responses shall not be less than 70 dB.

2.9 Harmonic Content in Output

2.9.1 Definition

The harmonic content in the output of a receiver is the total r.m.s. voltage of all the individual harmonics of modulation frequencies, appearing at the receiver output as a result of non-linearity in the receiver.

For purposes of test it is expressed as a percentage of the total r.m.s. output voltage, when a single sinusoidal modulation is applied.

This test shall be performed under both single sideband and double sideband conditions and with both standard output power and rated output power. For single sideband tests the testsignal as defined in Paragraph 1.2.3.3 shall be applied to the receiver input. For double sideband tests the testsignal shall be modulated at 1000 Hz to a depth of 30% and then 80% (the wide bandwidth being used). The level of the input signal shall be varied between +30 dB and +90 dB relative to 1 μV (e.m.f.) while maintaining the output level at the standard output power and then at the rated power. The harmonic content shall then be measured.

2.9.3 Specified Limits

The harmonic content shall not exceed 10% at rated output power and 5% at standard output power.

ANNEX II

DRAFT

REPORT AC/6

PROPAGATION CURVES FOR THE MARITIME MOBILE, AERONAUTICAL RADIONAVIGATION AND MARITIME RADIONAVIGATION SERVICES

1. Introduction

In 1985, two Regional Administrative Radio Conferences (RARC) are to be held concerning maritime and aeronautical services, namely :

i) RARC for the maritime mobile service and aeronautical radionavigation service in certain parts of the MF band in Region 1;

ii) RARC for the planning of frequencies in the LF and MF bands used by maritime radiobeacons in the European Maritime Area.

The frequency bands of concern are as follows :

283.5 - 315	kHz	Maritime Radiobeacons
415 - 435	kHz	Maritime Mobile and Aeronautical Radionavigation
435 - 526.5	kHz	Maritime Mobile
505 - 526.5	kHz	Aeronautical Radionavigation
1 606.5 - 1 625	kHz	Maritime Mobile
1 635 - 1 800	kHz	Maritime Mobile
2 045 - 2 160	kHz	Maritime Mobile

In establishing frequency assignment plans, the Conferences will need to consider two related problems : adequate coverage of the service area and minimization of interference. Propagation prediction data are needed to analyze these problems and examples are presented here of propagation curves which may be employed. In these examples, it is assumed that the propagation paths lie entirely over the sea, with both terminals unobstructed by land.

2. Coverage

For the services of interest, the coverage will be provided in most cases by the ground wave. Curves X and Y in Figure 1 correspond to ground-wave propagation (obtained from Recommendation 368-4) and represent the steady-state field strength as a function of distance, resulting from 1 kW e.m.r.p. with a short vertical monopole. The Recommendation also provides for the estimation of field strength over a path that is partly over land. In such cases, the coverage would be reduced.

3. Interference

Harmful interference may occur between the users of one service, and in some cases, between stations of different services using the same bands. Examples of high field strength conditions are shown in Figure 1 by curves A-D which correspond to sky-wave (ionospheric) propagation and represent the median night-time sky-wave field strength from 1 kW e.m.r.p. with a short vertical monopole. In practice, the received sky-wave field strength will be subject to fading and values above and below the median will occur (Report 266-5).

The sky-wave curves were calculated using the method of Recommendation 435-4. They contain a correction for sea-gain and apply to conditions at sunspot minimum and to midnight - circumstances under which the field strength would be expected to be at a maximum.

Figure 1 shows that beyond a certain distance, sky-wave propagation dominates at night-time, and thus this mode of propagation should be taken into account in an assessment of interference at night. The sky-wave field strength is a sensitive function of the location and orientation of the propagation path with respect to the geomagnetic field and the curves given here include examples for low and high latitudes. For the frequency range of interest, however, both ground-wave and sky-wave field strengths are not particularly sensitive functions of frequency for such sea paths. The oscillations appearing in the sky-wave curves for distances beyond about 1 000 km arise from the effect of variations in the vertical radiation angle (different propagation modes) and of the high conductivity of sea water. In day-time, the ground-wave curves apply, but it should be noted that in winter, day-time sky-wave field strengths at the lower frequencies of interest (i.e. around 300 kHz) may be only some 10 dB below night-time values and therefore may need to be considered in an interference assessment.

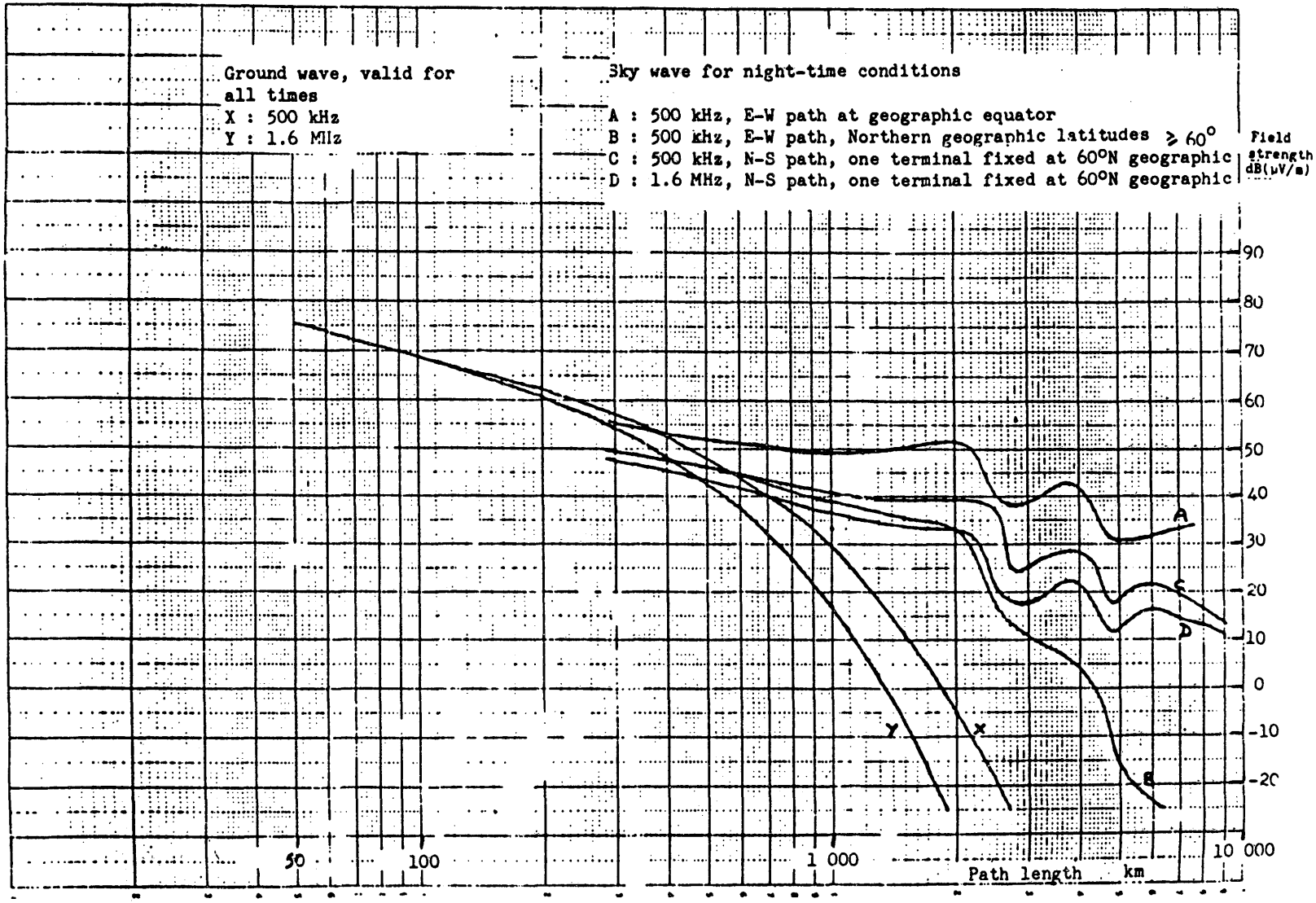

FIGURE 1 - MF curves for oversea propagation for 1 kW e.m.r.p.

ANNEX III

DRAFT

REPORT 910(MOD-I)

SHARING BETWEEN THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN THE BAND 415-526.5 kHz

(Question 53/8)

1. Introduction

The frequency band 415-526.5 kHz is allocated to both the maritime mobile service and the aeronautical radionavigation service. ~~In this band these two radio services have the following status (Region 1):~~

In the maritime mobile service, the frequency 518 kHz is used exclusively for the transmission by coast stations of navigational warnings and urgent information to ships, by means of narrow-band direct-printing telegraphy (also called Navtex).

Because of differences in operational use, frequency planning, radiated power, etc., coexistence of these two radio services in the same bands may present problems. Particular attention is required with respect to the problems which have their origin in the difference in the power levels used.

The aeronautical radio navigation service, operating at power levels which are 20-30 dB lower than those of the maritime mobile service, has a more difficult problem in the protection against interference.

It is essential that suitable criteria, which will permit coexistence of the two services in the same band, be developed as soon as possible.

The following examination is restricted to:

(a) geographical separation (co-channel);

(b) frequency separation (co-location);

(c) combination of (a) and (b) with variable geographical distance and frequency separation.

Also certain variations in the power level radiated by stations in the maritime mobile service and the effect of a more selective automatic direction finding (ADF) receiver are examined.

Only interference caused by ground-wave propagation is considered in this report.

2. Factors involved

2.1 *Differences in radiated power levels*

2.1.1 The maritime mobile service provides communications between coast stations and ship stations or between ship stations. There are no protection criteria in the Radio Regulations governing the maritime mobile service in the bands between 435 kHz and 526.5 kHz.

Normally the ~~The~~ output power of coast station transmitters is of the order of 1-2 kW. With an aerial efficiency of 30% the e.r.p. is then 300-600 W. However, an aerial efficiency of 1-30% may be used in some cases.

Technical characteristics of Navtex stations are in accordance with CCIR Recommendation 476-3, 100 baud F1B, providing a necessary bandwidth of 304 Hz.

Ship stations normally use 400 W transmitters. If the aerial efficiency is 10% the e.r.p. is 40 W.

2.1.2 In the aeronautical radionavigation service in some ~~most~~ cases transmitters of about 50 W are used, but the e.r.p. is in the order of 0.5 W. A typical aeronautical beacon in the European area has a range of 50 NM with an e.r.p. of less than 1 W. In other areas beacons with a range of about 200 NM are quite common.

~~A typical aeronautical beacon in the European Region has a range of 50 NM with an e.r.p. of less than 1 W.~~ The ICAO standard on radiated power states that, "The power radiated from a NDB shall not exceed by more than 2 dB that necessary to achieve the agreed rated coverage..." (Annex 10 to the Convention on International Civil Aviation, Vol. I, Part I, § 3.4.3.) Other characteristics of the beacon, both as prescribed by ICAO (Annex 10) and the operational use of the beacon, need also to be taken into consideration.

2.2 *Protection ratio desired/undesired signal in the aeronautical radionavigation service*

The protection figure of 15 dB quoted in the Radio Regulations No. 2854 applies to bands below those concerned in this Report. The Radio Regulations make no statement on the protection figure to be applied to aeronautical NDBs between 435 and 526.5 kHz. However, the figure of 15 dB has been taken as applicable for the purposes of this report.

2.3 *Automatic direction finding (ADF) receiver selectivity*

The extent to which the ADF receiver is capable of suppressing undesired frequencies is governed by the ADF receiver selectivity curves (See Fig. 1).

For a given frequency separation between stations, a selectivity curve with steeper slopes will reduce the minimum geographical distance required between stations in the maritime mobile service and the aeronautical radionavigation service. However, because the ADF receiver is required to receive signals with a bandwidth of about 2 kHz, steeper slopes will have a negligible effect for frequency separations less than 1 kHz.

2.4 The separation distance required between a NDB and a coast station once established will remain fixed provided their respective frequencies and powers do not change. The required separation between a NDB and a ship station will vary depending on the position of the ship, its transmitter power and its frequency. To allow for these variable parameters an area extending inland from the coast will require particular consideration.

2.5 Navtex considerations

Protection to Navtex receivers : Annex I describes signal-to-interference and off-frequency rejection protection required for Navtex receivers, and provides an example of separation distances necessary to prevent interference to Navtex.

2.6 Protection to ADF receivers from Navtex transmissions : Because of the relatively small Navtex emission bandwidth, ADF selectivity curves of Figure 1 can be used to describe off-frequency rejection protection required to ADF receivers from Navtex transmissions. Annex II provides an example of separation distances necessary to prevent interference to the aeronautical radionavigation service.

3. Examples of planning calculations

3.1 For the examples of calculations given below the following assumptions are used:

3.1.1 *General*

Frequency:	500 kHz
Propagation conditions:	CCIR curve Recommendation 368-3 (see Note) (Kyoto, 1978), Fig. 3 ($\sigma = 10^{-2}$ S/m; $\varepsilon = 4$) (only ground wave propagation has been taken into account).

Note - This Recommendation has been superseded by Recommendation 368-4.

3.1.2 *Maritime mobile service*

Coast stations:	e.r.p. 500 W
Ship stations:	e.r.p. 50 W.

3.1.3 *Aeronautical radionavigation service*

Field strength at limits of coverage:	70 μV/m (36.9 dB (1 μV/m)) (see Radio Regulations No. 2857)
Protection ratio (day-time):	15 dB
ADF receiver selectivity:	Convention on International Civil Aviation, Annex 10, Volume I, Att. B to Part II, § 3 (see Fig. 1, curve A)

3.2 The curves in Fig. 2 represent the minimum frequency separation between a station in the maritime mobile service and a station in the aeronautical radionavigation service as a function of the geographical separation between these stations.

The various curves refer to different service ranges of the aeronautical radio beacon.

If the coast station lies within the operational range of the aeronautical beacon, the minimum frequency separation is a function of the difference in field strength of each service at the location of the coast station. If the coast station lies outside the operational range of the aeronautical beacon then the frequency separation is determined by the difference in field strength of each service at the limit of the coverage of the aeronautical beacon.

The maximum frequency separation is required when the operational range of the aeronautical radiobeacon is equal to the geographical separation of the two stations involved. This frequency separation is 6.4 kHz in the case of a coast station with an e.r.p. of 500 W. It can also be concluded that with a distance of 650-700 km between the two stations the minimum frequency separation is 0 kHz.

Note 1. – For frequencies lower than 500 kHz this distance will increase; for a frequency of 400 kHz this distance is about 950 km.

Note 2. – For sea-path propagation conditions (σ = 5 S/m; ε = 80) the minimum distance in the co-frequency case is 1400 km (at 500 kHz).

3.3 Figure 3 shows how the minimum frequency separation is affected by the power of the coast station transmitter in the case of the aeronautical beacon operational range of 75 km.

3.4 Figure 4 shows the effect on sharing possibilities of different selectivity curves for the ADF receivers.

Details of the selectivity curves used are given in Fig. 1.

3.5 Aeronautical radiobeacon transmitters operating on the indicated frequencies located near the coastline where a Navtex system is operational would cause interference to Navtex if the protection criteria described in Annex I were exceeded.

3.6 Navtex transmitters operating on the indicated frequencies located near an aeronautical radiobeacon coverage area could cause interference to ADF receivers in that area if the criteria of paragraphs 2.2 and 2.6 were exceeded.

4. Conclusions

4.1 Coexistence of the aeronautical radionavigation service and the maritime mobile service is possible when account is taken of protection requirements, e.r.p. and propagation loss for individual cases.

4.2 Before a frequency could be assigned to either an aeronautical radiobeacon or a coast station, a full assessment of the interference potential ~~from the maritime mobile service~~ would need to be made taking into account the following:

- the e.r.p. of the coast station, the highest possible ship station e.r.p. and the aeronautical radiobeacon e.r.p.;
- the protection requirements of each service;
- the assessed propagation loss between the stations of the two services, taking into account a mixed land and sea propagation path in the case of a ship station.

4.3 The effect of sky-wave propagation should be included in further studies. Also the effect of decreased propagation losses in the case when the receiving antenna is located well above the surface of the Earth, should be studied. These propagation mechanisms tend to increase protection distances and may be taken into consideration when and where applicable.

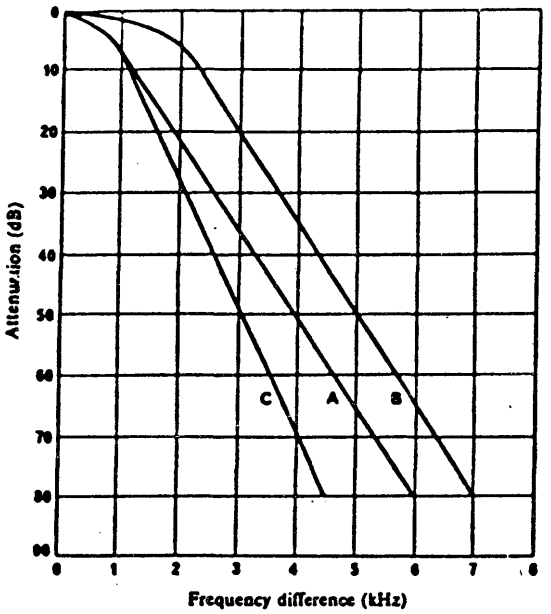

FIGURE 1 – *ADF receiver selectivity curves*

Curves A: Annex 10 Vol. I, Att. B to Part II, para 3
B: Annex 10 Vol. I, Att. B to Part II, para 2
C: arbitrary curve, better than A

Note. – In congested areas curve A is used when planning LF/MF beacons in the aeronautical radionavigation service. It is to be noted that there are ADF equipments currently being used, which have selectivity characteristics that are not as stringent as specified in Curve A.

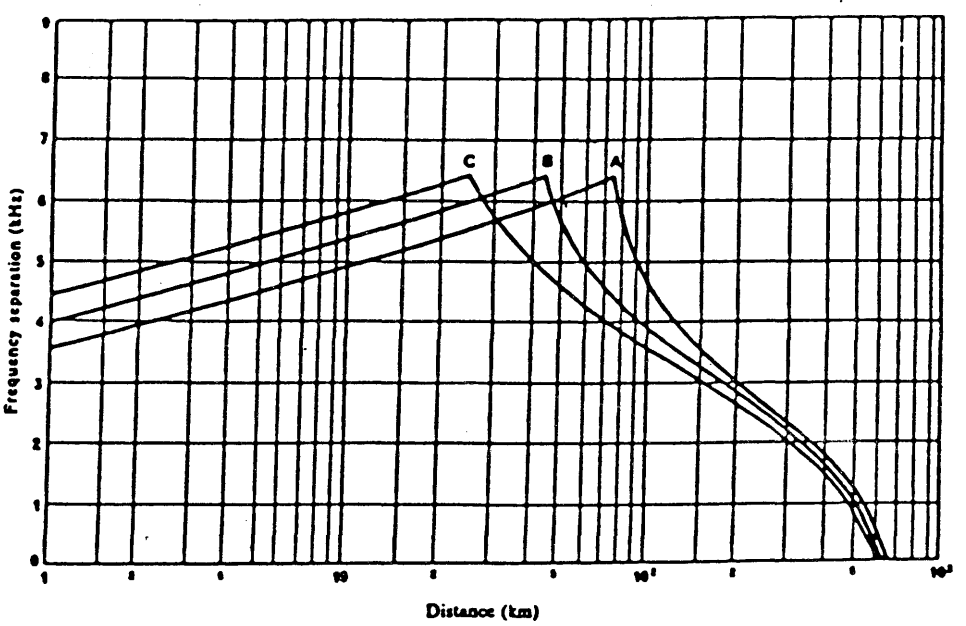

FIGURE 2 – *Minimum frequency separation between transmitters in the maritime mobile service and the aeronautical radionavigation service versus interference distance*

Curves A: – coast station: 500 W e.r.p.
– aeronautical beacon: range 75 km (40 NM)
B: – coast station: 500 W e.r.p.
– aeronautical beacon: range 45 km (25 NM)
C: – coast station: 500 W e.r.p.
– aeronautical beacon: range 25 km (15 NM)

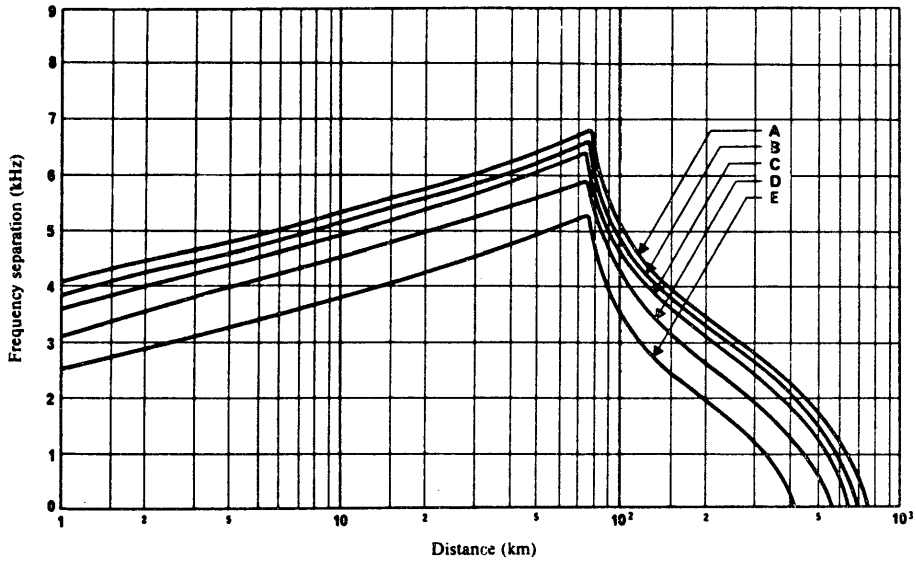

FIGURE 3 – *Minimum frequency separation between transmitters in the maritime mobile service and the aeronautical radionavigation service versus interference distance*

Curves **A**: – coast station: 2 kW e.r.p.
– aeronautical beacon: range 75 km
B: – coast station: 1 kW e.r.p.
– aeronautical beacon: range 75 km
C: – coast station: 0.5 kW e.r.p.
– aeronautical beacon: range 75 km
D: – coast station: 100 W e.r.p.
– aeronautical beacon: range 75 km
E: – coast station: 10 W e.r.p.
– aeronautical beacon: range 75 km

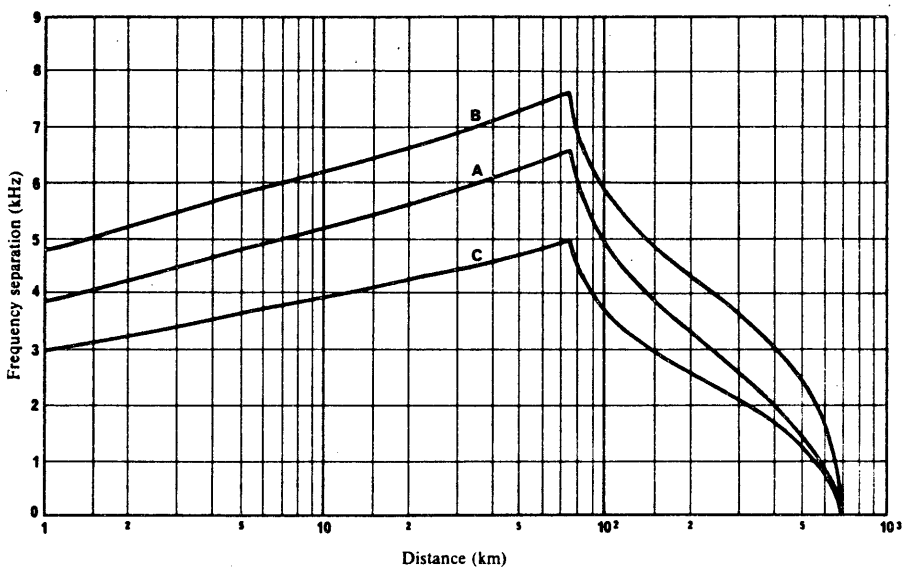

FIGURE 4 – *Minimum frequency separation between transmitters in the maritime mobile service and the aeronautical radionavigation service versus interference distance*

All curves: – coast station: 1 kW e.r.p.
– aeronautical beacon: range 75 km
Curves **A**: RF selectivity ADF Receiver (see curve A in Fig. 1)
B: RF selectivity ADF Receiver (see curve B in Fig. 1)
C: RF selectivity ADF Receiver (see curve C in Fig. 1)

Annex I

(to Report 910(MOD-I))

PROTECTION TO NAVTEX RECEIVERS FROM RADIOBEACON TRANSMISSIONS

I.1 Protection criteria

a) Navtex selectivity and sensitivity

The assumed Navtex receiver selectivity is as follows :

± 150 Hz	-3 dB
± 500 Hz	-40 dB
± 1 000 Hz	-60 dB

With consideration to minimum atmospheric noise levels the minimum field strength in which a Navtex receiving installation can be expected to work is 5μV/m (14 dB(μV/m)).

The required co-channel desired signal to undesired signal protection ratio is assumed to be 1 dB for the purpose of this example (this value needs further study).

b) Aeronautical radiobeacon transmitter characteristics are as described in paragraph 3.1.3; the modulation characteristics taken into account were :

modulation type : A2A

modulation tone : 1 020 Hz

modulation depth : 70%

c) Using the data described above, the off-frequency rejection characteristics for a Navtex receiver were calculated and are presented in Figure I-1.

I.2 Example of separation distances

As an example, separation distances required between an aeronautical radiobeacon and a Navtex coverage area can be calculated using the criteria of paragraph I-1, using ground-wave propagation curves of CCIR Recommendation 368-4. The following is a sample calculation of necessary protection criteria, assuming an inland radiobeacon and a Navtex facility near the coast. Actual protection required will depend upon such factors as radiobeacon transmitted power, earth conductivity and permittivity between the beacon and the Navtex service area, actual radiobeacon modulation, propagation mode (see paragraph 4.3) and the atmospheric noise values for the Navtex service area :

Beacon service range : 85 km

Beacon field strength at limit of service range : 70 μV/m (36.9 dB(μV/m))

Ground-wave propagation : wet earth (conductivity = 0.01 S/m, relative permittivity = 30)

Navtex sensitivity : 5 μV/m (minimum atmospheric noise) (14 dB(μV/m)).

I.3 Procedure

1) Determine the range of the aeronautical radiobeacon and plot it on the 500 kHz propagation curve of Recommendation 368-4 Figure 3 (85 km in this example).

2) Move along this curve 20 log 70 μV/m - 20 log 5 μV/m +1 dB, or 24 dB, down the curve. Read the distance using the horizontal axis. This is the minimum co-channel separation distance required between the protected Navtex receiver and the edge of the service area of the aeronautical radiobeacon (330 km in this example).

3) For adjacent channel separation calculations, move upwards along the 500 kHz curve using the off-frequency rejection attenuation value derived from Figure I-1 (for example, move 12 dB upwards for 1 kHz separation).

TABLE I-1

Frequency difference relative to 518 kHz kHz	Distance km
0	330
0.5	240
1	160
1.5	14
2	1

Note - This example is based upon the protection of the Navtex receiver in respect to its sensitivity. Other protection criteria, e.g. based upon the actual field strength within a specified service area, may also be applicable.

NAVTEX OFF FREQUENCY REJECTION CURVE

F1B wanted; 1020 Hz A2A unwanted

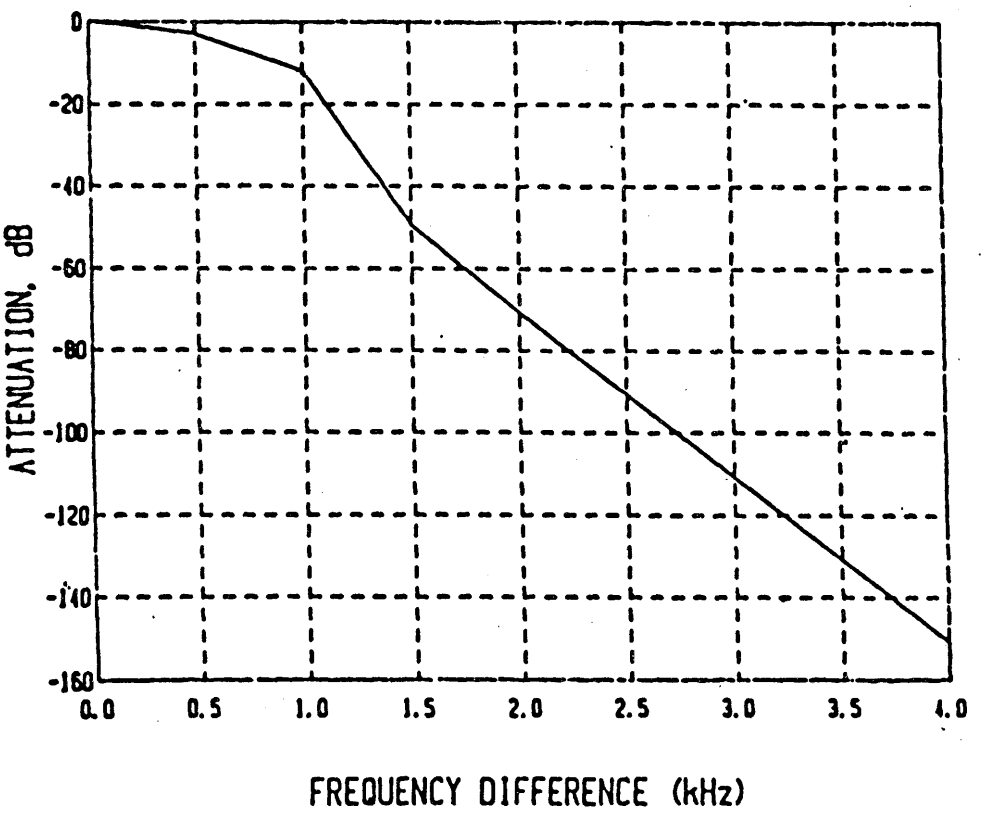

FIGURE I-1

Annex II

(to Report 910(MOD-I))

PROTECTION TO ADF RECEIVERS FROM NAVTEX TRANSMISSIONS

II.1 Example of separation distances

Separation distances required between a Navtex station operating at 518 kHz and the edge of an aeronautical radiobeacon service area can be calculated using the criteria of paragraphs 2.2 and 2.6 (Figure 1 curves A and B), using ground-wave propagation curves of CCIR Recommendation 368-4. The following is a sample calculation of necessary protection criteria. Actual protection required will depend upon such factors as Navtex transmitted power and earth conductivity and permittivity between the Navtex station and the radiobeacon service area :

Navtex e.r.p. : 60 W

Ground-wave propagation : wet ground (conductivity = 0.01 S/m, relative permittivity = 30)

ADF field strength at limit of coverage : 70 μV/m (36.9 dB(μV/m))

ADF signal to interference protection criteria : 15 dB

II.2 Calculation method

1. Determine 30 - 10 log (Navtex e.r.p. in Watts). In this example, the value is 12 dBw.

2. Add to this value 20 log 70 uV/m - 15 dB, or 22 dB(μV/m).

3. Plot this value using the 500 kHz curve of Rec 368-4 Figure 3 and read, using the horizontal axis, the resulting distance (440 km in this example). This is the minimum distance required between a Navtex transmitter and the edge of coverage of an aeronautical radiobeacon.

4. For adjacent channel separation, move upwards along the 500 kHz curve using the off-frequency rejection attenuation value derived from figure 1, curve A or B as appropriate (for example, move 6 dB upwards when using curve B for 2 kHz separation).

TABLE II-1

Frequency difference relative to 518 kHz kHz	Distance (Curve A) km	Distance (Curve B) km
0	440	440
1	360	420
2	180	360
3	75	190
4	20	75
5	3	20

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 4-E
30 August 1984
Original : English

PLENARY MEETING

Greece

PROPOSALS FOR THE WORK OF THE CONFERENCE

1. Introduction

A significant proportion of existing Morse radiotelegraphy transmitters on board ships can transmit only on a limited number of frequencies in the band 415 - 526.5 kHz. Continuation of operation of these transmitters for communication with many different coast stations can only be guaranteed by the preservation of the universal working frequencies of ship stations in the band 405 - 535 kHz, as foreseen in RR 4237. On the other hand premature replacement of these transmitters, before their lives expire, by others using frequency synthesizers, definitely cannot be justified in view of the projected phasing out of Morse radiotelegraphy during the next decade and the difficult financial situation of the world shipping industry.

2. Proposals

GRC/4/1 1. The frequencies 468 and 480 kHz (RR 4237) must be excluded from the pairing and planning process and be preserved as universal working frequencies of ship stations for Morse radiotelegraphy (together with the frequency 454 kHz), being available for transmission to any coast station operating in this band, regardless of the working frequency(-ies) of the coast station. This of course means that these two frequencies (468 and 480 kHz) should be omitted from the table of channelling arrangements in the proposed text of the respective appendix to the Radio Regulations, as it was done with the frequency 512 kHz in Appendix 1 of Resolution 704 of WARC-MOB-83.

GRC/4/2 2. If the RARC decides to keep the band 415 - 435 kHz for the aeronautical radionavigation service on a quasi-exclusive basis in Region 1, then a replacement frequency for 425 kHz (RR 4237) should be found, probably in the sub-band 450 - 461 kHz.

GRC/4/3 3. A coast station must have the right to transmit on its own assigned working frequency (paired) even when it communicates with a ship station transmitting on one of the universal frequencies for Morse radiotelegraphy (454, 468, 480 kHz and the replacement of 425 kHz).

3. Justification

1) The main reason for GRC/4/1 has been discussed in the introduction, that is the need of ship stations with a limited number of working frequencies to communicate with many coast stations, due to ship changing position and a limited coverage of coast stations in the MF band.

In addition to this, it should be remarked that adoption of proposal GRC/4/1 is necessary to ensure communication of ships coming into Region 1 from countries outside that region.

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2) It is anticipated that a considerable portion of Morse telegraphy traffic of ship stations in this band will continue being transmitted on each of the universal working frequencies of ship stations, after the implementation date of the channelling arrangements decided by the RARC. If eventually the frequency 425 kHz is no longer available in Region 1 for the maritime mobile service, then a replacement frequency will be necessary to relieve congestion in high traffic areas of Region 1, as proposed in GRC/4/2.

3) Adoption of proposal GRC/4/3 will eliminate the need to assign extra unpaired frequencies in the sub-band 450 - 461 kHz to coast stations, to be used only when the corresponding ship station transmits on one of the universal working frequencies. Otherwise problems will arise, because the narrow sub-band 450 - 461 kHz will be used for inter-ship communication and by coast stations as well as for special services of broadcast type, whereas frequency separation is necessary when a coast station transmits to a ship station transmitting on 454 kHz. In addition if proposal GRC/4/3 is adopted, a coast station is relieved from the obligation to operate two separate transmitters, one for ship stations transmitting on a paired frequency and one for ship stations transmitting on a universal working frequency, and consequently significant cost reduction is achieved, a factor that might be crucial for lower traffic coast stations, especially of less developed countries.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 5-E
30 August 1984
Original : English

PLENARY MEETING

German Democratic Republic

PROPOSALS FOR THE WORK OF THE CONFERENCE

The Administration of the German Democratic Republic submits the following proposals concerning items 2.1 and 2.6 of the agenda as resolved in Resolution 897 of the Administrative Council, 1983 :

DDR/5/1 1. Frequency assignment plans for the maritime mobile service in the band 415 - 435 kHz (item 2.1)

The band 415 - 435 kHz will further be used in the German Democratic Republic for the maritime mobile service as a permitted service.

Reason

According to the Radio Regulations, the maritime mobile service is a permitted service in the band 415 - 435 kHz.

DDR/5/2 2. Frequency assignment plans for the maritime mobile service in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz (item 2.1)

According to the Radio Regulations, the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 107 - 2 160 kHz are used in the German Democratic Republic by the fixed and land mobile services on a primary basis too.

Reason

According to the Radio Regulations, the German Democratic Republic is permitted to use the above mentioned bands by the fixed and land mobile services on a primary basis (see Radio Regulations 483).

DDR/5/3 3. Date of entry into force of the frequency assignment plans (item 2.6)

1) The new frequency assignment plans should come into force on 15 January 1997.

2) Transmitters in ship stations installed after 1 January 1992 should be able to meet the requirements of the plan.

Reason

A longer period will be necessary to convert all equipment of ship stations.

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Corrigendum 1 to
Addendum 1 to
Document 6-E
26 February 1985

Spain

Please, replace the figure 3 of the Addendum to Document 6, by the figure annexed.

Annex : 1

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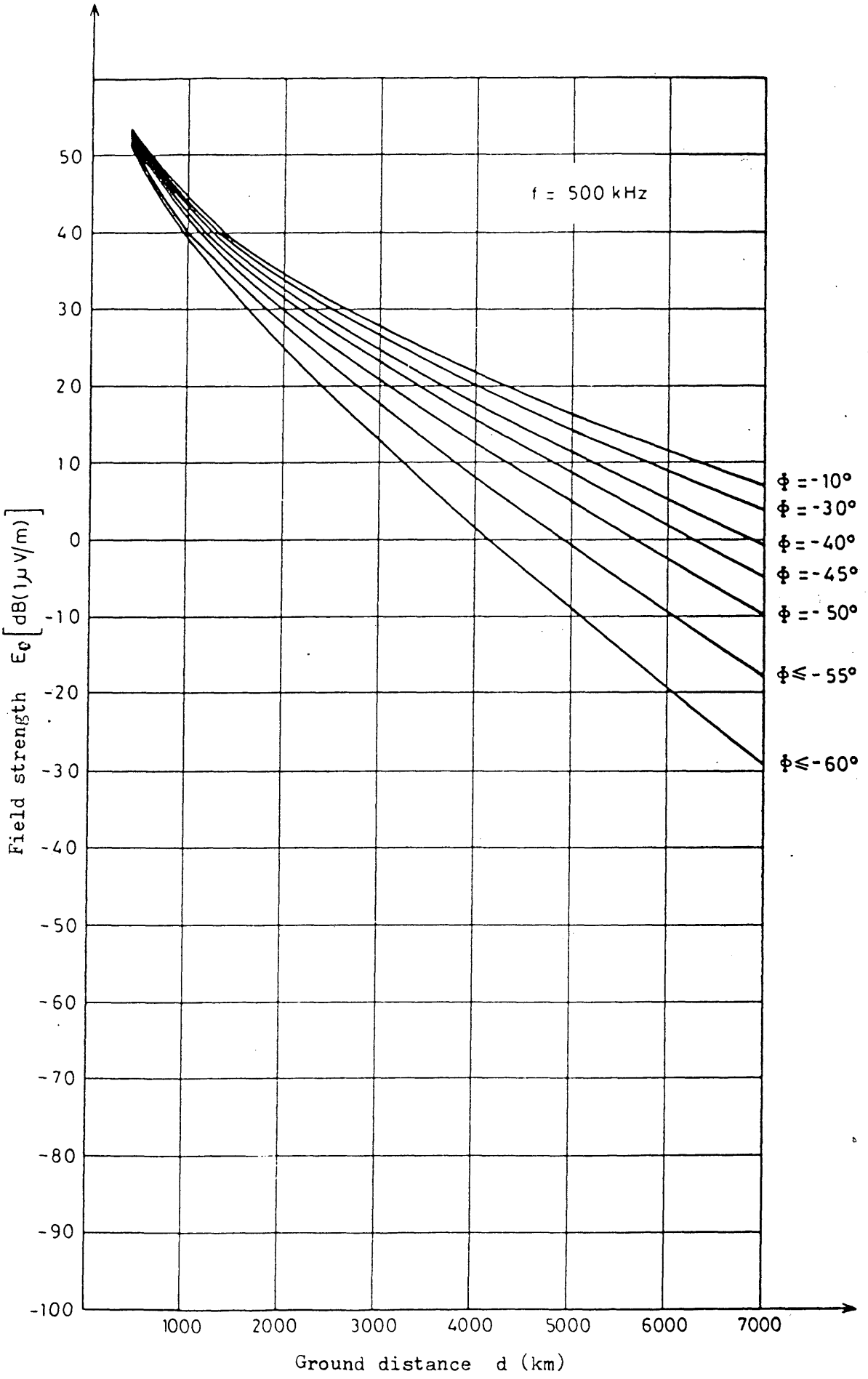

FIG. 3 - Southern hemisphere ($\Phi < 0°$)

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Addendum 1 to
Document 6-E
8 January 1985
Original: Spanish

PLENARY MEETING

Spain

ANNEX I.1

Calculation method for sky-wave propagation

1. Introduction

The sky-wave field strength prediction method described below is based on CCIR Recommendation 435-4 and on the method used at the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3) in 1975.

The method set out in this annex implies various simplifications and adaptations of the methods on which it is based, with a view to facilitating its use by this Conference in frequency planning for the maritime mobile service.

The method is somewhat less accurate for very high geomagnetic latitudes (above 60°) and for propagation paths of more than 4,000 km in the North-South direction. Neither this loss of accuracy nor the above-mentioned simplifications are very significant and their effect is to overestimate the field strength produced.

The prediction method enables the night-time sky-wave field strength to be evaluated. Field strength is far lower in the daytime (by about 25 or 60 dB depending on whether it is winter or summer).

2. Calculation of the median field strength

The sky-wave field strength is given by:

$$E = E_o + G_s + \Delta P \qquad \text{dB } (1\ \mu V/m) \qquad (1)$$

where:

E_o: median field strength at a given distance for a transmitter with an effective monopole radiated power[1] (e.m.r.p.) of 1 kW [dB (1 μV/m)].

G_s: additional gain for stations near the coast (dB).

ΔP: ratio between the transmitter e.m.r.p. and the reference e.m.r.p. of 1 kW (dB).

a) Median field strength for a transmitter with 1 kW e.m.r.p. (E)

The field strength for a transmitter with 1 kW e.m.r.p. is shown in Figures 2-7 as a function of distance (d) and geomagnetic latitude (Φ).

Figures 2 and 3 are for the frequency 500 kHz, Figures 4 and 5 for 1 600 kHz and Figures 6 and 7 for 1 800 kHz.

1) Effective radiated power referred to a short vertical antenna (e.m.r.p.).

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In these figures:

Φ: geomagnetic latitude (degrees),

d: median ground distance between transmitter and point of reception (km).

The geomagnetic latitude is given by:

$$\Phi = 0.5\ (\Phi_T + \Phi_R) \qquad (2)$$

where Φ_T and Φ_R are the geomagnetic latitudes at the transmitter and receiver respectively (see map of geomagnetic latitudes in Figure 1); they are taken as positive in the northern hemisphere and negative in the southern hemisphere.

b) Sea gain (G_s)

In order to determine G_s, three different cases are to be distinguished. In all three cases, it is assumed that the distance between the coast station and the sea is negligible.

First case: Sea in the direction of propagation, near both the transmitter and the receiver (see Figure 9a).

Then:

$$G_s = 2\ G_o \qquad \text{(dB)} \qquad (3)$$

where G_o is the gain due to the proximity of the sea to a terminal on the coast. Its value is obtained from Figure 8.

Second case: Sea in the direction of propagation near the transmitter and land near the receiver, or vice versa (see Figure 9b).

Then:

$$G_s = G_o \qquad \text{(dB)} \qquad (4)$$

Here too, G_o is obtained from Figure 8.

Third case: Land in the direction of propagation near both the transmitter and the receiver (see Figure 9c).

Then:

$$G_s = 0 \qquad \text{(dB)} \qquad (5)$$

3. Practical application of the calculation method

Let us assume that the requirement is to calculate the field strength produced by a coast station situated at point 1, for a coast station at point 2. The e.m.r.p. transmitted is P kW, the operating frequency is f_1 and the distance between points 1 and 2 is d_{12} km.

- The geomagnetic latitudes of ❶ and ❷ ($\Phi 1$ and $\Phi 2$) are read from Figure 1 and used to calculate Φ by means of formula (2).

- The figure corresponding to f_1 and to the value of Φ obtained from the above calculation is selected from Figures 2-7 and used to obtain E_o for distance d_{12} km.

- The relevant case is chosen from among those represented in Figure 9 and the corresponding G_s value is calculated using formulas (3)-(5) and Figure 8.

- ΔP is given by:

$$\Delta P = 10 \log P/1 \text{ kW} \qquad \text{dB (1 kW)}$$

- Lastly, the median field strength is obtained by means of formula (1).

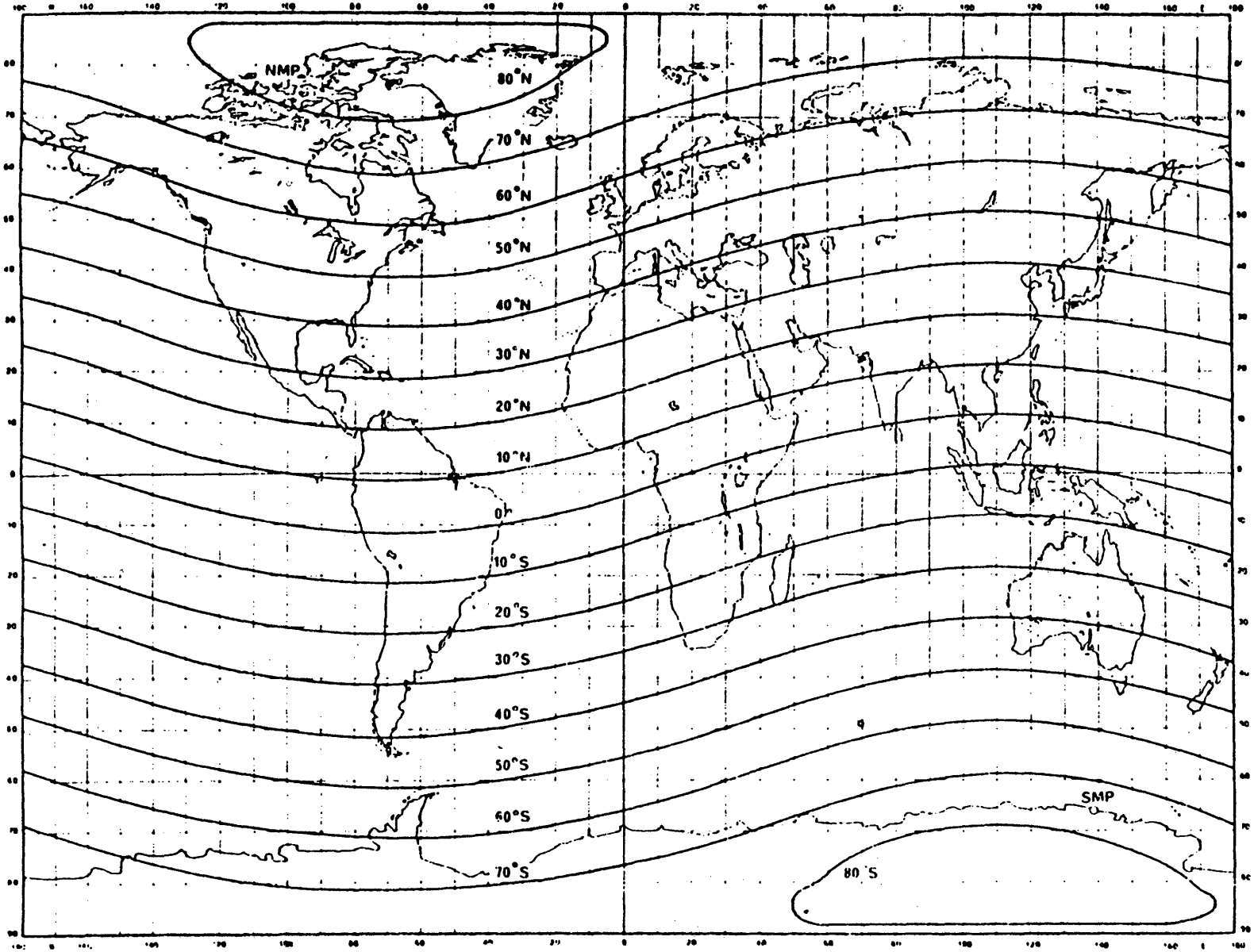

FIGURE 1

Map of geomagnetic latitudes

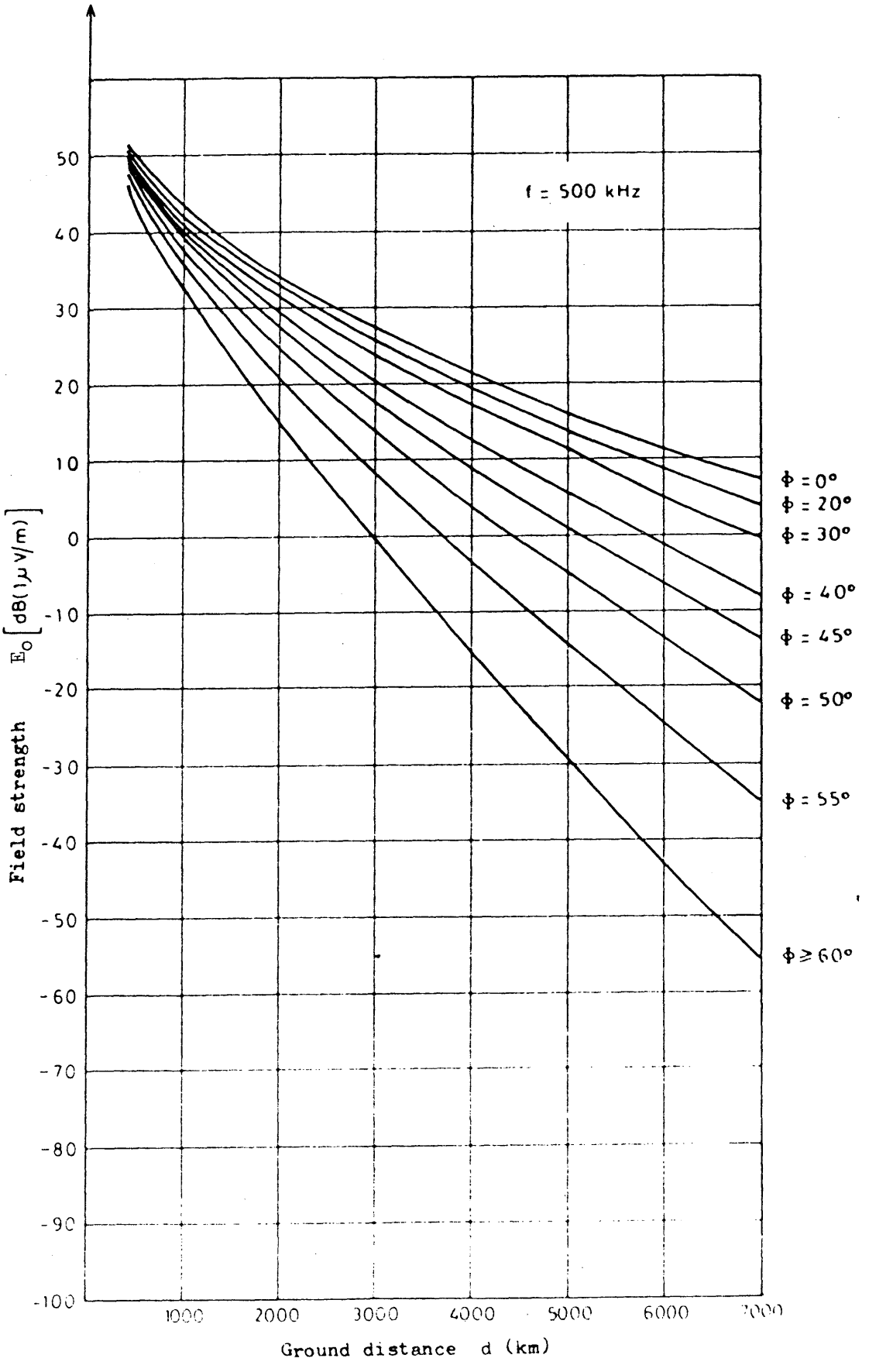

FIGURE 2

Northern hemisphere (Φ ≥ 0)

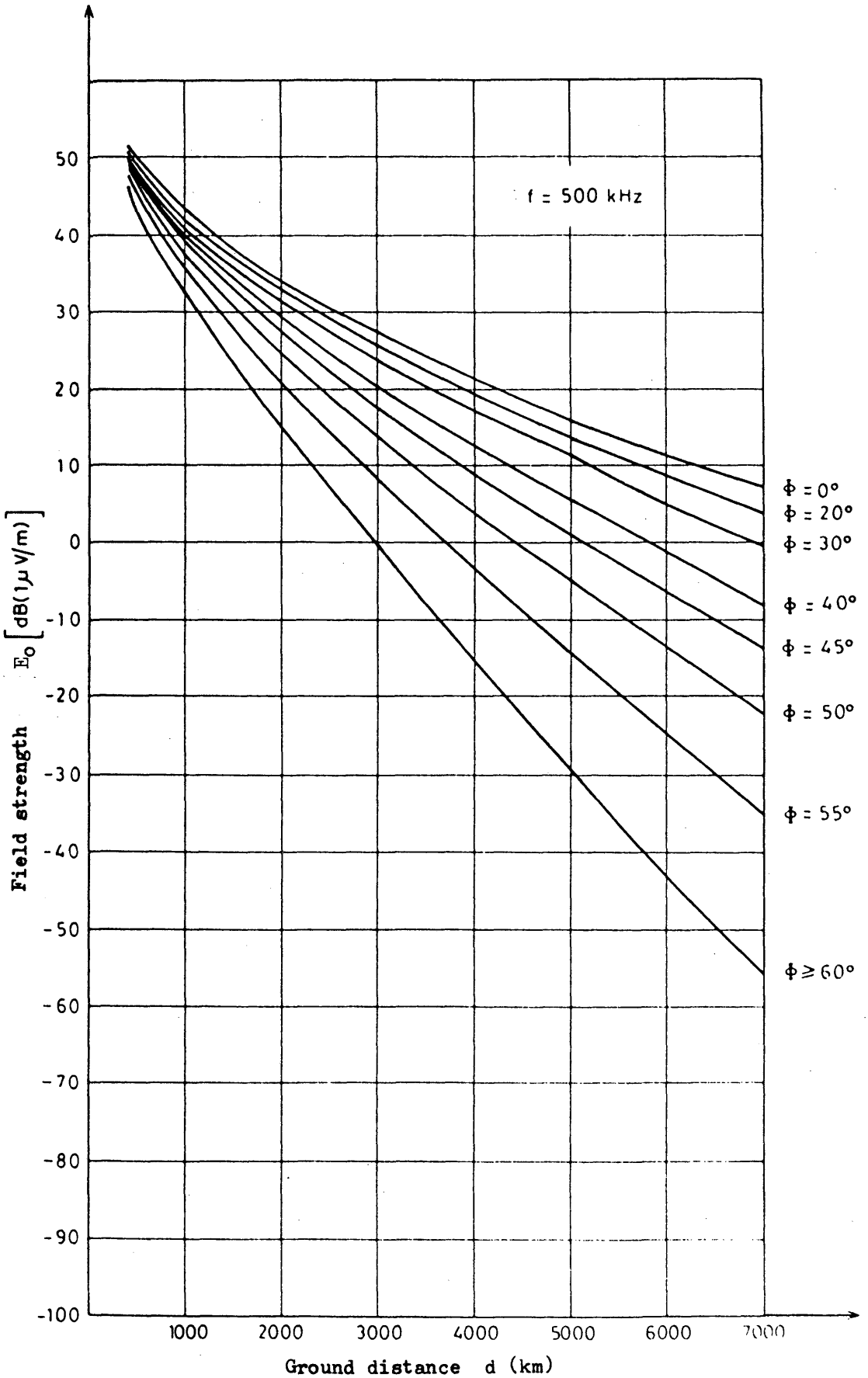

FIGURE 3

Southern hemisphere ($\Phi < 0^{o}$)

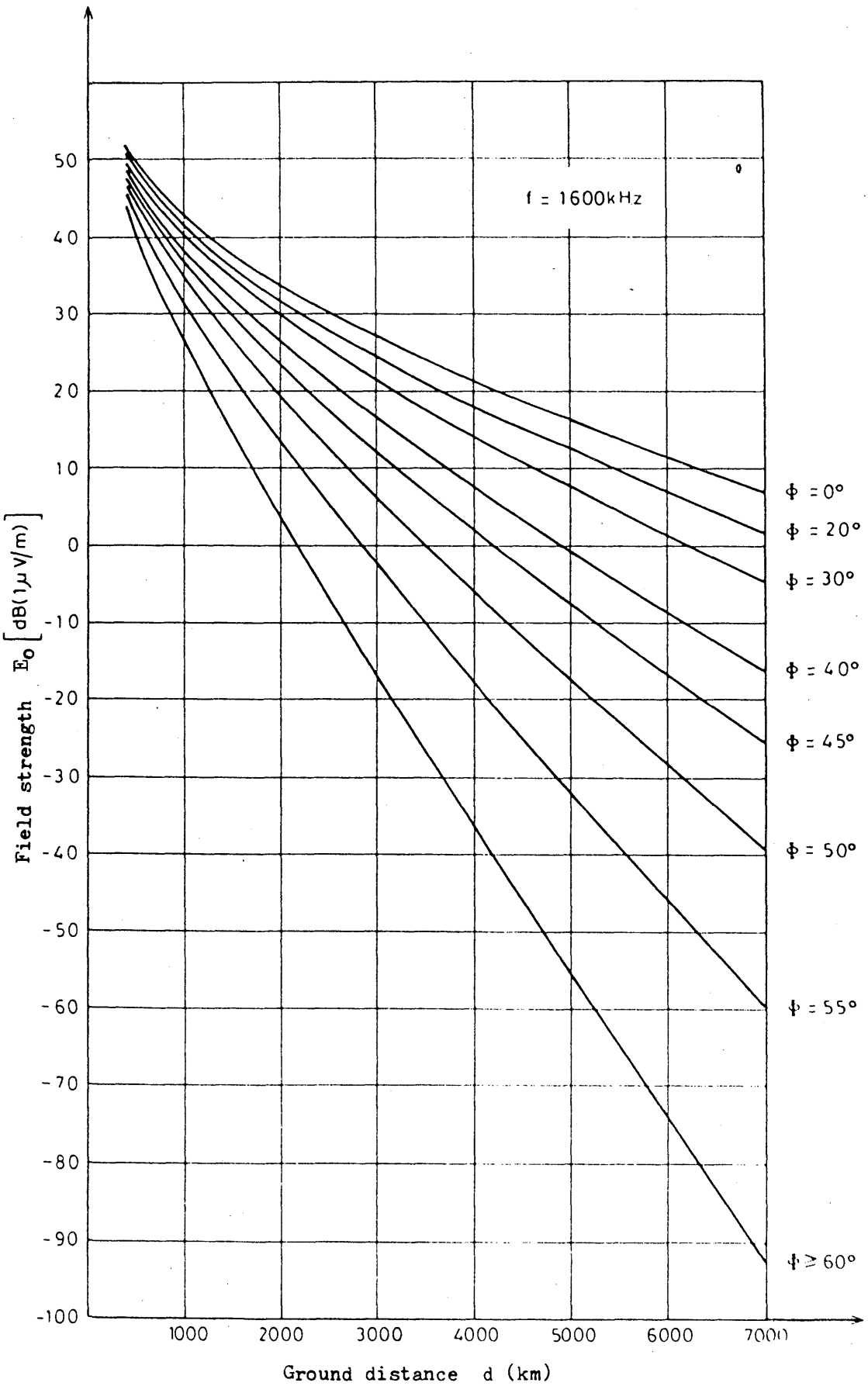

FIGURE 4

Northern hemisphere ($\Phi \geqslant 0^{o}$)

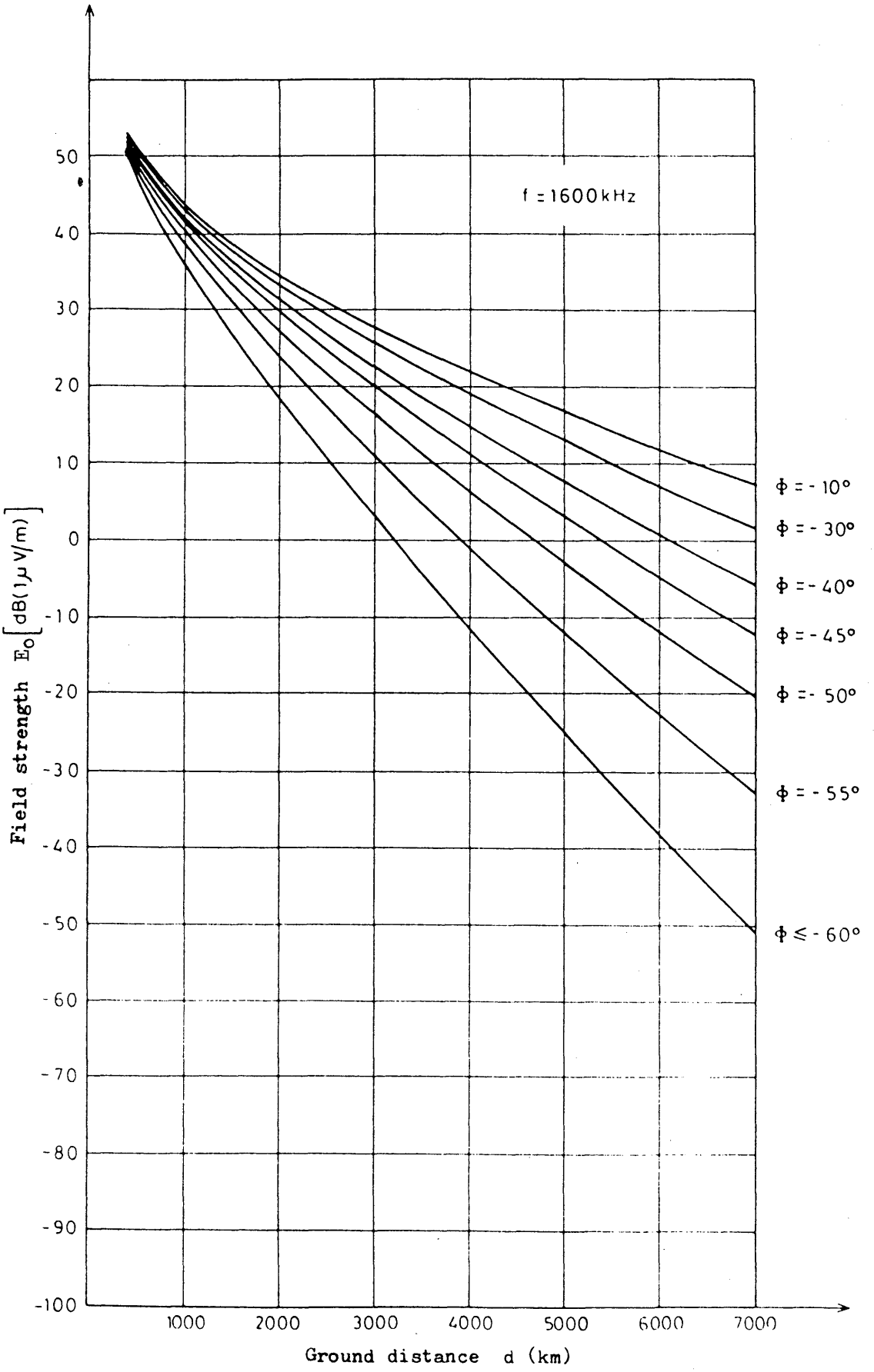

FIGURE 5

Southern hemisphere (Φ < 0)

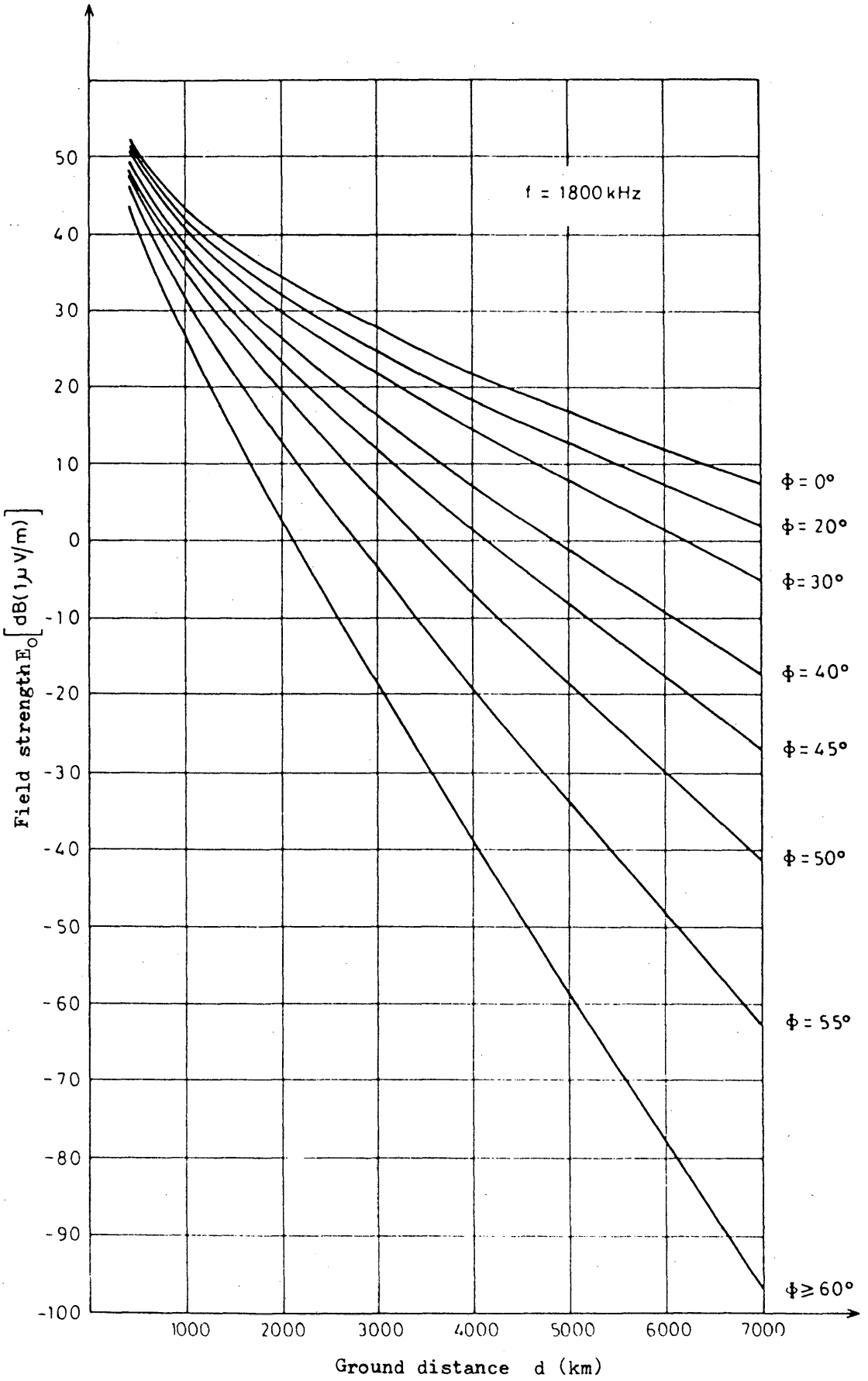

FIGURE 6

Northern hemisphere ($\Phi > 0^{o}$)

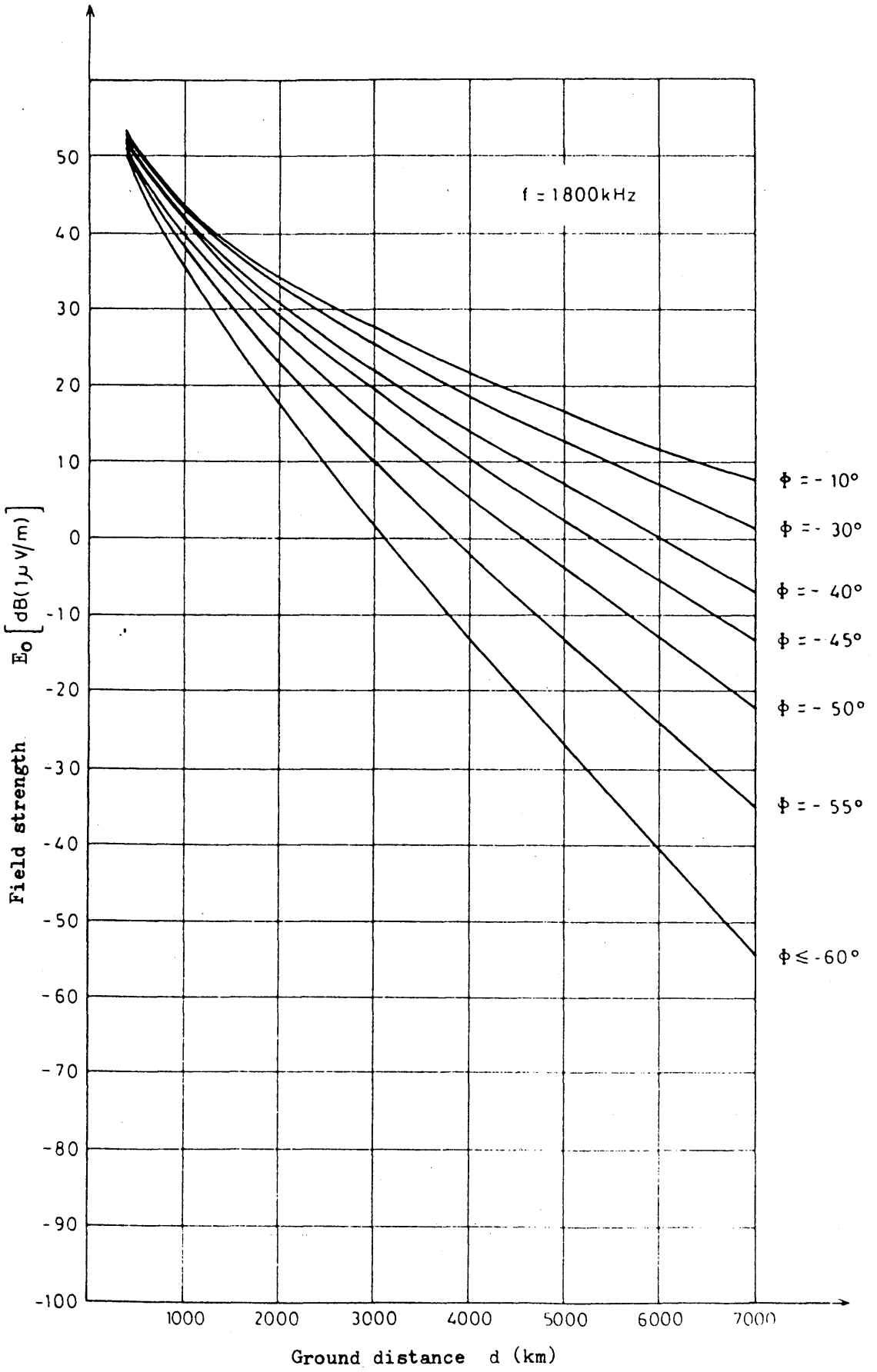

FIGURE 7

Southern hemisphere ($\Phi < 0^o$)

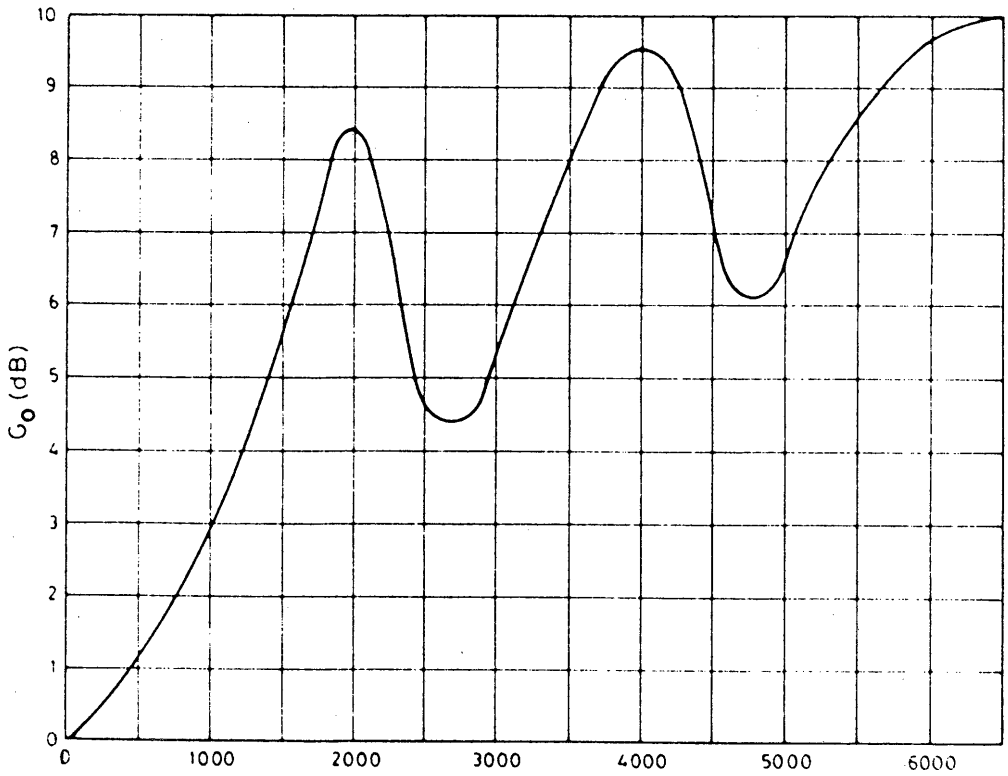

FIGURE 8

Ground distance d (km) measured between transmitter and receiver

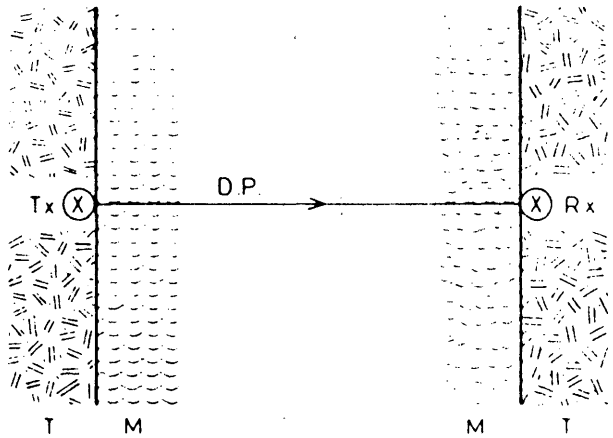

FIGURE 9a

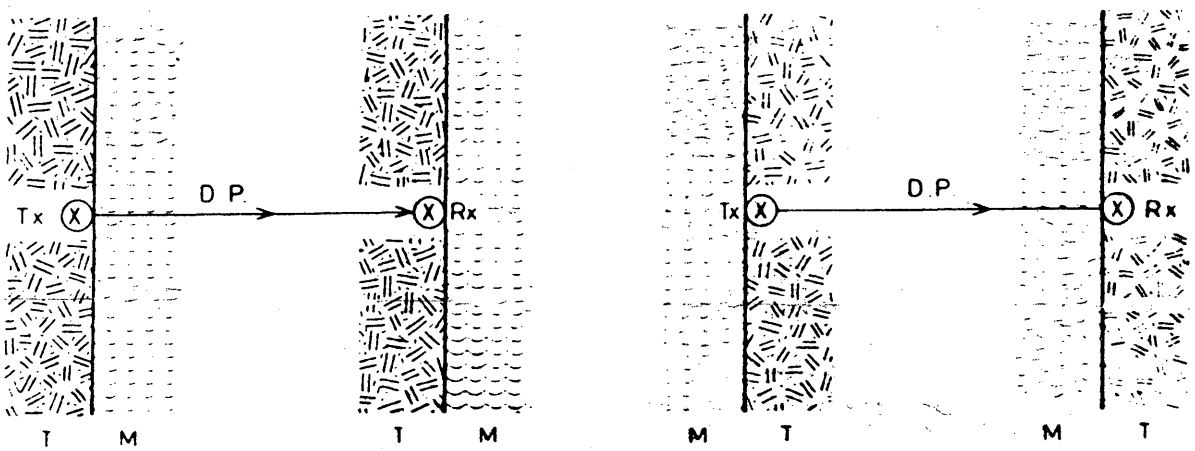

FIGURE 9b

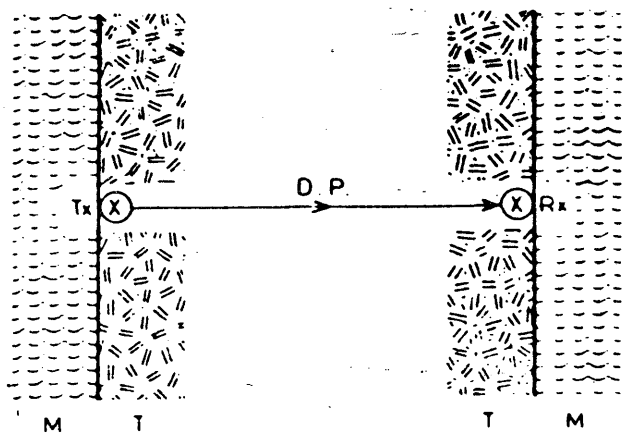

FIGURE 9c

Figures 9a, b and c Tx = transmitter M = sea D.P. = direction of propagation
Rx = receiver T = land

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Corrigendum 3 to
Document 6-E
25 February 1985
Original: Spanish

PLENARY MEETING

Spain

PROPOSALS FOR THE WORK OF THE CONFERENCE

As a result of two new requirements, Annex II.8 to Document 6, submitted by the Spanish Administration, should be modified. Pages 28 and 29 should now read as in the attached Annex where the details altered have been underlined.

Annex: 1

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ANNEX II.8

SPAIN

FREQUENCY REQUIREMENTS IN THE 2 MHz BAND

Coast station	Coordinates	Type of service	Number of frequencies	Service area (km)
ARRECIFE	13° 31' W 29° 08' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
BAGUR	3° 13' E 41° 58' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
BARCELONA	1° 55' E 41° 17' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
CABO DE GATA	2° 12' W 36° 43' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
CABO LA NAO	0° 11' E 38° 43' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
CABO PEÑAS	5° 51' W 43° 39' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
CADIZ R.N.	6° 12' W 36° 15' N	Telephony	1	400
		NBDP	1	400
		DSC		

ANNEX II.8 (Continued)

Coast station	Coordinates	Type of service	Number of frequencies	Service area (km)
CARTAGENA R.N.	0° 58' W 37° 36' N	Telephony	1	400
		NBDP	1	400
		DSC		
CHIPIONA	6° 25' W 36° 42' N	Telephony	3	370
		NBDP	1	550
		DSC	1	550
CORUÑA	8° 27' W 43° 22' N	Telephony	3	370
		NBDP	1	550
		DSC	1	550
FERROL R.N.	8° 16' W 43° 28' N	Telephony	1	400
		NBDP	1	400
		DSC		
FINISTERRE	9° 16' W 42° 54' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
LAS PALMAS	15° 36' W 27° 45' N	Telephony	3	370
		NBDP	1	550
		DSC	1	550
LAS PALMAS R.N.	15° 26' W 28° 09' N	Telephony	1	400
		NBDP	1	400
		DSC		

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Corrigendum 2 to
Document 6-E
29 January 1985
Original : Spanish

PLENARY MEETING

Spain

PROPOSALS FOR THE WORK OF THE CONFERENCE

- Proposal E/6/1 : Replace the expression "Minimum necessary field strength" by the expression "Minimum usable field strength".

- Proposal E/6/3 and section 4 : Replace the expression "Minimum usable field strength" by the expression "Usable field strength".

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Corrigendum 1 to
Document 6-E
8 January 1985
Original: Spanish

PLENARY MEETING

Spain

- Proposal E/6/19, (page 4): Replace the table by the following:

	Wanted signal		Interfering signal	Protection ratio
0.5 MHz	(NBDP/DSC (F1B/J2B)	———	NBDP/DSC (F1B/J2B)	-37 dB
	(NBDP/DSC (F1B/J2B)	———	Morse telegraphy (A1A)	-37 dB
	(Morse telegr. (A1A)	———	Morse telegraphy (A1)	-4 dB
	(Morse Telegr. (A1A)	———	NBDP/DSC (F1B/J2B)	-4 dB
2 MHz	Telephony (J3E)	———	Telephony (J3E)	-25 dB

- Proposal E/6/34: Does not affect the English text.

- Section 2.3.1.2: Does not affect the English text.

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 6-E
30 August 1984
Original : Spanish

PLENARY MEETING

Spain

PROPOSALS FOR THE WORK OF THE CONFERENCE

Introduction

This document contains Spain's proposals for the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in certain parts of the MF band in Region 1, set out in accordance with the Conference structure proposed by the Secretary-General of the ITU in Circular-letter No. 18.

Chapter I sets out proposals concerning the technical parameters and criteria to be used as a basis for planning the maritime mobile service. It is intended essentially for the Technical Committee of the Conference.

Chapter II puts forward proposals for the planning criteria to be used in drawing up the Plan for the maritime mobile service and is intended essentially for the Planning Committee of the Conference.

Note - In several places in this document, and solely for the sake of simplicity, the English abbreviations NBDP and DSC have been used to designate the terms "narrow-band direct printing" and "digital selective calling". The use of these abbreviations should be interpreted neither as a proposal nor as reflecting the Spanish Administration's position in this regard.

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CHAPTER I

TECHNICAL PARAMETERS AND CRITERIA

1. Definitions

The Spanish Administration proposes that the Conference adopt the following definitions for the preparation of the Plans and Agreements relating to the maritime mobile service.

E/6/1 Minimum necessary field strength

Minimum value of the field strength necessary to provide satisfactory reception, under specified conditions, in the presence of natural /or atmospheric/ and industrial noise, but not taking account of interference from other transmitters.

E/6/2 RF protection ratio (RR 164)

The minimum value of the wanted-to-unwanted signal ratio, usually expressed in decibels, at the receiver input, determined under specified conditions such that a specified reception quality of the wanted signal is achieved at the receiver output.

E/6/3 Minimum usable field strength

Minimum value of the field strength necessary to provide satisfactory reception, under specified conditions, in the presence of natural /or atmospheric/ noise, industrial noise and interference from other transmitters.

E/6/4 Coverage area of a coast station transmitter

The area within which the field strength produced by a coast station transmitter is equal to or greater than the minimum usable field strength.

E/6/5 Service area of a coast station transmitter

The area as put forward by the administration having authority over the coast station concerned within which minimum usable field strength criteria are met and the administration concerned has the right to demand protection from other transmitters for the service provided by its own transmitter.

E/6/6 Radio-frequency channel (RF channel)

Part of the radio spectrum intended to be used for an emission (unidirectional transmission of signals between two points) and which may be defined by two specified limits, or by its centre frequency and the associated bandwidth, or by any equivalent indication.

(References : Recommendation 73 of WARC 1979 and CCIR Recommendation 573-1.)

E/6/7 Pair of radio-frequency channels

Set of two associated radio-frequency channels, each of which is used for transmission in one direction. A pair of such channels constitutes a radio-frequency circuit for duplex or semi-duplex operation.

2. Field strength calculations

The Spanish Administration proposes that :

E/6/8 - to calculate the field strength due to ground-wave propagation, the Conference should use the calculation method and curves in Figures 1, 2, 3 and 4b of CCIR Recommendation 368-4;

E/6/9 - for mixed paths (in particular land-sea paths), the Millington method described in Annex II to that Recommendation should be used;

E/6/10 - to calculate the field strength due to sky-wave propagation, the method described in Annex I.1 to this chapter* may be used.

3. Channel spacing

E/6/11 The Spanish Administration agrees with the adjacent channel spacing laid down in Appendices 1 and 2 to Resolution 704 of WARC-MOB-83. It further considers that a spacing of 0.5 kHz between adjacent channels should also be adopted for A1A morse telegraphy.

4. Minimum usable field strength

The Spanish Administration proposes that the Conference should adopt the following minimum usable field strength values for the maritime mobile service :

Band 435 - 526.5 kHz

E/6/12 Morse telegraphy : 30 dB (1 μV/m) for areas north of 30° N
: 45 dB (1 μV/m) for areas south of 30° N

E/6/13 Direct-printing telegraphy : 30 dB (1 μV/m) for areas north of 30° N
: 45 dB (1 μV/m) for areas south of 30° N

E/6/14 Digital selective calling : 30 dB (1 μV/m) for areas north of 30° N
: 45 dB (1 μV/m) for areas south of 30° N

Band 1 606 - 2 160 kHz

E/6/15 Direct-printing telegraphy : 20 dB (1 μV/m) for areas north of 30° N
: 35 dB (1 μV/m) for areas south of 30° N

E/6/16 Digital selective calling : 20 dB (1 μV/m) for areas north of 30° N
: 35 dB (1 μV/m) for areas south of 30° N

E/6/17 Telephony : 34 dB (1 μV/m) for areas north of 30° N
: 49 dB (1 μV/m) for areas south of 30° N.

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* Annex I.1 referred to in proposal E/6/10 will be submitted at a later stage as an addendum to this document.

5. RF protection ratio

The Spanish Administration proposes that the following protection ratio values be adopted :

E/6/18 5.1 Co-channel protection ratio

The protection ratios given below are valid for a stable wanted signal (ground-wave propagation) and a stable (ground-wave propagation) or variable (sky-wave propagation) interfering signal. In the latter case, the protection ratio must be attained for 50% or more of the time.

Ratio = 8 dB for morse telegraphy in the band 0.5 MHz, direct-printing telegraphy in the bands 0.5 MHz and 2 MHz, and digital selective calling in the bands 0.5 MHz and 2 MHz.

Ratio = 20 dB for telephony in the 2 MHz band.

E/6/19 5.2 Adjacent channel protection ratio

For a stable wanted signal and a stable or variable (present 50% or less of the time) interfering signal, the adjacent channel protection ratios should be as follows :

	Wanted signal		Interfering signal	Protection ratio
0.5 MHz	(NBDP/DSC (F1B/J2B)	———	NBDP/DSC (F1B/J2B)	45 dB
	(NBDP/DSC (F1B/J2B)	———	Morse telegraphy (A1A)	45 dB
	(Morse telegr. (A1A)	———	Morse telegraphy (A1)	12 dB
	(Morse Telegr. (A1A)	———	NBDP/DSC (F1B/J2B)	12 dB
2 MHz	(Telephony (J3E)	———	Telephony (J3E)	45 dB
	(Telephony (J3E)	———	NBDP/DSC (F1B/J2B)	41 dB
	(NBDP/DSC (F1B/J2B)	———	Telephony (F3E)	39 dB

6. Receiver selectivity

The Spanish Administration proposes that the following receiver selectivity curves be used for adjacent channel signals in the maritime mobile service, for both coast and ship stations :

E/6/20 6.1 Morse telegraphy receivers (0.5 MHz band)

See Figure 1 of Annex I.2 of this chapter.

E/6/21 6.2 Narrow-band direct-printing telegraphy and digital selective calling receivers (0.5 MHz and 2 MHz bands)

See Figure 2 of Annex I.2 to this chapter.

E/6/22 6.3 Telephone receivers (2 MHz band)

See Figure 3 of Annex I.2 to this chapter.

ANNEX I.1

CALCULATION METHOD FOR SKY-WAVE PROPAGATION

/ Will be issued later as an addendum to this document. /

ANNEX I.2

SELECTIVITY CURVES

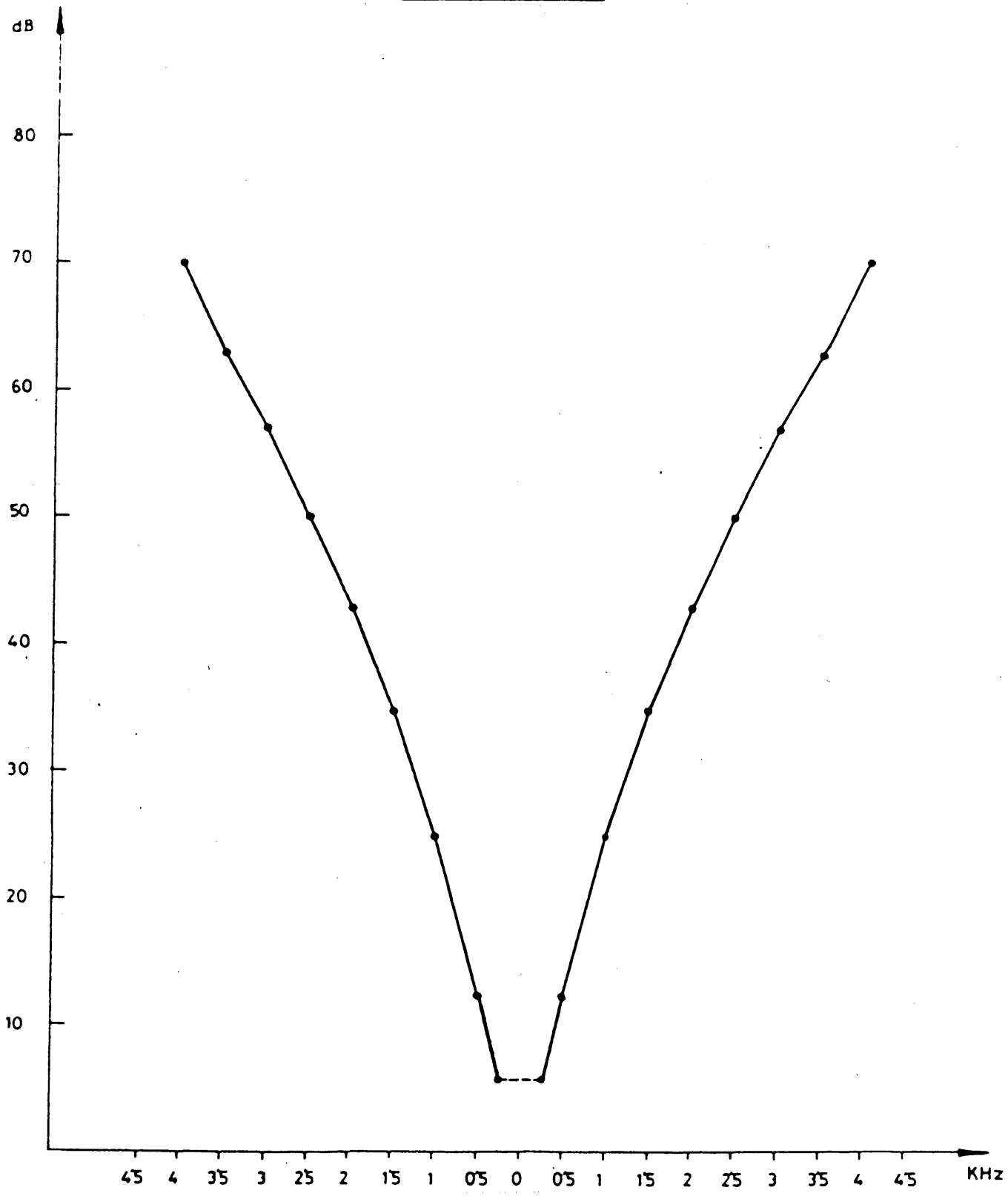

FIGURE 1

Morse telegraph receiver selectivity for an adjacent channel signal

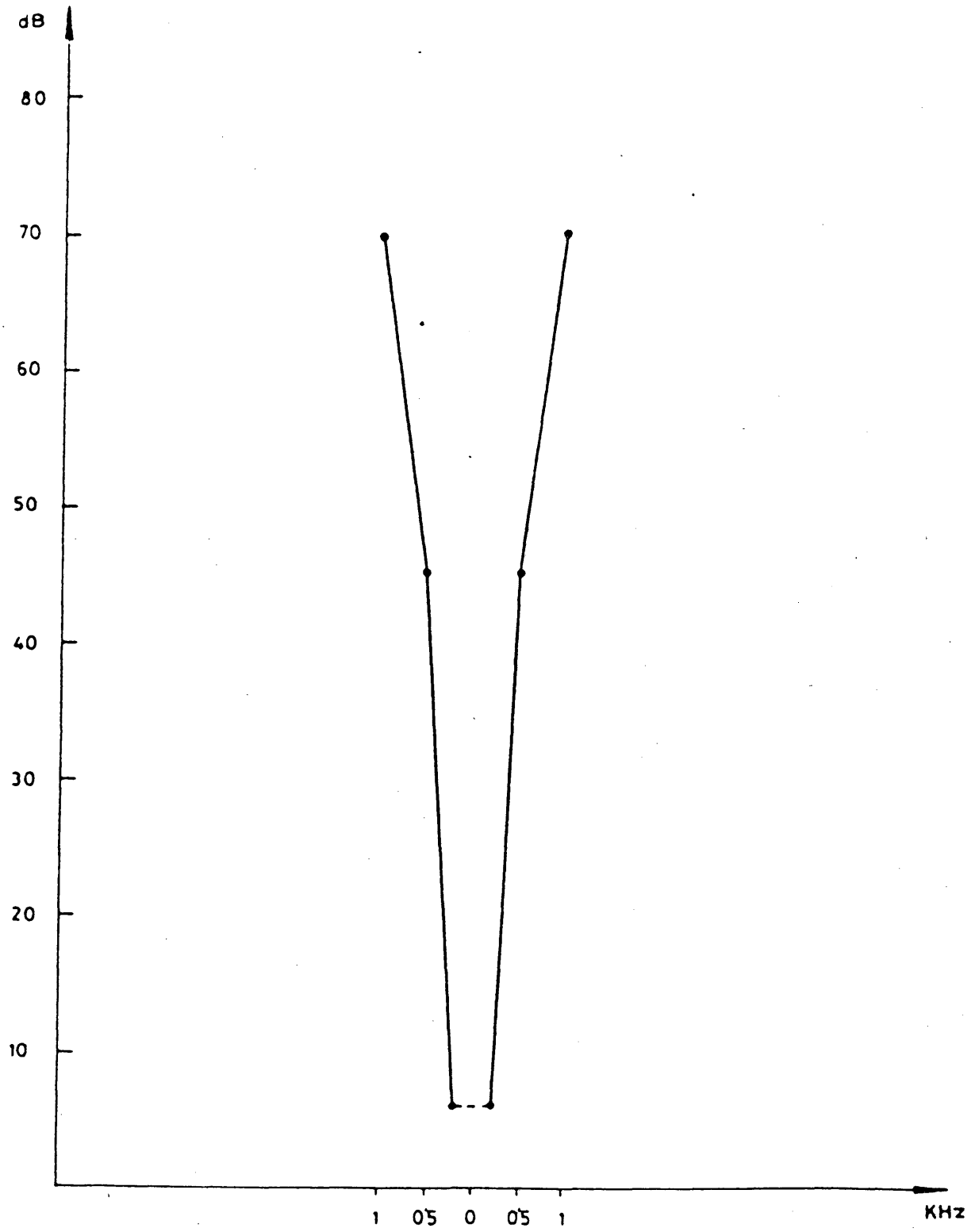

FIGURE 2

NBDP/DSC receiver selectivity for an adjacent channel signal

150 Hz - 3 dB
500 Hz - 45 dB
1 000 Hz - 70 dB

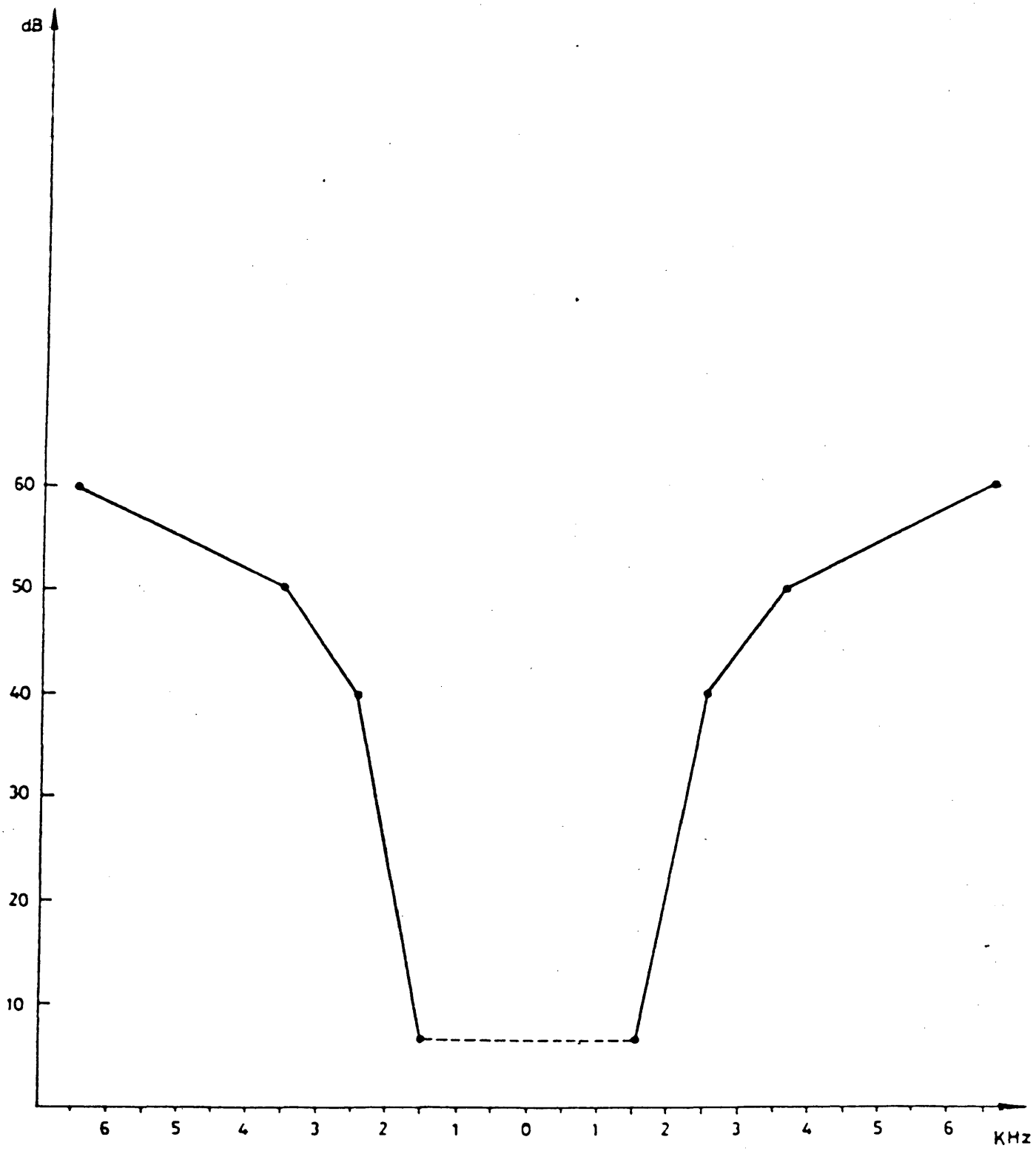

FIGURE 3

Radiotelephone receiver selectivity for an adjacent channel signal

2.5 kHz - 40 dB
3.5 kHz - 50 dB
6.5 kHz - 60 dB

CHAPTER II

PLANNING

1. Primary and permitted services

These two categories of service are defined in No. 419 of the Radio Regulations. The definition is open to a number of different interpretations and, for the sake of clarity, Spain proposes that the Conference accept the following interpretation of RR 419 :

E/6/23 To clarify the scope and content of RR 419, it is necessary to distinguish between three phases or periods of time, namely, "pre-planning", "planning" and "post-planning".

a) For the "pre-planning" phase, we consider that the wording of RR 419 is perfectly clear; in a frequency band shared between primary and permitted services, both categories have exactly the same rights and may be considered as primary for all purposes.

b) For the "planning" period or phase, a distinction should be drawn between the actual establishment of the Plan (the three weeks of the Conference) and the date of its entry into force or the bringing into service of the planned stations.

When the Plan for the primary service is being drawn up, primary service stations in a band shared with permitted services should not take into account existing frequency assignments to stations of the permitted services in that band. In other words, no constraints should be imposed on the primary services by permitted service assignments while the Plan is being established.

At the date on which the Plan enters into force or the planned stations are brought into service, all the primary service assignments in the Plan must be able to start operating without difficulty and in conditions of equality. Accordingly, any assignment in a permitted service which is found to be incompatible with an assignment in the primary service Plan would have to be relinquished by the operating administration.

In order not to give the primary services absolute priority vis-à-vis the permitted services, it is proposed that during the establishment of the Plan the Conference should draw up a transfer procedure in a Resolution of the kind set out in Annex II.1 to this document (draft Resolution [E-A] (E/6/62)).

c) For the "post-planning" phase, we consider that the text of RR 419 is sufficiently clear and that the two types of service, primary and permitted, enjoy the same rights. This means that once the Plan for the primary service in a given frequency band has been established, any administration wishing to make an assignment to a permitted service station in that band must scrupulously respect the contents of the Plan and coordinate the assignment with all affected

administrations. Conversely, once the Plan for the primary service has been established in a given frequency band, any administration wishing to modify the Plan must coordinate the modification with the administrations which might be affected because they are operating either primary service assignments in the Plan or permitted service assignments which have been declared compatible with the Plan and, therefore, recorded in the International Frequency List.

2. General planning principles

2.1 Band 415 - 435 kHz

The Spanish Administration suggests that the Conference should adopt the following planning criteria for this band :

E/6/24 1. A frequency assignment plan should be drawn up for radiobeacons in the aeronautical radionavigation service in this frequency band, without taking account of existing assignments in the maritime or aeronautical radionavigation services in the band.

E/6/25 2. No frequency assignment plan need be drawn up in the band 415 - 435 kHz for the maritime mobile service. The frequency requirements of maritime mobile service stations currently operating in this band should be accommodated in the band 435 - 526.5 kHz.

E/6/26 3. The use of 425 kHz as an international ship station frequency (RR 4237) should be discontinued in Region 1 before the Plan to be drawn up by the Conference for the aeronautical radionavigation service enters into force.

2.2 Replacement of frequency 425 kHz

E/6/27 The Spanish Administration considers that there is no need to replace 425 kHz (one of the international ship station frequencies listed in RR 4237) by another frequency, for the following reasons :

a) morse radiotelegraphy traffic in the MF bands has been phased out or is on the decline in almost all the countries of Region 1;

b) it is expected that with the introduction of the Future Global Maritime Distress and Safety System (FGMDSS) and the disappearance of morse radiotelegraphy for distress purposes, this type of traffic will be rapidly phased out;

c) a sizeable share of morse radiotelegraphy traffic can be handled by means of the paired frequencies in the band 435 - 526.5 kHz.

A Recommendation should be adopted requesting the World Administrative Radio Conference for Mobile Services scheduled for 1987 to delete the frequency 425 kHz from RR 4237.

If the Conference considers that 425 kHz does need to be replaced by another international frequency for morse telegraphy, the new frequency should be selected from among those listed in Annex II.3 to this document.

2.3 Band 435 - 526.5 kHz

2.3.1 Maritime mobile service

2.3.1.1 The Spanish Administration suggests the following planning principles for this service in this band :

E/6/28 1. A frequency assignment plan should be drawn up for the maritime mobile service in this band for morse telegraphy, narrow-band direct-printing telegraphy and digital selective calling.

E/6/29 2. The Conference should adopt the frequency channelling and pairing plan in Annex II.2*to this document for duplex or semi-duplex communications (ship-to-shore and shore-to-ship). *E/6/63

E/6/30 3. The Conference should adopt the channelling plan in Annex II.3*to this document for simplex communications (shore-to-ship, ship-to-ship, and ship-to-shore) in this band. *E/6/64

E/6/31 4. The Conference should draw up a frequency assignment plan for the coast stations of Region 1 countries for the three types of service (morse telegraphy, narrow-band direct-printing telegraphy and digital selective calling), using 55 of the 57 pairs of RF channels in Annex II.2; in other words, all the channel pairs except Nos. 10 and 43 should be used.

E/6/32 5. Channel pairs 10 (440 and 480 kHz) and 43 (519 and 468 kHz) should not be assigned to any specific coast station. As 468 and 480 kHz are - and are to remain - international ship station frequencies (RR 4237), the frequencies with which they are paired (519 and 440 kHz) should be made available, as international frequencies, to all coast stations in Region 1.

The Spanish Administration also holds the view that international ship station frequencies should be allowed to operate in conjunction with any of the working frequencies assigned to a coast station (cross-band operation).

E/6/33 6. The Conference should designate one pair of RF channels, from among the 55 referred to in section 4 above, as an international pair for digital selective calling.

E/6/34 7. The 22 unpaired channels listed in Annex II.3 should be distributed as follows :

a) 8 channels for ship-to-ship communications (morse telegraphy and narrow-band direct-printing telegraphy);

b) 7 channels for unidirectional shore-to-ship communications (morse telegraphy and narrow-band direct-printing telegraphy);

c) 7 channels for ship-to-shore and shore-to-ship simplex communications (morse telegraphy and narrow-band direct-printing telegraphy).

E/6/35 8. The assignment plan for the maritime mobile service should be based on a channel spacing of 0.5 kHz for the three types of service to be planned (morse telegraphy, direct-printing telegraphy and digital selective calling). However, to take account of the fact that some ship stations currently in operation have a frequency tolerance which may not be suited to this channelling plan, the morse telegraphy assignments to neighbouring coast stations should not be in consecutive channels.

2.3.1.2 In addition to the above principles, the Spanish Administration proposes the adoption of the following criteria to meet the requirements of all the administrations concerned in Region 1 :

E/6/36 1. All the coast stations operating in this frequency band for which the administration has submitted requests for frequency assignments shall have at least one assignment recorded in the Plan for each of the three planned services, i.e. morse telegraphy, narrow-band direct-printing telegraphy and digital selective calling.

E/6/37 2. Coast station frequency requirements for duplex and semi-duplex communications on the one hand and simplex and/or unidirectional communications on the other shall be handled separately. The former are to be accommodated using 54 of the RF channel pairs listed in Annex II.2 and the latter using 7 + 7 of the channels in Annex II.3.

E/6/38 3. All frequency assignment requests for digital selective calling (national calls) shall be accommodated in three pairs of RF channels selected from among the 54 pairs referred to above.

E/6/39 4. All coast stations should enjoy full protection from the transmissions of other coast stations (having regard to both ground-wave and sky-wave propagation) in at least one direct-pringing telegraphy and morse telegraphy assignment, if so requested by the operating administration. If these minimum requirements cannot be met for all coast stations, the Conference should consider the possibility of reducing (to some 300-400 km) the service area radius of either all the coast stations or at least those in the most severely affected areas.

E/6/40 5. Any additional coast station requirements should be met on the basis of the following criteria :

a) Assignment of a second frequency to coast stations if justified by actual or planned traffic volume in the service concerned. The administration must provide objective traffic statistics in support of the requirement. The second assignment shall enjoy :

- full protection from ground-wave and sky-wave signals from other coast stations;

- protection from ground-wave signals from other coast stations, where protection from sky-wave propagation cannot be provided.

If protection cannot be provided even against ground-wave propagation, consideration should be given to reducing the service area of either all the stations involved or at least those in the most severely affected areas.

b) Assignment of a third frequency to coast stations if justified by actual or planned traffic volume in the service concerned. Here again, objective statistics must be provided. The third assignment should, at the least, enjoy protection from ground-wave signals from other coast stations. If all requests for a third assignment cannot be satisfied, consideration should be given to reducing the service area of the stations involved.

2.3.2 Interchanging RF channels in the band 435 - 526.5 kHz

To facilitate the use of frequencies in this band as far as possible, the Spanish Administration proposes that a provision along the following lines should be included in the Plan :

E/6/41 "If a coast station to which a frequency has been assigned in the Plan for a given type of service (morse telegraphy or direct-printing telegraphy) wishes at a given moment, in order to meet traffic requirements, to use that frequency for the other type of service, it may do so provided the administration concerned ensures that there is no increase in the interference caused to the installations of other administrations and does not claim more protection from such installations than if the RF channel were used for the purpose foreseen in the Plan."

E/6/42 2.3.3 Aeronautical radionavigation service

The Spanish Administration suggests that the Plan drawn up for aeronautical radionavigation in the sub-band 505 - 526.5 kHz should be fully consistent with the Plan for the maritime mobile service to be drawn up first.

2.4 Band 1 606 - 1 625 kHz and the associated band 2 141.5 - 2 160 kHz

2.4.1 The Spanish Administration proposes the following planning principles for these bands in the maritime mobile service :

E/6/43 1. The bands should be used, in accordance with Resolution 704 of WARC-MOB-83, for digital selective calling and/or narrow-band direct-printing telegraphy.

E/6/44 2. Priority should be given to meeting digital selective calling requirements in this band, since direct-printing telegraphy requirements in the 2 MHz band may also be accommodated using the 420 RF channel pairs listed in Appendix 3 to Resolution 704 of WARC-MOB-83.

E/6/45 3. The Conference should adopt the frequency channelling and pairing Plan in Annex II.4*to this document. *E/6/65

E/6/46 4. The Conference should assign a pair of channels, from among the 36 listed in Annex II.4, as an international frequency pair for digital selective calling.

E/6/47 5. All the coast stations planned for operation in this band for which administrations have requested a frequency assignment should be entered in the Plan for national calls using digital selective calling. These requirements should all be met with 8 frequency pairs.

E/6/48 6. The narrow-band direct-printing telegraphy requirements of all coast stations for which administrations have requested assignments should be met using the 27 remaining channel pairs (36 - 8 - 1 = 27).

2.4.2 The following criteria should be taken into account in meeting requests for narrow-band direct-printing telegraphy assignments in this band :

E/6/49 a) All coast stations planned to provide this service in the band should have an assignment entered in the Plan.

E/6/50 b) This assignment should enjoy full protection from both ground-wave and sky-wave transmissions from other coast stations.

E/6/51 c) If one channel pair cannot be assigned to each coast station with the required protection, some of the requests for assignments will have to be rejected, having regard to the following principles which are set out in order of priority :

c.1 - limiting the requirements to be met in this frequency band to those involving PUBLIC CORRESPONDENCE;

c.2 - limiting the service area of all coast stations, or at least those in the most severely affected areas;

c.3 - transfer of some direct-printing telegraphy requirements for public correspondence from these bands to those listed in Appendix 3 to Resolution 704 of WARC-MOB-83.

2.5 Frequency bands 1 635 - 1 800 kHz and 2 045 - 2 141.5 kHz

2.5.1 The Spanish Administration suggests that the following planning principles be adopted for the above frequency bands :

E/6/52 1. In accordance with Resolution 704 of WARC-MOB-83, these frequency bands should be used by the maritime mobile service for telephony (J3E emissions).

E/6/53 2. As there is an imbalance between the number of telephone channels available, respectively, in the bands 1 635 - 1 800 kHz (55 RF channels) and 2 045 - 2 141.5 kHz (32 RF channels), the Spanish Administration proposes that 23 channels should be taken from the bands in Appendix 3 to Resolution 704 of WARC-MOB-83 in order to form 55 channel pairs.

However, since this Conference has no authority to plan the bands in Appendix 3 to the above Resolution, the Spanish Administration proposes that the Recommendation in Annex II.6*to this document be adopted, thus enabling 23 channels in the band 1 975 - 2 041 kHz to be used for planning the maritime mobile service. *E/6/67

E/6/54 3. The Conference should adopt the frequency channelling and pairing Plan in Annex II.5 to this document.(E/6/66)

E/6/55 4. When drawing up a plan for the maritime mobile service (telephony) the Conference should not take account of provisions 4358 and 4366 of the Radio Resulations, which designate four frequencies (2 046, 2 049, 2 053 and 2 056 kHz) for international use by ship stations in Region 1.

Since this Conference has no authority to amend the Radio Regulations, the adoption of the above proposal would entail the preparation of a Recommendation requesting the 1987 Conference for Mobile Services to delete or amend RR 4358 to 4366.

E/6/56 5. The Conference should designate two of the 55 frequency pairs in Annex II.5 to this document as international frequencies for telephony. They should not be assigned to any specific coast station but made available to all coast stations in Region 1.

In addition, the Spanish Administration considers that the two international ship-station frequencies should be able to operate in conjunction with any of the working frequencies assigned to a coast station (cross-band operation).

E/6/57 6. The remaining 53 of the 55 RF channel pairs listed in Annex II.5 to this document should be used to draw up the frequency assignment Plan for coast stations (telephony).

2.5.2 The Spanish Administration suggests that the following criteria should be adopted to meet requests for frequency assignments in these bands :

E/6/58 a) All coast stations planned for operation in these bands should have at least one assignment entered in the Plan.

E/6/59 b) This assignment should enjoy full protection from both ground-wave and sky-wave transmissions from other coast stations.

E/6/60 c) If one channel pair cannot be assigned to each coast station with the required protection, some of the requests for assignments will have to be rejected, having regard to the following principles which are set out in order of priority :

c.1 - limiting the requirements to be met in these frequency bands to those involving PUBLIC CORRESPONDENCE;

c.2 - limiting the service area of all the coast stations, or at least those in the most severely affected areas;

c.3 - transfer of some telephony requirements (for public correspondence) from these bands to those listed in Appendix 3 to Resolution 704 of WARC-MOB-83.

2.5.3 Meeting additional telephony requirements

E/6/61 Any additional telephony assignments required by a coast station, after the criteria in 2.5.2 above have been applied, should be made on the following basis :

a) Assignment of a second frequency to coast stations if justified by traffic volume supported by statistics. The second assignment should enjoy full protection from ground-wave and sky-wave signals from other coast stations.

If the assignment cannot be fully protected, ground-wave protection alone would be provided. If that cannot be done either, the possibility would have to be considered to reducing the service area of either all the stations involved or at least those in the most severely affected areas.

b) Requests to assign a third frequency to a coast station would be subject to the above criterion and they would be taken up after the requests for a second assignment had been dealt with.

3. Frequency requirements for Spanish coast stations

The Spanish Administration, which is aware of the RF channel constraints that affect planning in the various frequency bands, has endeavoured to keep its requests for frequency assignments at a minimum.

In particular, Spanish requirements for telephony and direct-printing telegraphy in the 2 MHz band have been distributed among the bands in Appendices 2 and 3 to Resolution 704 of WARC-MOB-83. In other words, we have submitted to the Conference only partial requirements in the 2 MHz band, i.e. those we would like to see accommodated in the bands in Appendix 2 to the above Resolution.

Furthermore, the Spanish Administration has only requested assignments in the frequency bands in Appendix 2 to Resolution 704 for its most important coast stations. These are other coast stations currently operating in the Appendix 2 bands for which no requests relating to those bands have been submitted.

Annexes II.7 and II.8 respectively contain tables summarizing Spain's requests in the 0.5 MHz and 2 MHz bands. Both tables give the name of each coast station, its geographical coordinates, the type of service, the number of frequencies requested and the associated service area.

ANNEX II.1

E/6/62

DRAFT RESOLUTION [E-A]

relating to the transfer of assignments in the permitted services operating in Region 1 in the bands 415 - 435, 505 - 526.5, 1 606.5 - 1 625, 1 635 - 1 800 and 2 045 - 2 160 kHz which are incompatible with the frequency assignment Plans for the primary services in these bands.

The Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in certain parts of the MF band in Region 1 (Geneva, 1985),

considering

a) the allocations to the various services in the frequency bands 415 - 435, 505 - 526.5, 1 606.5 - 1 625, 1 635 - 1 800 and 2 045 - 2 160 kHz; in Region 1 decided by WARC-79;

b) provision 419 of the Radio Regulations and the construction placed upon it by this Conference [see E/6/23];

c) the frequency assignment plans drawn up by this Conference for the maritime mobile service and the aeronautical radionavigation service;

resolves

1. to request the IFRB to draw up a list of the frequency assignments in the above frequency bands to permitted services in Region 1 countries, which were entered in the International Frequency Register prior to the opening date of this Conference and are incompatible with the Plans for the maritime mobile and aeronautical radionavigation services drawn up by the Conference;

2. to request the IFRB, in agreement with the administrations affected by the above exercise, to seek and propose replacements for assignments in the permitted services which are incompatible with the Plan and still necessary to the administrations;

3. that the changeover from the incompatible to the replacement assignments should be completed by [date of entry into force of the Plans].

ANNEX II.2

E/6/63

CHANNELLING PLAN FOR THE MARITIME MOBILE SERVICE IN THE BAND 435 - 526.5 kHz

DUPLEX AND SEMI-DUPLEX COMMUNICATIONS

RF channel pair No.	Coast station (kHz)	Ship station (kHz)	RF channel pair No.	Coast station (kHz)	Ship station (kHz)
1	435.5	475.5	30	510.5	461.5
2	436	476	31	511	462
3	436.5	476.5	32	511.5	462.5
4	437	477	33	512.5	463
5	437.5	477.5	34	513	463.5
6	438	478	35	513.5	464
7	438.5	478.5	36	514	464.5
8	439	479	37	514.5	465
9	439.5	479.5	38	515	465.5
10	440	480*	39	515.5	466
11	440.5	480.5	40	516	466.5
12	441	481	41	516.5	467
13	441.5	481.5	42	517	467.5
14	442	482	43	519	468*
15	442.5	482.5	44	519.5	468.5
16	443	483	45	520	469
17	443.5	483.5	46	520.5	469.5
18	444	484	47	521	470
19	444.5	484.5	48	521.5	470.5
20	445	485	49	522	471
21	445.5	485.5	50	522.5	471.5
22	446	486	51	523	472
23	446.5	486.5	52	523.5	472.5
24	447	487	53	524	473
25	447.5	487.5	54	524.5	473.5
26	448	488	55	525	474
27	448.5	488.5	56	525.5	474.5
28	449	489	57	526	475
29	449.5	489.5			

* The frequencies 468 and 480 kHz are international ship station frequencies (RR 4237) - see proposal E/6/32.

ANNEX II.3

E/6/64

CHANNELLING PLAN FOR THE MARITIME MOBILE SERVICE

IN THE BAND 449.75 TO 461.25 kHz

SIMPLEX COMMUNICATIONS

RF channel No.	Frequency (kHz)
1	450
2	450.5
3	451
4	451.5
5	452
6	452.5
7	453
8	453.5
9	454.5
10	455
11	455.5
12	456
13	456.5
14	457
15	457.5
16	458
17	458.5
18	459
19	459.5
20	460
21	460.5
22	461

Note - The frequency 454 kHz in the band 449.75 to 461.25 kHz is an international ship station frequency (RR 4237) for morse telegraphy in the ship-to-shore direction.

ANNEX II.4

E/6/65 CHANNELLING PLAN FOR THE MARITIME MOBILE SERVICE IN THE BAND 1 606.5 - 1 625 kHz AND ITS ASSOCIATED BAND 2 141.5 - 2 160 kHz

RF channel pair No.	Coast station kHz	Ship station kHz
1	1 607	2 142
2	1 607.5	2 142.5
3	1 608	2 143
4	1 608.5	2 143.5
5	1 609	2 144
6	1 609.5	2 144.5
7	1 610	2 145
8	1 610.5	2 145.5
9	1 611	2 146
10	1 611.5	2 146.5
11	1 612	2 147
12	1 612.5	2 147.5
13	1 613	2 148
14	1 613.5	2 148.5
15	1 614	2 149
16	1 614.5	2 149.5
17	1 615	2 150
18	1 615.5	2 150.5
19	1 616	2 151
20	1 616.5	2 151.5
21	1 617	2 152
22	1 617.5	2 152.5
23	1 618	2 153
24	1 618.5	2 153.5
25	1 619	2 154
26	1 619.5	2 154.5
27	1 620	2 155
28	1 620.5	2 155.5
29	1 621	2 156

ANNEX II.4 (Continued)

RF channel pair No.	Coast station kHz	Ship station kHz
30	1 621.5	2 156.5
31	1 622	2 157
32	1 622.5	2 157.5
33	1 623	2 158
34	1 623.5	2 158.5
35	1 624	2 159
36	1 624.5	2 159.5

ANNEX II.5

E/6/66

FREQUENCY CHANNELLING AND PAIRING PLAN FOR THE BANDS

1 635 - 1 800 kHz and 1 975 - 2 141 kHz

	Coast station		Ship station	
RF channel pair No.	Carrier frequency kHz	Assigned frequency kHz	Carrier frequency kHz	Assigned frequency kHz
1	1 635	1 636.4	1 975*	1 976.4*
2	1 638	1 639.4	1 978*	1 979.4*
3	1 641	1 642.4	1 981*	1 982.4*
4	1 644	1 645.4	1 984*	1 985.4*
5	1 647	1 648.4	1 987*	1 988.4*
6	1 650	1 651.4	1 990*	1 991.4*
7	1 653	1 654.4	1 993*	1 994.4*
8	1 656	1 657.4	1 996*	1 997.4*
9	1 659	1 660.4	1 999*	2 000.4*
10	1 662	1 663.4	2 002*	2 003.4*
11	1 665	1 666.4	2 005*	2 006.4*
12	1 668	1 669.4	2 008*	2 009.4*
13	1 671	1 672.4	2 011*	2 012.4*
14	1 674	1 675.4	2 014*	2 015.4*
15	1 677	1 678.4	2 017*	2 018.4*
16	1 680	1 681.4	2 020*	2 021.4*
17	1 683	1 684.4	2 023*	2 024.4*
18	1 686	1 687.4	2 026*	2 027.4*
19	1 689	1 690.4	2 029*	2 030.4*
20	1 692	1 693.4	2 032*	2 033.4*
21	1 695	1 696.4	2 035*	2 036.4*
22	1 698	1 699.4	2 038*	2 039.4*
23	1 701	1 702.4	2 041*	2 042.4*
24	1 704	1 705.4	2 045	2 046.4
25	1 707	1 708.4	2 048	2 049.4
26	1 710	1 711.4	2 051	2 052.4
27	1 713	1 714.4	2 054	2 055.4

* See draft Recommendation [E-B]

ANNEX II.5 (Continued)

RF channel pair No.	Coast station Carrier frequency kHz	Coast station Assigned frequency kHz	Ship station Carrier frequency kHz	Ship station Assigned frequency kHz
28	1 716	1 717.4	2 057	2 058.4
29	1 719	1 720.4	2 060	2 061.4
30	1 722	1 723.4	2 063	2 064.4
31	1 725	1 726.4	2 066	2 067.4
32	1 728	1 729.4	2 069	2 070.4
33	1 731	1 732.4	2 072	2 073.4
34	1 734	1 735.4	2 075	2 076.4
35	1 737	1 738.4	2 078	2 079.4
36	1 740	1 741.4	2 081	2 082.4
37	1 743	1 744.4	2 084	2 085.4
38	1 746	1 747.4	2 087	2 088.4
39	1 749	1 750.4	2 090	2 091.4
40	1 752	1 753.4	2 093	2 094.4
41	1 755	1 756.4	2 096	2 097.4
42	1 758	1 759.4	2 099	2 100.4
43	1 761	1 762.4	2 102	2 103.4
44	1 764	1 765.4	2 105	2 106.4
45	1 767	1 768.4	2 108	2 109.4
46	1 770	1 771.4	2 111	2 112.4
47	1 773	1 774.4	2 114	2 115.4
48	1 776	1 777.4	2 117	2 118.4
49	1 779	1 780.4	2 120	2 121.4
50	1 782	1 783.4	2 123	2 124.4
51	1 785	1 786.4	2 126	2 127.4
52	1 788	1 789.4	2 129	2 130.4
53	1 791	1 792.4	2 132	2 133.4
54	1 794	1 795.4	2 135	2 136.4
55	1 797	1 798.4	2 138	2 139.4

ANNEX II.6

E/6/67

DRAFT RECOMMENDATION [E-B]

relating to the designation of 23 RF channels in the band 1 975 - 2 044 kHz to be paired with 23 channels in the band 1 635 - 1 704 kHz for use by ship stations for ship-to-shore transmissions

The Regional Administrative Radio Conference for the Maritime Mobile Service and Aeronautical Radionavigation Service in certain parts of the MF band in Region 1 (Geneva, 1985),

considering

a) the allocation of the band 1 850 - 2 000 kHz in Region 1 decided by WARC-79;

b) provision 495 of the Radio Regulations referring to "the special requirements of the maritime mobile service" in this band;

c) Resolution 704 of WARC-MOB-83 and in particular Appendix 3 thereto;

d) the terms of reference of this Conference established by the ITU Administrative Council (Administrative Council Resolution 897 (1983)) and, in particular, the imbalance between the number of RF channels available, respectively, in the bands 1 635 - 1 800 kHz (55 channels) and 2 045 - 2 141 kHz (32 channels);

e) the advantages of pairing channels for duplex and semi-duplex communications with a view to future automatic or semi-automatic operations;

f) the frequency assignment requirements for radiotelephony submitted to this Conference by administrations;

recommends

1. that administrations make every effort, having regard to the conditions laid down in the Agreement drawn up by this Conference for radiotelephony, to give the maritime mobile service access to the 23 channels listed in the Annex to this Recommendation;

2. that the IFRB identify those administrations operating installations in the fixed and land-mobile services which are incompatible with the use foreseen in the Plan for the 23 channels in the Annex;

3. that the administrations identified under paragraph 2 above make every effort to transfer those of their installations which are incompatible with the use foreseen in the Plan for the 23 channels to nearby frequencies compatible with such use;

4. that, if required, the IFRB assist the administrations affected by this Recommendation to transfer the assignments concerned in the fixed and land-mobile services as quickly as possible.

ANNEX II.6

E/6/67 (contd.)

ANNEX TO RECOMMENDATION [E-B]

LIST OF RF CHANNELS AFFECTED BY RADIOTELEPHONY PLANNING

Carrier frequency kHz	Assigned frequency kHz
1 975	1 976.4
1 978	1 979.4
1 981	1 982.4
1 984	1 985.4
1 987	1 988.4
1 990	1 991.4
1 993	1 994.4
1 996	1 997.4
1 999	2 000.4
2 002	2 003.4
2 005	2 006.4
2 008	2 009.4
2 011	2 012.4
2 014	2 015.4
2 017	2 018.4
2 020	2 021.4
2 023	2 024.4
2 026	2 027.4
2 029	2 030.4
2 032	2 033.4
2 035	2 036.4
2 038	2 039.4
2 041	2 042.4

ANNEX II.7

SPAIN

FREQUENCY REQUIREMENTS IN THE 0.5 MHz BAND

Coast station	Coordinates	Type of service	Number of frequencies	Service area (km)
BAGUR	3° 13' E 41° 58' N	Morse	1	550
		NBDP	1	550
		DSC	1	550
CABO LA NAO	0° 11' E 38° 43' N	Morse	1	550
		NBDP	1	550
		DSC	1	550
CABO PEÑAS	5° 51' W 43° 39' N	Morse	1	550
		NBDP	1	550
		DSC	1	550
CADIZ R.N.	6° 12' W 36° 15' N	Morse	1*	600
		NBDP	1	600
		DSC		
CARTAGENA R.N.	0° 58' W 37° 36' N	Morse	1*	600
		NBDP	1	600
		DSC		
FERROL R.N.	8° 16' W 43° 28' N	Morse	1*	600
		NBDP	1	600
		DSC		
FINISTERRE	9° 16' W 42° 54' N	Morse	2	550
		NBDP	1	550
		DSC	1	550

* Simplex operation

ANNEX II.7 (Continued)

Coast station	Coordinates	Type of service	Number of frequencies	Service area (km)
LAS PALMAS	15° 36' W 27° 45' N	Morse	1	550
		NBDP	1	550
		DSC	1	550
LAS PALMAS R.N.	15° 26' W 28° 09' N	Morse	1*	600
		NBDP	1	600
		DSC		
TÁRIFA	5° 26' W 36° 03' N	Morse	2	550
		NBDP	1	550
		DSC	1	550
TENERIFE	16° 20' W 28° 25' N	Morse	2	550
		NBDP	1	550
		DSC	1	550

* Simplex operation

ANNEX II.8

SPAIN

FREQUENCY REQUIREMENTS IN THE 2 MHz BAND

Coast station	Coordinates	Type of service	Number of frequencies	Service area (km)
ARRECIFE	13° 21' W 29° 08'N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
BAGUR	3° 13' E 41° 58' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
BARCELONA	1° 55' E 41° 17' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
CABO DE GATA	2° 12' W 36° 43' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
CABO LA NAO	0° 11' E 38° 43' N	Telephony	1	370
		NBDP	1	550
		DSC	1	550
CABO PEÑAS	5° 51' W 43° 39' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
CADIZ R.N.	6° 12' W 36° 15' N	Telephony	1	400
		NBDP	1	400
		DSC		

ANNEX II.8 (Continued)

Coast station	Coordinates	Type of service	Number of frequencies	Service area (km)
CARTAGENA R.N.	0° 58' W 37° 36' N	Telephony	1	400
		NBDP	1	400
		DSC		
CHIPIONA	6° 25' W 36° 42' N	Telephony	3	370
		NBDP	1	550
		DSC	1	550
CORUÑA	8° 27' W 43° 22' N	Telephony	3	370
		NBDP	1	550
		DSC	1	550
FERROL R.N.	8° 16' W 43° 28' N	Telephony	1	400
		NBDP	1	400
		DSC		
FINISTERRE	9° 16' W 42° 54' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
LAS PALMAS	15° 36' W 27° 45' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
LAS PALMAS R.N.	15° 26' W 28° 09' N	Telephony	1	400
		NBDP	1	400
		DSC		

ANNEX II.8 (Continued)

Coast station	Coordinates	Type of service	Number of frequencies	Service area (km)
MACHICHACO	2° 45' W 43° 27' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
TARIFA	5° 33' W 36° 03' N	Telephony	2	370
		NBDP	1	550
		DSC	1	550
TENERIFE	16° 20' W 28° 25' N	Telephony	3	370
		NBDP	1	550
		DSC	1	550

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 7-E
30 August 1984
Original : English

PLENARY MEETING

Kingdom of The Netherlands

PROPOSALS FOR THE WORK OF THE CONFERENCE

1 INTRODUCTION

The Netherlands Administration is of the opinion that this Conference will be important as regards the use of the MF band in Region 1 by both the maritime and the aeronautical communities.

In establishing frequency assignment plans in accordance with the agenda, an enhancement of the use by both the maritime mobile and the aeronautical radionavigation services of the bands concerned should be aimed at.

For this purpose, the Netherlands Administration is submitting a number of proposals for consideration by the Conference. The proposals are arranged in the sequence of the agenda.

2 PROPOSALS RELATED TO AGENDA ITEM 2.1

2.1 Structure of the agreement

HOL/ 7 /1 It is proposed that the Conference should produce one agreement covering the following four frequency assignment plans:

a. a plan for the aeronautical radiobeacons in the aeronautical radionavigation service in the frequency band 415 - 435 kHz in Region 1;

b. a plan for the frequency band 435 - 526.5 kHz for the maritime mobile service and for the aeronautical radio beacons in the aeronautical radionavigation service in the frequency band 505 - 526.5 kHz in Region 1;

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c. a plan for narrow-band direct-printing telegraphy in the maritime mobile service in the frequency bands 1606.5 - 1625 kHz and 2142 - 2160 kHz in Region 1;

d. a plan for single sideband radiotelephony in the maritime mobile service in the frequency bands 1635 - 1800 kHz and 2045 - 2142 kHz in Region 1.

It should be clear from the text of the agreement when a provision applies to only one of the four annexed frequency assignment plans. The technical parameters relating to the various plans should be specified in separate annexes.

2.2 Planning and use of the frequency band 415 - 435 kHz

HOL/7/2 2.2.1 As far as the planning of the band 415 - 435 kHz is concerned, the Netherlands Administration proposes establishing a frequency assignment plan for the aeronautical radiobeacons in the aeronautical radionavigation service only.
No frequency assignment plan is proposed for the permitted maritime mobile service in this band.

2.2.2 In the frequency band 415 - 435 kHz, the frequency 425 kHz is one of the worldwide working frequencies for morse telegraphy in the ship-to-shore direction in the authorized bands between 405 and 535 kHz (See RR No. 4237).
Continued use of this frequency by the maritime mobile service in Region 1 after the implementation of the frequency assignment plan for aeronautical radiobeacons would seriously hamper the implementation of the plan.
However, this Conference is neither competent to modify RR No. 4237 in order to suppress the frequency 425 kHz from this provision nor to replace this frequency by another within the frequency band 435 - 526.5 kHz.
This can only be done by a competent WARC.

HOL/7/3 For this purpose and in order to prevent problems for the aeronautical community, the Netherlands Administration is submitting Recommendation HOL A.

2.2.3 RECOMMENDATION HOL A

Relating to the international working frequency for morse telegraphy in the ship-to-shore direction, 425 kHz

The Regional Administrative Radio Conference for the maritime mobile service and the aeronautical radionavigation service in certain parts of the MF band in Region 1 (Geneva, 1985)

considering

a) that the World Administrative Radio Conference Geneva 1979 allocated the frequency band 415 - 435 kHz in Region 1 to the aeronautical radionavigation service on a primary basis and to the maritime mobile service on a permitted basis;

b) that this Conference has established a frequency assignment plan for the aeronautical radiobeacons in the band 415 - 435 kHz;

c) that this Conference has decided not to plan the band 415 - 435 kHz for use by the permitted maritime mobile service;

recognizing

a) the importance of the allocation of the band 415 - 435 kHz to the aeronautical radionavigation service;

b) that in provision No. 4237 of the Radio Regulations the frequency 425 kHz is assigned as one of the international ship-to-shore morse telegraphy frequencies;

further considering

a) that the continued use of the frequency 425 kHz in Region 1 by the maritime mobile service will have a negative influence on the implementation of the frequency plan for the aeronautical radiobeacons;

b) that the revision of No. 4237 is not within the terms of reference of this Conference;

urges administrations

to refrain from using in Region 1 the frequency 425 kHz in the maritime mobile service after the implementation of the frequency assignment plan for the aeronautical radiobeacons in the band 415 - 435 kHz;

recommends

that the World Administrative Radio Conference planned for 1987 should revise Provision No. 4237 in order to delete the frequency 425 kHz from this Provision and to replace it by a frequency from the band 450 - 461 kHz;

invites the Administrative Council

to take the necessary steps to place this recommendation on the agenda of the World Administrative Radio Conference planned for 1987;

requests the Secretary General

to bring this recommendation to the attention of all members of the ITU.

2.3 Planning and use of the frequency band 435 - 526.5 kHz for the maritime mobile service and of the frequency band 505 - 526.5 kHz for the aeronautical radionavigation service

HOL/ 7/4 2.3.1 The Netherlands Administration proposes establishing a frequency assignment plan for coast stations in the maritime mobile service in the subbands 435 - 449.5 kHz and 510 - 526.5 kHz. The coast station frequencies to be planned shall be paired with the ship station frequencies in accordance with the pairing instructions in point 2 of Appendix 1 to Resolution 704 (MOB-83).
The channeling arrangements to be used are included in Section A of the Annex to Recommendation HOL B (see par. 6.1.2).

2.3.2 In the subband for ship stations 461.5 - 489.5 kHz, which should be paired with the coast station frequencies mentioned in paragraph 2.3.1, two worldwide working frequencies for morse telegraphy in the ship-to-shore direction are located, viz. 468 and 480 kHz (see RR No. 4237). Since provision RR 4237 cannot be modified by this Conference, it is not advisable to include the corresponding coast station frequencies, 440 and 519 kHz respectively, in the plan to be established for the maritime mobile service.

HOL/ 7 /5 Therefore, the Netherlands Administration proposes not assigning the frequencies 440 and 519 kHz to any coast station but setting these frequencies aside as common frequencies for use by coast stations.

2.3.3 According to Appendix 1 to Resolution No. 704 (MOB-83) the subband 450 - 461 kHz is for use by coast stations, ship stations and for intership working.

HOL/ 7 /6 The Netherlands Administration proposes not establishing a frequency assignment plan for the 23 channels in this subband.

HOL/ 7 /7 2.3.4 As regards the planning of the subband 505 - 526.5 kHz the Netherlands Administration proposes including in the frequency assignment plan assignments to coast stations in the maritime mobile service as well as to the aeronautical radiobeacons.

2.3.5 The band 435 - 526.5 kHz may be used in the maritime mobile service for morse telegraphy and narrow-band direct-printing telegraphy. For narrow-band direct-printing telegraphy for duplex operation the assigned channels must be used. In the case of morse telegraphy the assigned channels may be used, but ship stations may also use one of the worldwide working frequencies mentioned in RR No. 4237 (except 425 kHz).
A coast station may also operate on one of the common coast station frequencies 440 or 519 kHz or on a frequency from the subband 450 - 461 kHz.

2.4 Planning and use of the frequency bands 1606.5 - 1625 kHz and 2142 - 2160 kHz for narrow-band direct-printing telegraphy by the maritime mobile service

HOL/ 7 /8 2.4.1 The Netherlands Administration proposes using the channeling arrangement set out in the annex to Recommendation HOL C (see par. 6.2.2) as a basis for the planning.
However, channels No. 1 to No. 8 should not be included in the plan but should be reserved as common frequencies for digital selective calling.

2.5 Planning and use of the frequency bands 1635 - 1800 kHz and 2045 - 2142 kHz for single sideband telephony in the maritime mobile service

2.5.1 Appendix 2 to Resolution 704 (MOB-83) specifies that the band 1635 - 1800 kHz is for use by coast stations for radiotelephony.
In this band 55 frequencies are available.
These frequencies have to be paired with 32 frequencies for ship stations in the subband 2045 - 2142 kHz.
However, provisions RR 4358 - 4368 stipulate that ships making international voyages in Region 1 should be able to use the frequencies 2047.4 kHz (carrier frequency 2046 kHz) and 2050.4 kHz (carrier frequency 2049 kHz) in the ship-to-shore direction and the frequencies 2054.5 kHz (carrier frequency 2053 kHz) and 2057.4 kHz (carrier frequency 2056 kHz) for intership traffic and as additional ship-to-shore frequencies. This makes it undesirable to pair these four frequencies with coast station frequencies in the band 1635 - 1800 kHz.

HOL/ 7/9 Therefore the Netherlands Administration proposes using only 27 of the available 31 channels in the establishment of a frequency assignment plan (starting from carrier frequency 2059 kHz, i.e. assigned frequency 2060.4 kHz).

2.5.2 Another problem is the unbalance between the number of frequencies for coast stations (viz 54) and that for ship stations (viz 27).
Various channeling arrangements are possible.

However, taking into account the agenda items 2.3 and 2.4 which aim at leaving scope for the other services to which the bands 1606.5 - 1625 kHz, 1635 - 1800 kHz and 2045 - 2160 kHz are allo-
HOL/ 7 /10 cated, the Netherlands Administration proposes the following arrangement.

27 coast station frequencies from the band 1635 - 1800 kHz should be paired with the 27 ship station frequencies available in the band 2045 - 2142 kHz.
This arrangement is included in Section A of the Annex to Recommendation HOL D (see par. 6.3.2).

2.5.3 The remaining 27 coast station frequencies from the band 1635 - 1800 kHz may be included in the planning and be assigned to coast stations for unilateral transmissions or for pairing with ship station frequencies outside the bands planned.
The choice of the corresponding ship station frequencies should be left to the administrations concerned.
HOL/ 7 /11 The Netherlands Administration also proposes allowing the 27 coast station frequencies to be used for simplex operation.

3 PROPOSAL RELATED TO AGENDA ITEM 2.2

HOL/ 7 /12 The Netherlands Administration proposes, in order to comply with resolves 2 of Resolution 38 (WARC 79) that for the stations of the maritime mobile service operating in the bands 1625 - 1635 kHz, 1800 - 1810 kHz, 1810 - 1850 kHz and 2160 - 2170 kHz replacement frequencies should be provided in the frequency assignment plan to be established by this Conference.

4 PROPOSALS RELATED TO AGENDA ITEM 2.3

Provision No. 419 of the Radio Regulations states that permitted and primary services have equal rights.
There is one exception in No. 419, namely that in the preparation of frequency plans of the primary service as compared with the permitted services, the primary service shall have prior choice of frequencies.
The Netherlands Administration is of the opinion that this provision must be interpreted as follows:

a) In the period preceding the preparation of a plan for the primary service in a frequency band which is also allocated to one or more permitted services, both services have equal rights.
This means that the permitted service can be treated as a primary service.

b) During a Conference which is entrusted with the establishment of a plan for the primary service, this service will have free choice of frequencies.
This means that existing assignments to stations of the permitted service need not be taken into account.

c) In order not to nullify the purpose of giving the primary service prior choice of frequencies in the preparation of frequency plans, the assignments appearing in the plan can be implemented having the right to protection from harmful interference from existing stations of the permitted service.
Moreover, stations of the permitted service cannot claim protection from harmful interference from stations of the primary service appearing in the plan.

While this approach gives an advantage to the primary service in a frequency band also allocated to a permitted service, during the preparation and implementation of the plan, it does not comply with the instruction given to the Conference in agenda item 2.3.

HOL/ 7 /13 Therefore, in order to recognize the assignments in the permitted services, the Netherlands Administration proposes that a procedure should be established, whereby the IFRB is instructed to assist administrations in finding replacement frequencies in the period between the Conference and the entry into force of the Final Acts of the Conference.

For the assignments in the fixed service of the administrations mentioned in footnote 483 to the Table of Frequency Allocations in the Radio Regulations, replacement frequencies should already be sought during the Conference without hampering the establishment of the plan for the maritime mobile service.

In this context an existing assignment shall be understood as an assignment recorded in the Master Register with a favourable finding and a date in column 2A.

With respect to assignments to a station of the permitted service notified after the entry into force of the Final Acts and entered in the Master Register with a favourable finding, these will have the same status as the assignments appearing in the plan.

5 PROPOSAL RELATED TO AGENDA ITEM 2.4

HOL/ 7/14 In order to permit a compatible development of the other services to which the bands 415 - 435 kHz, 1606.5 - 1625 kHz, 1635 - 1800 kHz and 2045 - 2160 kHz are allocated, it is proposed that the procedure for modifications to the plans should include provisions to the effect that agreement has to be sought of those administrations which have an assignment in the same band in a non-planned service which is recorded in the Master Register with a date in column 2A, if the proposed modification to the plan is considered to affect this assignment.

6 PROPOSALS RELATED TO AGENDA ITEM 2.5

6.1 CHANNELING ARRANGEMENT FOR THE FREQUENCY BAND 435 - 526.5 kHz

HOL/ 7/15 6.1.1 To comply with agenda item 2.5 the Netherlands Administration proposes the following Recommendation with a view to the later inclusion in the Radio Regulations of a channeling arrangement for the band 435 - 526.5 kHz used by this Conference.

6.1.2 RECOMMENDATION HOL B

Relating to the channeling arrangement in the frequency band 435 - 526.5 kHz in Region 1

The Regional Administrative Radio Conference for the maritime mobile service and the aeronautical radionavigation service in certain parts of the MF band in Region 1, (Geneva, 1985)

considering

a) that this Conference has established an agreement and associated frequency plan for the frequency band 435 - 526.5 kHz for the maritime mobile service and for the frequency band 505 - 526.5 kHz for the aeronautical radiobeacons in the aeronautical radionavigation service;

b) that the Tables of Recommended Assignable Frequencies appearing in Appendix 1 to Resolution 704 (MOB-83) were used as a basis for the planning of these bands;

noting

that it is within the terms of reference of this Conference to establish the final texts of an appendix to the Radio Regulations containing the channeling arrangement in Appendix 1 to Resolution 704 (MOB-83) with the view to the later inclusion in the Radio Regulations;

further considering

a) that in Resolution 704 (MOB-83) the Administrative Council is invited to place on the agenda of the WARC for the mobile services planned for 1987 an item covering the inclusion in the Radio Regulations of Appendices containing the channeling arrangements in the bands referred to above;

b) that it is necessary to have a regulatory framework in the Radio Regulations concerning the use in Region 1 of the frequency band 435 - 526.5 kHz;

recommends

inclusion of the Table of Frequencies appearing in the annex to this recommendation concerning the frequency band 435 - 526.5 kHz in the Radio Regulations as an appendix;

invites the Administrative Council

to ensure that the Conference for the mobile services planned for 1987 is competent to include this appendix in the Radio Regulations.

Annex to Recommendation HOL B

Appendix

Channeling of the frequency bands between 435-526.5 kHz for the maritime mobile service.

Section A.

Channel no	Transmitting frequencies (kHz)	
	Coast stations	Ship stations
1	435.5	475.5
2	436	476
3	436.5	476.5
4	437	477
5	437.5	477.5
6	438	478
7	438.5	478.5
8	439	479
9	439.5	479.5
	440	480
10	440.5	480.5
11	441	481
12	441.5	481.5
13	442	482
14	442.5	482.5
15	443	483
16	443.5	483.5
17	444	484
18	444.5	484.5
19	445	485
20	445.5	485.5
21	446	486
22	446.5	486.5
23	447	487
24	447.5	487.5
25	448	488
26	448.5	488.5
27	449	489

Section A

Channel no	Transmitting frequencies (kHz)	
	Coast stations	Ship stations
28	449.5	489.5
29	510.5	461.5
30	511	462
31	511.5	462.5
32	512.5	463
33	513	463.5
34	513.5	464
35	514	464.5
36	514.5	465
37	515	465.5
38	515.5	466
39	516	466.5
40	516.5	467
41	517	467.5
	519	468
42	519.5	468.5
43	520	469
44	520.5	469.5
45	521	470
46	521.5	470.5
47	522	471
48	522.5	471.5
49	523	472
50	523.5	472.5
51	524	473
52	524.5	473.5
53	525	474
54	525.5	474.5
55	526	475

note 1. Conditions of use are prescribed in articles 59 and 60.

note 2. The use of these channels in Region 1 is subject to the Agreement [of Geneva 1985].

note 3. For the use of the frequencies 468 and 480 kHz see RR no. 4237.

note 4. The frequencies 440 and 519 kHz are common frequencies for coast stations.

Section B

Channel no	Assignable frequencies (kHz)
56	450
57	450.5
58	451
59	451.5
60	452
61	452.5
62	453
63	453.5
64	454
65	454.5
66	455
67	455.5
68	456
69	456.5
70	457
71	457.5
72	458
73	458.5
74	459
75	459.5
76	460
77	460.5
78	461

note 1. The conditions for the use of these frequencies are prescribed in articles 59 and 60.

note 2. The frequencies in this section may be used by coast stations, ship stations and for intership working.

note 3. For the use of the frequency 454 see No. 4237.

note 4. When choosing from the above frequencies, the use of the frequency 455 kHz as an intermediate frequency in broadcast receivers should be borne in mind.

6.2 CHANNELING ARRANGEMENT FOR THE FREQUENCY BANDS 1606.5 - 1625 kHz AND 2142 - 2160 kHz

HOL/7 /16 6.2.1 In order to comply with agenda item 2.5 the Netherlands Administration proposes the following Recommendation with a view to the later inclusion in the Radio Regulations of a channeling arrangement for the bands 1606.5 - 1625 kHz and 2142 - 2160 kHz used by this Conference.

6.2.2 RECOMMENDATION HOL C

Relating to the channeling arrangement in the frequency bands 1606.5 - 1625 kHz and 2142 - 2160 kHz in Region 1

The Regional Administrative Radio Conference for the maritime mobile service and the aeronautical radionavigation service in certain parts of the MF band in Region 1 (Geneva, 1985)

considering

a) that this Conference has established an agreement and associated frequency plans for the frequency bands 1606.5 - 1625 kHz and 2142 - 2160 kHz for narrow-band direct printing in the maritime mobile service in Region 1;

b) that the Tables of Recommended Assignable Frequencies appearing in Appendix 2 to Resolution 704 (MOB-83) were used as a basis for the planning of these bands;

noting

that it is within the terms of reference of this Conférence to establish the final texts of appendices to the Radio Regulations containing the channeling arrangements in Appendix 1 and 2 to Resolution 704 (MOB-83) with the view to their later inclusion in the Radio Regulations;

further considering

a) that in Resolution 704 (MOB-83) the Administrative Council is invited to place on the agenda of the WARC for the mobile services planned for 1987 an item covering the inclusion in the Radio Regulations of Appendices containing the channeling arrangements in the bands referred to above;

b) that it is necessary to have a regulatory framework in the Radio Regulations concerning the use in Region 1 of the frequency bands 1606.5 - 1625 kHz and 2142 - 2160 kHz;

recommends

inclusion of the Table of Frequencies appearing in the annex to this recommendation concerning the frequency bands 1606.5 - 1625 kHz and 2142 - 2160 kHz in the Radio Regulations as an appendix;

invites the Administrative Council

to ensure that the Conference for the mobile services planned for 1987 is competent to include this appendix in the Radio Regulations.

Annex to Recommendation HOL C

Appendix

Channeling of the frequency bands 1606.5-1625 kHz and 2142-2160 kHz used for narrow-band direct-printing telegraphy by the maritime mobile service.

Channel no	Transmitting frequencies (kHz)	
	Coast stations	Ship stations
1	1607	2142
2	1607.5	2142.5
3	1608	2143
4	1608.5	2143.5
5	1609	2144
6	1609.5	2144.5
7	1610	2145
8	1610.5	2145.5
9	1611	2146
10	1611.5	2146.5
11	1612	2147
12	1612.5	2147.5
13	1613	2148
14	1613.5	2148.5
15	1614	2149
16	1614.5	2149.5
17	1615	2150
18	1615.5	2150.5
19	1616	2151
20	1616.5	2151.5
21	1617	2152
22	1617.5	2152.5
23	1618	2153
24	1618.5	2153.5
25	1619	2154
26	1619.5	2154.5
27	1620	2155

Channel no	Transmitting frequencies (kHz)	
	Coast stations	Ship stations
28	1620.5	2155.5
29	1621	2156
30	1621.5	2156.5
31	1622	2157
32	1622.5	2157.5
33	1623	2158
34	1623.5	2158.5
35	1624	2159
36	1624.5	2159.5

note 1. Channel nos 1 up to and including 8 are reserved for digital selective calling.

note 2. Conditions of use are prescribed in articles 59 and 60.

note 3. The use of the channels nos. 9 up to and including 36 in Region 1 is subject to the Agreement [of Geneva 1985]

6.3 CHANNELING ARRANGEMENT FOR THE FREQUENCY BANDS 1635 - 1800 kHz AND 2045 - 2142 kHz

HOL/ 7 /17 6.3.1 Following the instruction on the agenda of this Conference the Netherlands Administration proposes the following Recommendation HOL D with the view of the later inclusion of the annexed appendix in the Radio Regulations.

6.3.2 RECOMMENDATION HOL D

Relating to the channeling arrangement in the frequency bands 1635 - 1800 kHz and 2045 - 2142 kHz in Region 1.

The Regional Administrative Radio Conference for the maritime mobile service and the aeronautical radionavigation service in certain parts of the MF band in Region 1 (Geneva, 1985)

considering

a) that this Conference has established an agreement and associated frequency plans for the frequency bands 1635 - 1800 kHz and 2045 - 2142 kHz for single sideband radiotelephony in the maritime mobile service in Region 1;

b) that the Tables of Recommended Assignable Frequencies appearing in Appendix 2 to Resolution 704 (MOB-83) were used as a basis for the planning of these bands;

noting

that it is within the terms of reference of this Conference to establish the final texts of appendices to the Radio Regulations containing the channeling arrangements in Appendix 1 and 2 to Resolution 704 (MOB-83) with the view to their later inclusion in the Radio Regulations;

further considering

a) that in Resolution 704 (MOB-83) the Administrative Council is invited to place on the agenda of the WARC for the mobile services planned for 1987 an item covering the inclusion in the Radio Regulations of Appendices containing the channeling arrangements in the bands referred to above;

b) that it is necessary to have a regulatory framework in the Radio Regulations concerning the use in Region 1 of the frequency bands 1635 - 1800 kHz and 2045 - 2142 kHz;

recommends

inclusion of the Table of Frequencies appearing in the annex to this recommendation concerning the frequency bands 1635 - 1800 kHz and 2045 - 2142 kHz in the Radio Regulations as an appendix;

invites the Administrative Council

to ensure that the Conference for the mobile services planned for 1987 is competent to include this appendix in the Radio Regulations.

Annex to Recommendation HOL D

Appendix

Channeling of the frequency bands 1635-1800 kHz and 2045-2142 kHz used for single sideband radio telephony by the maritime mobile service.

Section A

Channel no	Transmitting frequencies (kHz)			
	Coast stations		Ship stations	
	carrier frequency	assigned frequency	carrier frequency	assigned frequency
			2046	2047.4
			2049	2050.4
			2053	2054.4
			2056	2057.4
1	1635	1636.4	2059	2060.4
2	1638	1639.4	2062	2063.4
3	1641	1642.4	2065	2066.4
4	1644	1645.4	2068	2069.4
5	1647	1648.4	2071	2072.4
6	1650	1651.4	2074	2075.4
7	1653	1654.4	2077	2078.4
8	1656	1657.4	2080	2081.4
9	1659	1660.4	2083	2084.4
10	1662	1663.4	2086	2087.4
11	1665	1666.4	2089	2090.4
12	1668	1669.4	2092	2093.4
13	1671	1672.4	2095	2096.4
14	1674	1675.4	2098	2099.4
15	1677	1678.4	2101	2102.4
16	1680	1681.4	2104	2105.4
17	1683	1684.4	2107	2108.4
18	1686	1687.4	2110	2111.4
19	1689	1690.4	2113	2114.4

Section A

Channel no	Transmitting frequencies (kHz)			
	Coast stations		Ship stations	
	carrier frequency	assigned frequency	carrier frequency	assigned frequency
20	1692	1693.4	2116	2117.4
21	1695	1696.4	2119	2120.4
22	1698	1699.4	2122	2123.4
23	1701	1702.4	2125	2126.4
24	1704	1705.4	2128	2129.4
25	1707	1708.4	2131	2132.4
26	1710	1711.4	2134	2135.4
27	1713	1714.4	2137	2138.4

Note 1. The conditions for use are prescribed in articles 59 and 60.

Note 2. The use of the channels 1 up to and including 27 in Region 1 is subject to the Agreement [of Geneva 1985].

Note 3. For the use of the carrier frequency 2046 kHz (assigned frequency 2047.4 kHz), carrier frequency 2049 kHz (assigned frequency 2050.4 kHz), carrier frequency 2053 kHz (assigned frequency 2054.4 kHz) and carrier frequency 2056 kHz (assigned frequency 2057.4 kHz) see Provisions Nos 4358 - 4366.

Section B

Channel no	Transmitting frequencies	
	Coast stations	
	carrier frequency kHz	assigned frequency kHz
28	1716	1717.4
29	1719	1720.4
30	1722	1723.4
31	1725	1726.4
32	1728	1729.4
33	1731	1732.4
34	1734	1735.4
35	1737	1738.4
36	1740	1741.4
37	1743	1744.4
38	1746	1747.4
39	1749	1750.4
40	1752	1753.4
41	1755	1756.4
42	1758	1759.4
43	1761	1762.4
44	1764	1765.4
45	1767	1768.4
46	1770	1771.4
47	1773	1774.4
48	1776	1777.4
49	1779	1780.4
50	1782	1783.4
51	1785	1786.4
52	1788	1789.4
53	1791	1792.4
54	1794	1795.4

Note 1. The conditions for use of these channels are prescribed in articles 59 and 60.

Note 2. The use of these channels in Region 1 is subject to the Agreement [of Geneva 1985].

Note 3. The channels in this section may also be used by ship stations for simplex operation.

Note 4. The choice of the frequencies for ship stations for duplex operation is left to the administrations.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 8-E
30 August 1984
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PLENARY MEETING

USSR

PROPOSALS FOR THE WORK OF THE CONFERENCE

1. Introduction

The World Administrative Radio Conference for the Mobile Services (WARC-MOB-83), Geneva, 1983, noted the need to convene the Regional Administrative Radio Conference for the Maritime Mobile Service and Aeronautical Radionavigation Service in certain parts of the MF band in Region 1.

For the reasons given in Resolution 704 of WARC-MOB-83, the Copenhagen (1948) Plan for the distribution of frequencies between the coast stations of the European Maritime Area needs to be revised and a new agreement and associated frequency assignment plan drawn up for the maritime mobile service in the bands 415 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz and for the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz.

In preparing these proposals, the USSR Administration has taken due account of the decisions of WARC-79 and WARC-MOB-83 and of the agenda of the Conference adopted by the ITU Administrative Council.

Continued shared use of the frequency band 415 - 526.5 kHz in the long term by stations in the maritime mobile and aeronautical radionavigation services will have to be based on careful consideration of the operating conditions which have arisen over a long period of years and which on the whole have enabled the stations to perform their main tasks, including communications ensuring the safety of shipping and aircraft.

Furthermore, in some of the bands to be planned by the Conference, some administrations, in addition to stations of the maritime mobile and aeronautical radionavigation services, are operating stations in other services on a primary or permitted basis (e.g. under Nos. 465, 475 and 483 of the Radio Regulations).

Hence, the primary task of the Conference must be to agree on the operational bases for the preparation of the Frequency Assignment Plans for the maritime mobile and aeronautical radionavigation services, taking account of operating conditions and the existing organizational structure of both services, as well as of their mutual interests and the interests of other services affected by the Plans, bearing in mind future developments in the services and modifications and additions to the plans adopted.

The CCIR has built up a substantial fund of experience in dealing with problems of compatibility between stations in the maritime mobile and aeronautical radionavigation services in the band 415 - 526.5 kHz, and has developed a series of parameters and criteria relating to compatibility, such as values of field strength, protection ratio and receiver characteristics, which are set out in the draft report to the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in certain parts of the MF band in Region 1 drawn up by CCIR Study Group 8 (Document 8/264 + Corr.1 + Corr.2 of the Interim Meeting of CCIR Study Group 8 for the study period 1982-1986). This report may be of assistance to the Conference in establishing the technical bases for planning.

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A third point to be taken into consideration is the fact that a fairly long period of time will be necessary to complete the changeover to the new frequency Plan in the band 415 - 526.5 kHz, since the ship radio equipment in current use in the maritime mobile service is designed on the whole for operation on fixed transmitting frequencies specified in the Radio Regulations. Moreover, in addition to being time-consuming, wholesale replacement of this equipment will mean sizeable financial outlays. On the other hand, these reasons must not be allowed to constitute artificial obstacles to the entry into force of the new frequency Plan.

The Agreement and frequency Plans developed must also allow for the scheduled introduction in 1990 of the Future Global Maritime Distress and Safety System (FGMDSS) and of changes in technical equipment brought about by scientific and technical process.

In addition to the above considerations, the USSR Administration believes that in drawing up the new frequency Plans, the Conference should also take account of the following factors :

- existing use of frequency assignments by stations in the services concerned (Copenhagen Plan for the distribution of frequencies between the coast stations of the European Maritime Area, 1948; ICAO Air Navigation Plan, 1983; International Frequency Register);

- need to establish procedures for modifying the frequency assignments to stations in the maritime mobile service and aeronautical radionavigation service provided for under current frequency Plans and recorded in the International Frequency Register;

- need to develop and adopt a procedure for modifications and additions to the frequency assignment Plans and for the inclusion of new frequency assignments for stations in a primary or permitted service, in order to accommodate future requirements as they arise;

- need to entrust the CCIR with the study of compatibility conditions for stations in the maritime mobile and aeronautical radionavigation services in the band 415 - 526.5 kHz and for stations in the maritime mobile service and other services in the band 1 605 - 2 160 kHz, and to develop technical criteria for electromagnetic compatibility of stations in the above services for consideration by WARC-MOB-87;

- need to fix the duration of the transition period for changeover to the new frequency Plans.

The USSR Administration's proposals on specific items of the Conference agenda (numbered in accordance with Resolution 897 of the ITU Administrative Council) are expounded below :

Item 2.1 "To establish an agreement and associated frequency assignment plans in the following frequency bands in Region 1 having regard to No. 419 of the Radio Regulations and Appendices 1 and 2 to Resolution 704 of the WARC for the Mobile Services, Geneva, 1983".

The USSR Administration considers that the new Agreement should incorporate the following basic planning principles in the following bands :

1. Band 415 - 435 kHz

URS/8/1 1.1 The frequencies 416, 418, 421, 429, 432 and 435 kHz should remain assigned to coast stations in the maritime mobile service as under the Copenhagen Plan.

Existing frequency assignments to stations in the maritime mobile service on these frequencies already recorded in the International Frequency Register should be transferred to the new Frequency Assignment Plans.

URS/8/2 1.2 The frequencies listed in 1.1 above may be assigned to other coast stations in the maritime mobile service subject to general coordination and provided that no harmful interference is caused to stations in the aeronautical radionavigation service.

URS/8/3 1.3 The frequency 425 kHz should remain as a ship station frequency for the maritime mobile service.

URS/8/4 1.4 The only class of emission allowed for stations in the maritime mobile service in this band should be H100A1A.

2. Band 435 - 495 kHz

URS/8/5 2.1 During the transition period, ship stations in the maritime mobile service may communicate with coast stations in the maritime mobile service, not only on the appropriate paired frequencies but also on the frequencies 425 kHz, 454 kHz, 468 kHz and 480 kHz. This provision will be valid for the first five years after the date of official entry into force of the new Frequency Assignment Plan. On expiry of that period, only the frequencies 425 kHz and 454 kHz may be used by ship stations in the maritime mobile service for unpaired operation with coast stations in the maritime mobile service.

URS/8/6 2.2 During the five years following the date of official entry into force of the new Plan, the principal classes of emission will be A1A and F1B. After this period, the principal class of emission will be F1B. However, each administration should have the right to use at least one frequency assigned to a coast station in the maritime mobile service for F1B as well as A1A emissions.

URS/8/7 2.3 Coast station transmitter power should not exceed 1 kW. However, coast stations responsible for safety communications in a given area should be allowed extra power up to a maximum of 5 kW. The power of coast station transmitters in the maritime mobile service should be calculated so as to provide the minimum necessary field strength (section 2.1.1.2 of Document 8/264) at the edge of the coast station service area. The service area of any given coast station should be delimited by the administrations to which the station belongs.

URS/8/8 2.4 The frequency 490 kHz is assigned to stations in the maritime mobile service responsible for shipping safety in particular regions. Class of emission F1B.

3. Band 495 - 505 kHz

URS/8/9 This is the guard band for frequency 500 kHz. All frequency assignments in this band are prohibited.

4. Band 505 - 526.5 kHz

URS/8/10 4.1 The frequency 512 kHz is reserved for stations in the maritime mobile service responsible for shipping safety in particular regions. Guard band ±0.5 kHz. Class of operation A1A.

URS/8/11 4.2 The frequency 518 kHz is assigned to stations in the maritime mobile service operating within the NAVTEX system. The conditions governing shared use of this frequency by radiobeacons in the aeronautical radionavigation service are set out in Annexes I and II to Document 8/264. Guard band ±0.5 kHz.

Item 2.4 "To establish procedures intended for future modifications to the Plans and permitting a compatible development of the other services to which the bands are allocated."

The USSR Administration considers that :

URS/8/12 1. The procedure should be based on advance coordination of planned new frequency assignments to stations in the maritime mobile and aeronautical radionavigation services with affected administrations, in the light of the fact that certain parts of the bands 415 - 516 kHz and 1 606 - 2 160 kHz are used on an equal footing by other services in a number of countries.

URS/8/13 2. The procedure should be similar to existing procedures for updating plans (e.g. the procedure for bringing up to date the Frequency Allotment Plan for coast radio telephone stations in Article 16 of the Radio Regulations).

URS/8/14 3. In establishing the procedures for modifications and additions to the Frequency Assignment Plans, the IFRB should identify and inform administrations of any incompatibilities between planned new assignments and assignments used in the bands concerned on an equal footing in accordance with the Radio Regulations. To identify such incompatibilities, the Board shall apply the appropriate CCIR technical standards.

Item 2.6 "To agree on a date of implementation of the above Plans, taking into account the needs of the other services to which Resolution 38 of WARC-79 applies".

URS/8/15 The USSR Administration considers that the new Frequency Assignment Plans should come into force on 1 February 1990 at 0001 hours UTC.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 9(Rev.1)-E
8 January 1985
Original: English

PLENARY MEETING

UNITED KINGDOM PROPOSAL

for a

REGIONAL AGREEMENT FOR REGION 1

concerning the use of Frequencies by the Maritime Mobile Service in the Bands 415 - 435 kHz, 435 - 526.5 kHz, 1606.5 - 1625 kHz, 1635 - 1800 kHz and 2045 - 2160 kHz and by the Aeronautical Radionavigation (Radiobeacon) Service in the Bands 415 - 435 kHz and 505 - 526.5 kHz

G/9/0 **Preamble**

The Delegates of the following Members of the International Telecommunication Union:-

meeting in Geneva for a Regional Administrative Radio Conference convened under the terms of Article 7 of the International Telecommunication Convention, Nairobi, 1982, have adopted subject to the approval of the competent authorities of their respective countries the following provisions relating to the Maritime Mobile Service and the Aeronautical Radionavigation (Radiobeacon) Service in Region 1.

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ARTICLE 1

Definitions

G/9/1 1. For the purpose of this Agreement, the following terms shall have the meanings defined below:-

Union: The International Telecommunication Union;

Secretary-General: The Secretary-General of the Union;

ICAO: The International Civil Aviation Organisation;

IFRB: The International Frequency Registration Board;

CCIR: The International Radio Consultative Committee;

Convention: The International Telecommunication Convention;

Radio Regulations: The Radio Regulations which complement the Convention;

Region 1: The geographical area defined in No 393 of the Radio Regulations;

Agreement: The whole of this Agreement including its Annexes and Appendices;

Plans: The Plans forming Annexes A to F to this Agreement and their Appendices;

Contracting Member: Any Member of the Union which has approved or acceded to this Agreement;

Administration: Any governmental department or service responsible for discharging the obligations undertaken in the International Telecommunication Convention and the Regulations;

Pairing (as applied to the Plans for the Maritime Mobile Service): A method of assigning two frequencies, one to be used by a Coast Station for transmission when communicating with ships, the other to be assigned to the same Coast Station for reception, to be used by ships for transmission when communicating with that Coast Station.

ARTICLE 2

Frequency Bands

G/9/2 2. The provisions of this Agreement apply to the following frequency bands allocated under Article 8 of the Radio Regulations:-

a) 415-435 kHz allocated to the Aeronautical Radionavigation Service on a primary basis and to the Maritime Mobile Service on a permitted basis;

b) 435-526.5 kHz allocated to the Maritime Mobile Service on a primary basis;

c) 505-526.5 kHz allocated to the Aeronautical Radionavigation Service on a permitted basis;

d) 1606.5-1625 kHz, 1635-1800 kHz and 2045-2160 kHz allocated to the Maritime Mobile Service on a primary basis.

ARTICLE 3

Execution of this Agreement

G/9/3 3. The Contracting Members shall adopt for their Aeronautical Radiobeacon stations operating in Region 1 in the frequency bands referred to in this Agreement the characteristics specified in the Plans at Annexes A and D and in their Appendices.

G/9/4 4. The Contracting Members shall adopt for their Maritime Mobile stations operating in Region 1 in the frequency bands referred to in this Agreement the characteristics specified in the Plans at Annexes B, C, E and F and in their Appendices.

G/9/5 5. The Contracting Members shall not bring assignments complying with the Plans into use, modify the technical characteristics of stations specified in the Plans, or bring new stations into use, except under the conditions specified in Articles 4 and 5 of this Agreement.

ARTICLE 4

Procedure for Modifications to the Plans

SECTION A - GENERAL

G/9/6 6. When a Contracting Member proposes to make a modification to any Plan in any of the cases described below, the procedure given in this Article shall be applied before any notification is made under the provisions of Article 12 of the Radio Regulations (in accordance with Article 5 of this Agreement). Modifications to the Plans will be necessary when an administration proposes:-

a) to modify the characteristics of a frequency assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station shown in the appropriate Plan, whether or not the station has been brought into use, or;

b) to bring into use an assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station not appearing in any of the appropriate Plans, or;

c) to modify the characteristics of a frequency assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station for which the procedure in this Article has been successfully applied, whether or not the station has been brought into use, or;

d) to cancel a frequency assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station.

G/9/7 7. In the remainder of the present Article, the term "assignment in conformity with this Agreement" means any frequency assignment appearing in any of the Plans or any frequency assignment for which the procedure of this Article has been successfully applied.

SECTION B - PROCEDURE FOR THE MARITIME MOBILE SERVICE

Procedure for Modifying the Characteristics of an Assignment or the Bringing into Use of a New Assignment

G/9/8 8. Whenever an administration intends to bring into use an assignment in conformity with this Agreement it shall act in accordance with Article 5 of this Agreement.

G/9/9 9. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall seek the agreement of all the administrations having assignments in conformity with this Agreement on the same channel or on any adjacent channel which may be affected.

G/9/10 10. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall so inform the IFRB and shall furnish the characteristics of the modification or addition using the Form at Appendix 4 to Annex C, and shall also notify to the IFRB the names of the administrations with which it considers agreement should be sought and of those with which agreement has been reached.

G/9/11 11. The IFRB shall examine the Form referred to in paragraph 10 in order to identify the administrations having frequency assignments in conformity with this Agreement which may be affected. The results of this examination shall be sent immediately by the IFRB to the administration proposing the modification or addition to the Plan in question. The IFRB shall include the

names of those administrations in the information received and shall publish the complete information in a special section of its weekly circular.

G/9/12 12. An administration which considers that it should have been included in the list of administrations whose frequency assignments may be affected shall inform the administration proposing the modification or addition to the Plan in question and at the same time it shall, giving its reasons for so doing, request the IFRB to include its name in the list.

G/9/13 13. An administration which has not notified its comments to the administration concerned and to the IFRB within a period of 90 days following the date of the weekly circular referred to in paragraph 11 shall be understood to have agreed to the proposed modification or addition.

G/9/14 14. If in seeking agreement an administration modifies its initial proposal, it shall again apply the provisions of paragraph 9 and the subsequent procedure.

G/9/15 15. If no comments have been received on expiry of the period specified in paragraph 13, or if agreement has been reached with the administrations which have made comments, the administration proposing the modification or addition shall inform the IFRB in accordance with Article 5 of this Agreement, indicating the agreed characteristics of the assignment together with the names of the administrations with which agreement has been reached.

G/9/16 16. If no agreement is reached between the administrations concerned, the IFRB shall make any study of the matter that may be requested by one or more of those administrations; the Board shall inform them of the results of the study and shall make such recommendations as it may be able to offer for the solution of the problem.

G/9/17 17. An administration before initiating this procedure and at any stage thereof may request the assistance of the IFRB, particularly in seeking the agreement of another administration.

G/9/18 18. If after application of the procedure described in this Section the administrations concerned have been unable to reach agreement, they may resort to one of the methods for the settlement of disputes described in Article 50 of the Convention or they may agree to apply the Optional Additional Protocol to the Convention.

G/9/19 19. In all cases when notifying assignments the relevant provisions of Article 12 of the Radio Regulations shall be applied. If after following the procedure specified in this Section no agreement has been reached, the IFRB following the notification of an assignment shall record it in the Master International Frequency Register but shall place against the entry a symbol indicating that the entry has been made subject to the conditions that no harmful interference will be caused to frequency assignments in conformity with this Agreement.

SECTION C - PROCEDURE FOR THE AERONAUTICAL RADIONAVIGATION SERVICE

Procedure for Modifying the Characteristics of an Assignment or the Bringing into Use of a New Assignment

G/9/20 20. Whenever an administration intends to bring into use an assignment in conformity with this Agreement it shall act in accordance with Article 5 of this Agreement.

G/9/21 21. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use should first co-ordinate the proposed modification or addition within the ICAO in respect of other aeronautical radiobeacons operating in the band in question.

G/9/22 22. Once such co-ordination has been effected, the administration concerned shall so inform the IFRB and shall furnish the characteristics of the modification or addition using the Form at Appendix 2 to Annex A, and shall also notify to the IFRB the names of the administrations with which it considers agreement should be sought in respect of their assignments to Maritime Mobile stations which are in conformity with this Agreement and of those administrations in that category with which agreement has been reached.

G/9/23 23. The IFRB shall examine the Form referred to in paragraph 22 in order to identify the administrations having maritime mobile assignments in conformity with this Agreement which may be affected. The results of this examination shall be sent immediately by the IFRB to the administration proposing the modification or addition to the Plan in question. The IFRB shall include the names of those administrations in the information received and shall publish the complete information in a special section of its weekly circular.

G/9/24 24. Any administration which considers that it should have been included in the list of administrations whose maritime mobile frequency assignments may be affected shall inform the

administration proposing the modification or addition to the Plan in question and at the same time it shall, giving its reasons for so doing, request the IFRB to include its name in the list.

G/9/25 25. An administration which has not notified its comments to the administration concerned and to the IFRB within a period of 90 days following the date of the weekly circular referred to in paragraph 23 shall be understood to have agreed to the proposed modification or addition.

G/9/26 26. If in seeking agreement an administration modifies its initial proposal, it shall again apply the provisions of paragraph 21 and the subsequent procedure.

G/9/27 27. If no comments have been received on expiry of the period specified in paragraph 25, or if agreement has been reached with the administrations which have made comments, the administration proposing the modification or addition shall inform the IFRB in accordance with Article 5 of this Agreement, indicating the agreed characteristics of the assignment together with the names of the administrations with which agreement has been reached.

G/9/28 28. If after following the procedure specified in this Section no agreement is reached between the administrations concerned, the IFRB shall make any study of the matter that may be requested by one or more of those administrations; the Board shall inform them of the results of the study and shall make such recommendations as it may be able to offer for the solution of the problem.

G/9/29 29. An administration before initiating this procedure and at any stage thereof may request the assistance of the IFRB, particularly in seeking the agreement of another administration.

G/9/30 30. If after application of the procedure described in this Section the administrations concerned have been unable to reach agreement, they may resort to one of the methods for the settlement of disputes described in Article 50 of the Convention or they may agree to apply the Optional Additional Protocol to the Convention.

G/9/31 31. In all cases when notifying assignments the relevant provisions of Article 12 of the Radio Regulations shall be applied. Where no agreement has been reached, the IFRB following the notification of an assignment shall record it in the Master International Frequency Register but shall place against the entry a symbol indicating that the entry has been made subject to the condition that no harmful interference will be caused to frequency assignments in conformity with this Agreement.

SECTION D - CANCELLATION OF ASSIGNMENTS

G/9/32 32. An administration proposing to cancel a Maritime Mobile assignment or an Aeronautical Radiobeacon assignment made in conformity with this Agreement, whether or not as a result of a modification (for instance a change of frequency), shall immediately so inform the IFRB. The Board shall publish this information in a special section of the weekly circular.

SECTION E - MAINTENANCE AND PUBLICATION OF RECORDS

G/9/33 33. The IFRB shall maintain an up-to-date master copy of the Plans and their Appendices, taking account of the application of the procedure specified in this Article; to this end the IFRB shall periodically prepare recapitulative documents listing all amendments made to the Plans as a result of modifications made in accordance with the procedures of this Article, the addition of new assignments in conformity with this Agreement, and any cancellations of which the Board has been notified.

G/9/34 34. The Secretary-General shall publish an up-to-date version of each Plan in an appropriate form as and when circumstances justiy and in any case every five years.

ARTICLE 5

Notification of Frequency Assignments

G/9/35 35. Whenever an administration intends to bring into use an assignment in conformity with this Agreement it shall notify the assignment to the IFRB in accordance with the provisions of Article 12 of the Radio Regulations. Any such assignment recorded in the Master Register as a result of the application of the provisions of Article 12 of the Radio Regulations, shall, in addition to a date in Column 2a or Column 2b, bear a symbol in the Remarks column.

G/9/36 36. In relations between Contracting Members all frequency assignments brought into use in conformity with this Agreement and recorded in the Master Register shall be considered to have the same status irrespective of the date or dates entered in Column 2 for such assignments.

ARTICLE 6

Special Arrangements

G/9/37 37. In addition to the procedures provided for in Article 4 of this Agreement and to facilitate their application with a view to improving the utilisation of the Plans, Contracting Members may conclude special arrangements in accordance with the relevant provisions of the Convention and of the Radio Regulations.

ARTICLE 7

Scope of Application of this Agreement

G/9/38 38. This Agreement shall bind Contracting Members in their relations with one another but shall not bind those Members with respect to non-Contracting countries.

G/9/39 39. If a Contracting Member makes reservations with regard to any provision of this Agreement, other Contracting Members shall be free to disregard that provision in their relations with the Contracting Member which has made such reservations.

ARTICLE 8

Approval of this Agreement

G/9/40 40. This Agreement shall be subject to approval. Instruments of approval shall be deposited, in as short a time as possible, with the Secretary-General, who shall inform the other Contracting Members.

ARTICLE 9

Accession to this Agreement

G/9/41 41. Any Member of the Union in Region 1 which has not signed this Agreement may accede thereto at any time. Such accession shall extend to the Plans as modified at the time of the accession and shall be made without reservation. The instruments of accession shall be deposited with the Secretary-General who shall promptly inform the other Contracting Members. This Agreement shall enter into force for each Member acceding to this Agreement after the date of its entry into force on the thirtieth day of the deposit by such a Member of its instrument of accession.

ARTICLE 10

Termination of Participation in this Agreement

G/9/42 42. Any Contracting Member shall have the right at any time to terminate its participation in this Agreement by a notification sent to the Secretary-General who shall inform the other Contracting Members.

G/9/43 43. Such termination of participation shall take effect after a period of one year from the date of receipt by the Secretary-General of the said notification.

ARTICLE 11

Effective Date of this Agreement

G/9/44 44. This Agreement shall enter into force on [1 April 1988] at 0001 hours UTC.

G/9/45 In witness whereof the Delegations of Members of the Union mentioned above have, on behalf of their respective competent authorities, signed this Agreement in a single copy in the French, English and Spanish languages in which, in case of dispute, the French text shall be authentic. This copy shall remain deposited in the archives of the Union. The Secretary-General shall forward one certified copy to each Member in Region 1. Done at Geneva, .. March, 1985.

Annexes: 6

G/9/46

ANNEX A

Plan for Aeronautical Radiobeacons in the Aeronautical Radionavigation (Primary) Service in the Frequency Band 415-435 kHz in Region 1

(in Alphabetical Order of Place Names)

Station	Country	Identification	Range (km)	Assigned Frequency (kHz)
Barton	G	BTN	47	415
Belfast Harbour	G	HB	28	420
Bembridge	G	IW	28	426
Blackpool	G	BPL	28	420
Boscombe Down	G	BD	47	430
Bournemouth	G	BNM	93	417
Brawdy	G	BY	47	427
Chiltern	G	CHT	47	415
Cranfield	G	CFD	28	433
Finningley	G	FY	47	417
Henton	G	HEN	56	421
Hethel	G	HTL	19	434
Lee on Solent	G	LS	19	432
Leuchars	G	LU	56	417
Longside	G	LNS	37	426
Mildenhall	G	MI	37	426
Newcastle	G	WZ	47	416
Nottingham	G	NOT	19	430
Oil Platform AMOCO 49/27A	G	CP	37	425
Oil Platform AMOCO 49/27D	G	UB	37	420
Oil Platform AMOCO 49/27F	G	TSF	37	430
Oil Platform Inde J	G	UJ	37	417
Oil Platform MCP 01	G	MP	56	430
Prestwick	G	PW	28	426
Pump Station 1	G	VT	37	426
Pump Station 2	G	VI	37	415
Saint Abbs	G	SAB	75	428
Shobdon	G	SH	19	426
Unst	G	UT	37	431
Walney Island	G	WL	28	423
Westcott	G	WCO	56	428
Wittering	G	WJ	56	419

Note: This Annex comprises an extract, relating to stations in the United Kingdom, of a draft plan for aeronautical radiobeacons in the band 415-435 kHz prepared by ICAO

G/9/46
(cont.)

APPENDIX 1 TO ANNEX A

Assignment of Frequencies to Aeronautical Radiobeacons
in the Frequency Band 415-435 kHz
(in Ascending Order of Frequency Assignment)

Assigned Frequency (kHz)	Station	Country	Identification
415	Barton	G	BTN
415	Chiltern	G	CHT
415	Pump Station 2	G	VI
416	Newcastle	G	WZ
417	Bournemouth	G	BNM
417	Finningley	G	FY
417	Leuchars	G	LU
417	Oil Platform Inde J	G	UJ
419	Wittering	G	WJ
420	Belfast Harbour	G	HB
420	Blackpool	G	BPL
420	Oil Platform AMOCO 49/27D	G	UB
421	Henton	G	HEN
423	Walney Island	G	WL
425	Oil Platform AMOCO 49/27A	G	CP
426	Bembridge	G	IW
426	Longside	G	LNS
426	Mildenhall	G	MI
426	Prestwick	G	PW
426	Pump Station 1	G	VT
426	Shobdon	G	SH
427	Brawdy	G	BY
428	Saint Abbs	G	SAB
428	Westcott	G	WCO
430	Boscombe Down	G	BD
430	Nottingham	G	NOT
430	Oil Platform AMOCO 49/27F	G	TSF
430	Oil Platform MCP 01	G	MP
431	Unst	G	UT
432	Lee on Solent	G	LS
433	Cranfield	G	CFD
434	Hethel	G	HTL

G/9/46
(cont.)

APPENDIX 2 TO ANNEX A

Notification of a Modification[1] to an Assignment Recorded in an Aeronautical Radiobeacon Plan or the Addition of an Assignment to an Aeronautical Radiobeacon Plan - Information to be Supplied in Accordance with Paragraph 22 of Article 4

1.	Name of Station	.....
2.	Country	.....
3.	Geographical Coordinates (Lat & Long)	.....
4.	Assigned Frequency	.....
5.	Designation of Emission	.....
6.	Power:-	
	a) Type	.....
	b) Supplied to the Antenna in dBW	.....
7.	Characteristics of the Antenna:-	
	a) Azimuth of Maximum Radiation	.....
	b) Angular Width of Radiation Main Lobe	.....
	c) Maximum Antenna Gain	.....
8.	Hours of Operation (UTC)	.....
9.	Service Area:-	
	a) Zone Defined by Six Points, or	.....
	b) Circular Service Area	.....
10.	Proposed Date of Bringing into Use	.....
11.	Coordinated within ICAO	YES/NO
12.	Coordination:-	
	a) Administrations having Maritime Mobile Assignments in Conformity with the Agreement from which it is Considered that Agreement should be obtained	....
	b) Administrations having Maritime Mobile Assignments in Conformity with the Agreement from which Agreement has been Obtained	....

1 - In the case of a modification, where applicable, indicate the modification by underlining, followed by the current characteristics in parentheses.

G/9/47

ANNEX B

Plan for the Maritime Mobile (Permitted) Service using Radiotelegraphy in the Frequency Band 415-435 kHz in Region 1

Coast Stations
(in Alphabetical Order of Place Names)

Station	Country	Emission	Assigned Frequency (kHz)

Note: The United Kingdom has no frequency requirements for the Maritime Mobile service in this band.

G/9/47
(cont.)

APPENDIX 1 TO ANNEX B

Assignment of Frequencies to Maritime Mobile Stations Using Radiotelegraphy in the Frequency Band 415-435 kHz (in Ascending Order of Frequency Assignment)

Assigned Frequency (kHz)	Station	Country

G/9/48

ANNEX C

Plan for the Maritime Mobile (Primary) Service Using Radiotelegraphy in the Frequency Band 435-526.5 kHz in Region 1

Digital Selective Calling (DSC)

1. Three Channels, Nos ..., ... and ... (see Appendix 3 to Annex C) are designated for common use for DSC purposes in Region 1. No Channels are designated for national DSC purposes in the Region.

Morse Telegraphy

2. The class of emission to be used for morse telegraphy by Coast and Ship stations on working frequencies shall be A1A.

3. A Ship station working to a Coast station shall use for transmission:-

a) the Ship station frequency that is paired with the frequency of the Coast station being worked (see Appendices 1 and 3 to Annex C), or;

b) with the exception of 425 kHz (see paragraph 6), one of the international Ship station working frequencies listed in No. 4237 of the Radio Regulations, viz 454 kHz, 468 kHz, 480 kHz and 512 kHz, or;

c) the frequency [461 kHz] (see paragraph 6).

4. A Coast station working to a Ship station shall normally use for transmission its morse telegraphy working frequency (see Appendices 1 and 3 to Annex C). However, if a ship uses a frequency listed in No 4237 of the Radio Regulations or the frequency [461 kHz] the Coast station may, if it so desires, use one of the common Coast station frequencies 440 kHz and 519 kHz (which have been excluded from the pairing arrangements specified in Appendix 3 to this Annex).

5. Any use of the frequency 512 kHz by Coast and Ship stations shall be in accordance with Nos 4239 to 4243 of the Radio Regulations.

6. Pending a revision of No 4237 of the Radio Regulations by the World Administrative Radio Conference planned for 1987 (see Recommendation No [G-A] of the Regional Administrative Radio Conference for Region 1, Geneva, 1985) and the entry into force of the Final Acts of that WARC, administrations should as far as practicable cease to authorise the use of 425 kHz for ship station working purposes in Region 1. Pending that revision administrations which consider that an interim replacement is necessary for the frequency 425 kHz in Region 1 may authorise their ship stations to use the frequency [461 kHz] in that Region as a ship working frequency to supplement those others mentioned in No 4237.

G/9/48 (cont.)

Narrow-Band Direct-Printing Telegraphy (NBDP)

7. Coast and Ship stations shall use paired frequencies (see Appendices 1 and 3 to Annex C).

Transition from Morse Telegraphy to NBDP

8. When an administration considers that it is no longer necessary for its coast stations to have facilities for receiving and transmitting morse telegraphy[1] it may either cancel the morse telegraphy frequencies assigned to those stations or modify the use of the frequencies to NBDP. In both cases the procedure specified in Section B of Article 4 and in Article 5 of the Agreement shall be followed.

Use of Frequencies in the Sub-Band 450-461 kHz

9. Frequencies in this sub-band shall be used as follows:-

a) 454 kHz - by ship stations in accordance with the provisions of No 4237 of the Radio Regulations;

b) [461 kHz] - by ship stations in accordance with sub-paragraph 3c) above;

c) ..... kHz, ... kHz, ... kHz, etc - by ship stations for intership purposes using either morse telegraphy or NBDP;

d) ..... kHz, ... kHz, ... kHz, etc - by coast stations to supplement their planned assignments, make broadcasts, etc. Such assignments shall not be brought into use by administrations until the procedures specified in Article 12 of the Radio Regulations have been applied.

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1. In such cases the administration shall use all available means to bring to the notice of ship operators the intended withdrawal of such facilities.

G/9/48
(cont.)

APPENDIX 1 TO ANNEX C

Plan for Coast Stations using Radiotelegraphy in the Frequency Band 435-526.5 kHz
(in Ascending Order of Place Names)

Station	Country	Emission (M=Morse Telegraphy N=NBDP)	Channel No. (see Appendix 3)
Anglesey	G	M	
Cullerecoats	G	M	
Cullercoats	G	N	
Gibraltar	GIB	M	
Hebrides	G	N	
Humber	G	M	
Ilfracombe	G	M	
Lands End	G	M	
Lands End	G	N	
Niton	G	M	
North Foreland	G	M	
North Foreland	G	N	
Norwick	G	N	
Portpatrick	G	M	
Portpatrick	G	N	
St Helena	SHN	M	
Stonehaven	G	M	
Stonehaven	G	N	
Wick	G	M	
Wick	G	N	

G/9/48
(cont.)

APPENDIX 2 TO ANNEX C

Assignment of Channels to Coast Stations using Radiotelegraphy in the Frequency Band 435-526.5 kHz (in Ascending Order of Channel Number)

Channel No. (see Appendix 3)	Station	Country

G/9/48
(cont.)

APPENDIX 3 TO ANNEX C

Pairing Arrangements for Coast (FC) and Ship (MS) Stations using Radiotelegraphy in the Frequency Band 435-526.5 kHz

Channel No.	Assigned Frequencies (kHz)		Channel No.	Assigned Frequencies (kHz)	
	FC Tx	MS Tx		FC Tx	MS Tx
1	435.5	475.5	29	510.5	461.5
2	436	476	30	511	462
3	436.5	476.5	31	511.5	462.5
4	437	477	32	512.5	463
5	437.5	477.5	33	513	463.5
6	438	478	34	513.5	464
7	438.5	478.5	35	514	464.5
8	439	479	36	514.5	465
9	439.5	479.5	37	515	465.5
10	440.5	480.5	38	515.5	466
11	441	481	39	516	466.5
12	441.5	481.5	40	516.5	467
13	442	482	41	517	467.5
14	442.5	482.5	42	519.5	468.5
15	443	483	43	520	469
16	443.5	483.5	44	520.5	469.5
17	444	484	45	521	470
18	444.5	484.5	46	521.5	470.5
19	445	485	47	522	471
20	445.5	485.5	48	522.5	471.5
21	446	486	49	523	472
22	446.5	486.5	50	523.5	472.5
23	447	487	51	524	473
24	447.5	487.5	52	524.5	473.5
25	448	488	53	525	474
26	448.5	488.5	54	525.5	474.5
27	449	489	55	526	475
28	449.5	489.5			

G/9/48
(cont.)

APPENDIX 4 TO ANNEX C

Notification of a Modification[1] to an Assignment Recorded in a Maritime Mobile Plan or the Addition of an Assignment to a Maritime Mobile Plan - Information to be Supplied in Accordance with Paragraph 10 of Article 4

1. Name of Station .....
2. Country .....
3. Geographical Coordinates (Lat & Long) .....
4. Assigned Frequency .....
5. Mode of Operation .....
6. Designation of Emission .....
7. Power Supplied to the Antenna in dBW .....
8. Characteristics of the Antenna:-
   a) Azimuth of Maximum Radiation .....
   b) Angular Width of Radiation Main Lobe .....
   c) Maximum Antenna Gain .....
9. Hours of Operation (UTC) .....
10. Service Area:-
    a) Zone Defined by Six Points, or .....
    b) Circular Service Area .....
11. Proposed Date of Bringing into Use .....
12. Coordination:-
    a) Administrations from which it is considered that agreement should be obtained .....
    b) Administrations from which agreement has been obtained .....

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1. In the case of a modification, where applicable, indicate the modification by underlining followed by the current characteristics in parentheses.

G/9/49

ANNEX D

Plan for Aeronautical Radiobeacons in the Aeronautical Radionavigation (Permitted) Service in the Frequency Band 505 - 526.5 kHz in Region 1
(in Alphabetical Order of Place Names)

Station	Country	Identification	Range (km)	Assigned Frequency (kHz)

NOTE: The United Kingdom has no frequency requirements for the Aeronautical Radionavigation service in this band.

G/9/49
(cont.)

APPENDIX 1 TO ANNEX D

Assignment of Frequencies to Aeronautical Radiobeacons in the Frequency Band 505-526.5 kHz
(in Ascending Order of Frequency Assignment)

Assigned Frequency (kHz)	Station	Country	Identification

G/9/50

ANNEX E

Plan for the Maritime Mobile Service using Radiotelegraphy in the Frequency Bands 1606.5-1625 kHz and 2142-2160 kHz in Region 1

Digital Selective Calling (DSC)

1. Eight Channels, Nos ... to ... (see Appendix 3 to Annex E) are designated for common use for DSC purposes in Region 1. No Channels are designated for national DSC purposes in the Region.

Narrow-Band Direct-Printing Telegraphy (NBDP)

2. The remaining 28 Channels are assigned for NBDP purposes on a paired basis (see Appendices 1 and 3 to Annex E).

G/9/50
(cont.)

APPENDIX 1 TO ANNEX E

NBDP Plan for Coast Stations in the Frequency Band
1606.5-1625 kHz

(In Ascending Order of Place Names)

Station	Country	Channel No. (see Appendix 3)
Akrotiri	CYP	
Ascension	ASC	
Clyde	G	
Cullercoats	G	
Gibraltar	GIB	
Hebrides	G	
Lands End	G	
Milltown	G	
North Foreland	G	
Norwick	G	
Portland	G	
Portpatrick	G	
St Eval	G	
St Helena	SHN	
Stonehaven	G	
Wick	G	

G/9/50
(cont.)

APPENDIX 2 TO ANNEX E

Assignment of Channels to Coast Stations using NBDP in the Frequency Band 1606.5 - 1625 kHz (in Ascending Order of Channel Number)

Channel No. (see Appendix 3)	Station	Country

G/9/50
(cont.)

APPENDIX 3 TO ANNEX E

Pairing Arrangements for Coast (FC) and Ship (MS) Stations using Radiotelegraphy in the Frequency Bands 1606.5 - 1625 kHz and 2142 - 2160 kHz

Channel No.	Assigned Frequencies (kHz)		Emission (D = DSC N = NBDP)
	FC Tx	MS Tx	
201	1607	2142	
202	1607.5	2142.5	
203	1608	2143	
204	1608.5	2143.5	
205	1609	2144	
206	1609.5	2144.5	
207	1610	2145	
208	1610.5	2145.5	
209	1611	2146	
210	1611.5	2146.5	
211	1612	2147	
212	1612.5	2147.5	
213	1613	2148	
214	1613.5	2148.5	
215	1614	2149	
216	1614.5	2149.5	
217	1615	2150	
218	1615.5	2150.5	
219	1616	2151	
220	1616.5	2151.5	
221	1617	2152	
222	1617.5	2152.5	
223	1618	2153	
224	1618.5	2153.5	
225	1619	2154	
226	1619.5	2154.5	
227	1620	2155	
228	1620.5	2155.5	
229	1621	2156	
230	1621.5	2156.5	
231	1622	2157	
232	1622.5	2157.5	
233	1623	2158	
234	1623.5	2158.5	
235	1624	2159	
236	1624.5	2159.5	

G/9/51

ANNEX F

Plan for the Maritime Mobile Service Using Radiotelephony in the Frequency Bands 1635-1800 kHz and 2045-2141 kHz in Region 1

General

1. Except as specified in paragraph 2 below, the class of emission to be used by stations of the maritime mobile service on frequencies in these bands shall be J3E.

2. As an exception, frequencies assigned in this Plan for radiotelephony may also be used for radiotelegraphy provided that:-

a) the bandwidth of a radiotelegraphy transmission is no greater than that assigned for single sideband radiotelephony purposes;

b) the radiotelegraphy transmissions present no greater interference potential than single sideband radiotelephony transmissions;

c) the protection from harmful interference to the reception of radiotelegraphy transmissions shall not exceed that afforded to radiotelephony transmissions.

Pairing Arrangements

3. The common Region 1 assigned frequencies 2047.4 kHz, 2050.4 kHz, 2054.4 kHz and 2057.4 kHz, are excluded from the pairing arrangements and shall continue to be used in accordance with the provisions of Nos 4358-4368 of the Radio Regulations.

4. The pairing arrangements for coast and ship stations are specified in paragraph 1 of Appendix 4 to Annex F.

5. Coast station frequencies shown in the "Arrangement of Frequencies" in paragraph 2 of Appendix 4 to Annex F shall be used as follows:-

a) for simplex purposes (ship station operation under the provisions of No 961 of the Radio Regulations), or;

b) for coast station broadcast purposes, or;

c) at the discretion of administrations, on a paired basis with frequencies assigned to ship stations in the bands listed in No MOD 4188 (Mob-83)[1] of the Radio Regulations provided that this method of operation in no way prejudices any other authorised operation in the bands in question.

---

1. The frequency bands are 1950-2045 kHz, 2194-2262.5 kHz and 3200-3340 kHz (see also Appendix 3 to Resolution No 704 (Mob-83) which specifies the recommended channelling of these bands).

G/9/51
(cont.)

APPENDIX 1 TO ANNEX F

Plan for "Paired" Coast Stations Using Radiotelephony in the Frequency Band 1635-1800 kHz

(In Alphabetical Order of Place Names)

Station	Country	Channel No. (see Appendix 4)
Anglesey	G	
Ascension	ASC	
Clyde	G	
Cullercoats	G	
Gibraltar	GIB	
Guernsey	G	
Hebrides	G	
Humber	G	
Ilfracombe	G	
Jersey	G	
Lands End	G	
Milltown	G	
Niton	G	
North Foreland	G	
Norwick	G	
Portland	G	
Portpatrick	G	
St Eval	G	
St Helena	SHN	
Stonehaven	G	
Wick	G	

G/9/51
(cont.)

APPENDIX 2 TO ANNEX F

Plan for Coast Stations Using Radiotelephony - Simplex, Broadcast and Other Methods of Working - in the Frequency Band 1635-1800 kHz
(see Annex F, paragraph 5)

(In Alphabetical Order of Place Names)

Station	Country	Method of Working (S = Simplex B = Broadcast O = Other[1])	Channel No. (see Appendix 4)
Aberdeen CG	G	S	
Ailsa Craig LSTN	G	S	
Alderney	G	S	
Ardnamurchan LSTN	G	S	
Bardsey LSTN	G	S	
Bass Rock LSTN	G	S	
Bell Rock LSTN	G	S	
Bressay LSTN	G	S	
Brixham CG	G	S	
Burra Firth	G	S	
Butt of Lewis LSTN	G	S	
Calf of Man LSTN	G	S	
Cape Wrath LSTN	G	S	
Casquets LSTN	G	S	
Clyde CG	G	S	
Coquet LSTN	G	S	
Corsewall LSTN	G	S	
Dover CG	G	S	
Dowsing LSTN	G	S	
Dudgeon LSTN	G	S	
Duncansby Head LSTN	G	S	
East Goodwin LSTN	G	S	
Eddystone LSTN	G	S	
Fair Isle LSTN	G	S	
Falls LSTN	G	S	
Falmouth CG	G	S	
Ferris Point LSTN	G	S	
Flatholm LSTN	G	S	
Guernsey	G	S	
Haisborough LSTN	G	S	
Hanois LSTN	G	S	
Hartland CG	G	S	
Helwick LSTN	G	S	
Holyhead CG	G	S	
Humber CG	G	S	
Humber LSTN	G	S	
Hyskeir LSTN	G	S	
Inchkeith LSTN	G	S	
Inner Dowsing LSTN	G	S	
Isle of Jethou LSTN	G	S	
Isle of May LSTN	G	S	

1. Precise method of working to be specified in a footnote to the Plan.

G/9/51 (cont.)

Station	Country	Method of Working (S = Simplex B = Broadcast O = Other[1])	Channel No. (see Appendix 4)
Lands End CG	G	S	
Langness LSTN	G	S	
Liverpool CG	G	S	
Longships LSTN	G	S	
Longstone LSTN	G	S	
Lundy South LSTN	G	S	
Maidens LSTN	G	S	
Mew Island LSTN	G	S	
Milford Haven CG	G	S	
Moray CG	G	S	
Muckle Flugga LSTN	G	S	
Mull of Kintyre LSTN	G	S	
Newarp LSTN	G	S	
North Goodwin LSTN	G	S	
North Ronaldsay	G	S	
Oban Depot	G	S	
Outer Gabbard LSTN	G	S	
Pentland CG	G	S	
Pentland Skerries	G	S	
Pladda LSTN	G	S	
Portland CG	G	S	
Rathlin East LSTN	G	S	
Rinns of Islay LSTN	G	S	
Royal Sovereign LSTN	G	S	
Rubha Reidh LSTN	G	S	
St Abbs LSTN	G	S	
St Gowan LSTN	G	S	
Sanda LSTN	G	S	
Scarweather LSTN	G	S	
Sevenstones LSTN	G	S	
Shetland CG	G	S	
Shoreham CG	G	S	
Skerries LSTN	G	S	
Skerryvore LSTN	G	S	
Skokholm LSTN	G	S	
Smalls LSTN	G	S	
Smiths Knoll LSTN	G	S	
South Bishop LSTN	G	S	
South Goodwin LSTN	G	S	
South Rock LSTN	G	S	
Stornoway CG	G	S	
Stroma LSTN	G	S	
Stromness	G	S	
Swansea CG	G	S	
Thames CG	G	S	
Tongue LSTN	G	S	
Turnberry LSTN	G	S	
Tyne Tees CG	G	S	
Varne LSTN	G	S	
Wolf Rock LSTN	G	S	
Yarmouth CG	G	S	

1. Precise method of working to be specified in a footnote to the Plan.

G/9/51
(cont.)

APPENDIX 3 TO ANNEX F

Assignment of Channels to Coast Stations using
Radiotelephony in the Frequency Band 1635-1800 kHz

(in Ascending Order of Channel Number)

Channel No. (see Appendix 4)	Station	Country

G/9/51
(cont.)

APPENDIX 4 TO ANNEX F

Arrangement of Frequencies for Radiotelephony in the Bands 1635 - 1800 kHz and 2045 - 2141 kHz

1. Paired Channels

Channel No.	Assigned Frequencies (kHz) FC Tx	MS Tx	Channel No.	Assigned Frequencies (kHz) FC Tx	MS Tx
240	1636.4	2060.4	254	1678.4	2102.4
241	1639.4	2063.4	255	1681.4	2105.4
242	1642.4	2066.4	256	1684.4	2108.4
243	1645.4	2069.4	257	1687.4	2111.4
244	1648.4	2072.4	258	1690.4	2114.4
245	1651.4	2075.4	259	1693.4	2117.4
246	1654.4	2078.4	260	1696.4	2120.4
247	1657.4	2081.4	261	1699.4	2123.4
248	1660.4	2084.4	262	1702.4	2126.4
249	1663.4	2087.4	263	1705.4	2129.4
250	1666.4	2090.4	264	1708.4	2132.4
251	1669.4	2093.4	265	1711.4	2135.4
252	1672.4	2096.4	266	1714.4	2138.4
253	1675.4	2099.4			

2. Other Channels - Coast Stations

Channel No.	Assigned Frequency (kHz)	Channel No.	Assigned Frequency (kHz)	Channel No.	Assigned Frequency (kHz)
267	1717.4	277	1747.4	286	1774.4
268	1720.4	278	1750.4	287	1777.4
269	1723.4	279	1753.4	288	1780.4
270	1726.4	280	1756.4	289	1783.4
271	1729.4	281	1759.4	290	1786.4
272	1732.4	282	1762.4	291	1789.4
273	1735.4	283	1765.4	292	1792.4
274	1738.4	284	1768.4	293	1795.4
275	1741.4	285	1771.4	294	1798.4
276	1744.4				

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 9-E
30 August 1984
Original : English

PLENARY MEETING

United Kingdom

PROPOSAL FOR A

REGIONAL AGREEMENT FOR REGION 1

concerning the use of Frequencies by the Maritime Mobile Service in the Bands 415 - 435 kHz, 435 - 526.5 kHz, 1606.5 - 1625 kHz, 1635 - 1800 kHz and 2045 - 2160 kHz and by the Aeronautical Radionavigation (Radiobeacon) Service in the Bands 415 - 435 kHz and 505 - 526.5 kHz

G/9/0 **Preamble**

The undersigned Delegates of the Administrations of the following countries:

meeting in Geneva for a Regional Administrative Radio Conference convened under the terms of Article 32 of the International Telecommunication Convention, Nairobi, 1982, have adopted subject to the approval of their Administrations the following provisions relating to the Maritime Mobile Service and the Aeronautical Radionavigation (Radiobeacon) Service in Region 1.

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

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ARTICLE 1

Definitions

G/9/1 1. For the purpose of this Agreement, the following terms shall have the meanings defined below:-

Union: The International Telecommunication Union;

Secretary-General: The Secretary-General of the Union;

ICAO: The International Civil Aviation Organisation;

IFRB: The International Frequency Registration Board;

CCIR: The International Radio Consultative Committee;

Convention: The International Telecommunication Convention;

Radio Regulations: The Radio Regulations which complement the Convention;

Region 1: The geographical area defined in No 393 of the Radio Regulations;

Agreement: The whole of this Agreement including its Annexes and Appendices;

Plans: The Plans forming Annexes A to F to this Agreement and their Appendices;

Contracting Member: Any Member of the Union which has approved or acceded to the Agreement;

Administration: Any governmental department or service responsible for discharging the obligations undertaken in the International Telecommunication Convention and the Regulations;

Pairing (as applied to the Plans for the Maritime Mobile service): A method of assigning two frequencies, one to be used by a Coast station for transmission when communicating with ships, the other to be assigned to the same Coast station for reception, to be used by ships for transmission when communicating with that Coast station.

ARTICLE 2

Frequency Bands

G/9/2 2. The provisions of this Agreement apply to the following frequency bands allocated under Article 8 of the Radio Regulations :

a) 415-435 kHz allocated to the Aeronautical Radionavigation Service on a primary basis and to the Maritime Mobile service on a permitted basis;

b) 435-526.5 kHz allocated to the Maritime Mobile service on a primary basis;

c) 505-526.5 kHz allocated to the Aeronautical Radionavigation service on a permitted basis;

d) 1606.5-1625 kHz, 1635-1800 kHz and 2045-2160 kHz allocated to the Maritime Mobile service on a primary basis.

ARTICLE 3

Execution of the Agreement

G/9/3 3. The Contracting Members shall adopt for their Aeronautical Radiobeacon stations operating in Region 1 in the frequency bands referred to in the Agreement the characteristics specified in the Plans at Annexes A and D and in their Appendices.

G/9/4 4. The Contracting Members shall adopt for their Maritime Mobile stations operating in Region 1 in the frequency bands referred to in the Agreement, the characteristics specified in the Plans at Annexes B, C, E and F and in their Appendices.

G/9/5 5. The Contracting Members shall not bring assignments complying with the Plans into use, modify the technical characteristics of stations specified in the Plans, or bring new stations into use, except under the conditions specified in Articles 4 and 5 of this Agreement.

ARTICLE 4

Procedure for Modifications to the Plans

SECTION A - GENERAL

G/9/6 6. When a Contracting Member proposes to make a modification to any Plan in any of the cases described below, the procedure given in this Article shall be applied before any modification is made under the provisions of Article 12 of the Radio Regulations (see Article 5 of this Agreement). Modifications to the Plans will be necessary when an administration proposes:-

a) to modify the characteristics of a frequency assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station shown in the appropriate Plan, whether or not the station has been brought into use, or;

b) to bring into use an assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station not appearing in any of the appropriate Plans, or;

c) to modify the characteristics of a frequency assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station for which the procedure in this Article has been successfully applied, whether or not the station has been brought into use, or;

d) to cancel a frequency assignment to a Maritime Mobile station or to an Aeronautical Radiobeacon station.

G/9/7 7. In the remainder of the present Article, the term "assignment in conformity with the Agreement" means any frequency assignment appearing in any of the Plans or any frequency assignment for which the procedure of this Article has been successfully applied.

SECTION B - PROCEDURE FOR THE MARITIME MOBILE SERVICE

Procedure for Modifying the Characteristics of an Assignment or the Bringing into Use of a New Assignment

G/9/8 8. Whenever an administration intends to bring into use an assignment in conformity with the Agreement it shall act in accordance with Article 5.

G/9/9 9. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall seek the agreement of all the administrations having assignments in conformity with the Agreement on the same channel or on any adjacent channel which may be affected.

G/9/10 10. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall so inform the IFRB and shall furnish the characteristics of the modification or addition using the Form at Appendix 4 to Annex C, and shall also notify to the IFRB the names of the administrations with which it considers agreement should be sought and of those with which agreement has been reached.

G/9/11 11. The IFRB shall examine the Form referred to in paragraph 10 in order to identify the administrations having frequency assignments in conformity with the Agreement which may be affected. The results

of this examination shall be sent immediately by the IFRB to the administration proposing the modification or addition to the Plan in question. The IFRB shall include the names of those administrations in the information received and shall publish the complete information in a special section of its weekly circular.

G/9/12 12. An administration which considers that it should have been included in the list of administrations whose frequency assignments may be affected shall inform the administration proposing the modification or addition to the Plan in question and at the same time it shall, giving its reasons for so doing, request the IFRB to include its name in the list.

G/9/13 13. An administration which has not notified its comments to the administration concerned and to the IFRB within a period of 90 days following the date of the weekly circular referred to in paragraph 11 shall be understood to have agreed to the proposed modification or addition.

G/9/14 14. If in seeking agreement an administration modifies its initial proposal, it shall again apply the provisions of paragraph 9 and the subsequent procedure.

G/9/15 15. If no comments have been received on expiry of the period specified in paragraph 13, or if agreement has been reached with the administrations which have made comments, the administration proposing the modification or addition shall inform the IFRB in accordance with Article 5, indicating the agreed characteristics of the assignment together with the names of the administrations with which agreement has been reached.

G/9/16 16. If no agreement is reached between the administrations concerned, the IFRB shall make any study of the matter that may be requested by one or more of those administrations; the Board shall inform them of the results of the study and shall make such recommendations as it may be able to offer for the solution of the problem.

G/9/17 17. An administration before initiating this procedure and at any stage thereof may request the assistance of the IFRB, particularly in seeking the agreement of another administration.

G/9/18 18. If after application of the procedure described in this Section the administrations concerned have been unable to reach agreement, they may resort to one of the methods for the settlement of disputes described in Article 50 of the Convention or they may agree to apply the Optional Additional Protocol to the Convention.

G/9/19 19. In all cases when notifying assignments the relevant provisions of Article 12 of the Radio Regulations shall be applied. If after following the procedure specified in this Section no agreement has been reached, the IFRB following the notification of an assignment shall record it in the Master International Frequency Register but shall place against the entry a symbol indicating that the entry has been made subject to the conditions that no harmful interference will be caused to frequency assignments in conformity with the Agreement.

SECTION C - PROCEDURE FOR THE AERONAUTICAL RADIONAVIGATION SERVICE

Procedure for Modifying the Characteristics of an Assignment or the Bringing into Use of a New Assignment

G/9/20 20. Whenever an administration intends to bring into use an assignment in conformity with the Agreement it shall act in accordance with Article 5.

G/9/21 21. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use should first co-ordinate the proposed modification or addition within the ICAO in respect of other aeronautical radiobeacons operating in the band in question.

G/9/22 22. Once such co-ordination has been effected, the administration concerned shall so inform the IFRB and shall furnish the characteristics of the modification or addition using the Form at Appendix 2 to Annex A, and shall also notify to the IFRB the names of the administrations with which it considers agreement should be sought in respect of their assignments to Maritime Mobile stations which are in conformity with the Agreement and of those administrations in that category with which agreement has been reached.

G/9/23 23. The IFRB shall examine the Form referred to in paragraph 22 in order to identify the administrations having maritime mobile assignments in conformity with the Agreement which may be affected. The results of this examination shall be sent immediately by the IFRB to the administration proposing the modification or addition to the Plan in question. The IFRB shall include the names of those administrations in the information received and shall publish the complete information in a special section of its weekly circular.

G/9/24 24. Any administration which considers that it should have been included in the list of administrations whose maritime mobile frequency assignments may be affected shall inform the

administration proposing the modification or addition to the Plan in question and at the same time it shall, giving its reasons for so doing, request the IFRB to include its name in the list.

G/9/25 25. An administration which has not notified its comments to the administration concerned and to the IFRB within a period of 90 days following the date of the weekly circular referred to in paragraph 23 shall be understood to have agreed to the proposed modification or addition.

G/9/26 26. If in seeking agreement an administration modifies its initial proposal, it shall again apply the provisions of paragraph 21 and the subsequent procedure.

G/9/27 27. If no comments have been received on expiry of the period specified in paragraph 25, or if agreement has been reached with the administrations which have made comments, the administration proposing the modification or addition shall inform the IFRB in accordance with Article 5, indicating the agreed characteristics of the assignment together with the names of the administrations with which agreement has been reached.

G/9/28 28. If after following the procedure specified in this Section no agreement is reached between the administrations concerned, the IFRB shall make any study of the matter that may be requested by one or more of those administrations; the Board shall inform them of the results of the study and shall make such recommendations as it may be able to offer for the solution of the problem.

G/9/29 29. An administration before initiating this procedure and at any stage thereof may request the assistance of the IFRB, particularly in seeking the agreement of another administration.

G/9/30 30. If after application of the procedure described in this Section the administrations concerned have been unable to reach agreement, they may resort to one of the methods for the settlement of disputes described in Article 50 of the Convention or they may agree to apply the Optional Additional Protocol to the Convention.

G/9/31 31. In all cases when notifying assignments the relevant provisions of Article 12 of the Radio Regulations shall be applied. Where no agreement has been reached, the IFRB following the notification of an assignment shall record it in the Master International Frequency Register but shall place against the entry a symbol indicating that the entry has been made subject to the condition that no harmful interference will be caused to frequency assignments in conformity with the Agreement.

SECTION D - CANCELLATION OF ASSIGNMENTS

G/9/32 32. An administration proposing to cancel a Maritime Mobile assignment or an Aeronautical Radiobeacon assignment made in conformity with the Agreement, whether or not as a result of a modification (for instance a change of frequency), shall immediately so inform the IFRB. The Board shall publish this information in a special section of the weekly circular.

SECTION E - MAINTENANCE AND PUBLICATION OF RECORDS

G/9/33 33. The IFRB shall maintain an up-to-date master copy of the Plans and their Appendices, taking account of the application of the procedure specified in this Article; to this end the IFRB shall periodically prepare recapitulative documents listing all amendments made to the Plans as a result of modifications made in accordance with the procedures of this Article, the addition of new assignments in conformity with the Agreement, and any cancellations of which the Board has been notified.

G/9/34 34. The Secretary-General shall publish an up-to-date version of each Plan in an appropriate form as and when circumstances justify and in any case every five years.

ARTICLE 5

Notification of Frequency Assignments

G/9/35 35. Whenever an administration intends to bring into use an assignment in conformity with the Agreement it shall notify the assignment to the IFRB in accordance with the provisions of Article 12 of the Radio Regulations. Any such assignment recorded in the Master Register as a result of the application of the provisions of Article 12 of the Radio Regulations, shall, in addition to a date in Column 2a or Column 2b, bear a symbol in the Remarks column.

G/9/36 36. In relations between Contracting Members all frequency assignments brought into use in conformity with the Agreement and recorded in the Master Register shall be considered to have the same status irrespective of the date or dates entered in Column 2 for such assignments.

ARTICLE 6

Special Arrangements

G/9/37 37. In addition to the procedure provided for in Article 4 of the Agreement and to facilitate their application with a view to improving the utilisation of the Plans, Contracting Members may conclude special arrangements in accordance with the relevant provisions of the Convention and of the Radio Regulations.

ARTICLE 7

Scope of Application of the Agreement

G/9/38 38. This Agreement shall bind Contracting Members in their relations with one another but shall not bind those Members with respect to non-Contracting countries.

G/9/39 39. If a Member makes reservations with regard to any provision of this Agreement, other Members shall be free to disregard that provision in their relations with the Member which has made such reservations.

ARTICLE 8

Approval of the Agreement

G/9/40 40. Members shall notify their approval of this Agreement, as promptly as possible, to the Secretary-General, who shall at once inform other Contracting Members.

ARTICLE 9

Accession to the Agreement

G/9/41 41. Any Member of the Union in Region 1 which has not signed this Agreement may accede thereto at any time. Such accession shall extend to the Plans as amended at the time of the accession and shall be made without reservation. The Secretary-General shall be notified thereof and he shall promptly inform the other Contracting Members.

ARTICLE 10

Termination of Participation in the Agreement

G/9/42 42. Any Contracting Member shall have the right at any time to terminate its participation in the Agreement by a notification sent to the Secretary-General who shall inform the other Contracting Members.

G/9/43 43. Such termination of participation shall take effect after a period of one year from the date of receipt by the Secretary-General of the said notification.

ARTICLE 11

Abrogation of the European Regional Convention for the Maritime Mobile Radio Service, Copenhagen, 1948, and the Associated Plan

G/9/44 44. The Additional Protocol to the Final Acts of the Regional Administrative Radio Conference for Region 1, Geneva, 1985, provides for the abrogation of the European Regional Convention for the Maritime Mobile Radio Service, Copenhagen, 1948, and the Associated Plan.

ARTICLE 12

Effective Date of the Agreement

G/9/45 45. The Agreement shall enter into force on [1 April 1988] at 0001 UTC.

Annexes : 6

G/9/46

ANNEX A

Plan for Aeronautical Radiobeacons in the Aeronautical Radionavigation (Primary) Service in the Frequency Band 415-435 kHz in Region 1

(in Alphabetical Order of Place Names)

Station	Country	Identification	Range (km)	Assigned Frequency (kHz)
Barton	G	BTN	47	415
Belfast Harbour	G	HB	28	420
Bembridge	G	IW	28	426
Blackpool	G	BPL	28	420
Boscombe Down	G	BD	47	430
Bournemouth	G	BNM	93	417
Brawdy	G	BY	47	427
Chiltern	G	CHT	47	415
Cranfield	G	CFD	28	433
Finningley	G	FY	47	417
Henton	G	HEN	56	421
Hethel	G	HTL	19	434
Lee on Solent	G	LS	19	432
Leuchars	G	LU	56	417
Longside	G	LNS	37	426
Mildenhall	G	MI	37	426
Newcastle	G	WZ	47	416
Nottingham	G	NOT	19	430
Oil Platform AMOCO 49/27A	G	CP	37	425
Oil Platform AMOCO 49/27D	G	UB	37	420
Oil Platform AMOCO 49/27F	G	TSF	37	430
Oil Platform Inde J	G	UJ	37	417
Oil Platform MCP 01	G	MP	56	430
Prestwick	G	PW	28	426
Pump Station 1	G	VT	37	426
Pump Station 2	G	VI	37	415
Saint Abbs	G	SAB	75	428
Shobdon	G	SH	19	426
Unst	G	UT	37	431
Walney Island	G	WL	28	423
Westcott	G	WCO	56	428
Wittering	G	WJ	56	419

Note: This Annex comprises an extract, relating to stations in the United Kingdom, of a draft plan for aeronautical radiobeacons in the band 415-435 kHz prepared by ICAO

G/9/46
(cont.)

APPENDIX 1 TO ANNEX A

Assignment of Frequencies to Aeronautical Radiobeacons
in the Frequency Band 415-435 kHz
(in Ascending Order of Frequency Assignment)

Assigned Frequency (kHz)	Station	Country	Identification
415	Barton	G	BTN
415	Chiltern	G	CHT
415	Pump Station 2	G	VI
416	Newcastle	G	WZ
417	Bournemouth	G	BNM
417	Finningley	G	FY
417	Leuchars	G	LU
417	Oil Platform Inde J	G	UJ
419	Wittering	G	WJ
420	Belfast Harbour	G	HB
420	Blackpool	G	BPL
420	Oil Platform AMOCO 49/27D	G	UB
421	Henton	G	HEN
423	Walney Island	G	WL
425	Oil Platform AMOCO 49/27A	G	CP
426	Bembridge	G	IW
426	Longside	G	LNS
426	Mildenhall	G	MI
426	Prestwick	G	PW
426	Pump Station 1	G	VT
426	Shobdon	G	SH
427	Brawdy	G	BY
428	Saint Abbs	G	SAB
428	Westcott	G	WCO
430	Boscombe Down	G	BD
430	Nottingham	G	NOT
430	Oil Platform AMOCO 49/27F	G	TSF
430	Oil Platform MCP 01	G	MP
431	Unst	G	UT
432	Lee on Solent	G	LS
433	Cranfield	G	CFD
434	Hethel	G	HTL

G/9/46
(cont.)

APPENDIX 2 TO ANNEX A

Notification of a Modification[1] to an Assignment Recorded in an Aeronautical Radiobeacon Plan or the Addition of an Assignment to an Aeronautical Radiobeacon Plan - Information to be Supplied in Accordance with Paragraph 22 of Article 4

1.	Name of Station	.....
2.	Country	.....
3.	Geographical Coordinates (Lat & Long)	.....
4.	Assigned Frequency	.....
5.	Designation of Emission	.....
6.	Power:-	
	a) Type	.....
	b) Supplied to the Antenna in dBW	.....
7.	Characteristics of the Antenna:-	
	a) Azimuth of Maximum Radiation	.....
	b) Angular Width of Radiation Main Lobe	.....
	c) Maximum Antenna Gain	.....
8.	Hours of Operation (UTC)	.....
9.	Service Area:-	
	a) Zone Defined by Six Points, or	.....
	b) Circular Service Area	.....
10.	Proposed Date of Bringing into Use	.....
11.	Coordinated within ICAO	YES/NO
12.	Coordination:-	
	a) Administrations having Maritime Mobile Assignments in Conformity with the Agreement from which it is Considered that Agreement should be obtained	....
	b) Administrations having Maritime Mobile Assignments in Conformity with the Agreement from which Agreement has been Obtained	....

1 - In the case of a modification, where applicable, indicate the modification by underlining, followed by the current characteristics in parentheses.

G/9/47

ANNEX B

Plan for the Maritime Mobile (Permitted) Service using Radiotelegraphy in the Frequency Band 415-435 kHz in Region 1

Coast Stations
(in Alphabetical Order of Place Names)

Station	Country	Emission	Assigned Frequency (kHz)

Note: The United Kingdom has no frequency requirements for the Maritime Mobile service in this band.

G/9/47
(cont.)

APPENDIX 1 TO ANNEX B

Assignment of Frequencies to Maritime Mobile Stations Using Radiotelegraphy in the Frequency Band 415-435 kHz
(in Ascending Order of Frequency Assignment)

Assigned Frequency (kHz)	Station	Country

G/9/48

ANNEX C

Plan for the Maritime Mobile (Primary) Service Using Radiotelegraphy in the Frequency Band 435-526.5 kHz in Region 1

Digital Selective Calling (DSC)

1. Three Channels, Nos ..., ... and ... (see Appendix 3 to Annex C) are designated for common use for DSC purposes in Region 1. No Channels are designated for national DSC purposes in the Region.

Morse Telegraphy

2. The class of emission to be used for morse telegraphy by Coast and Ship stations on working frequencies shall be A1A.

3. A Ship station working to a Coast station shall use for transmission:-

a) the Ship station frequency that is paired with the frequency of the Coast station being worked (see Appendices 1 and 3 to Annex C), or;

b) with the exception of 425 kHz (see paragraph 6), one of the international Ship station working frequencies listed in No. 4237 of the Radio Regulations, viz 454 kHz, 468 kHz, 480 kHz and 512 kHz, or;

c) the frequency [461 kHz] (see paragraph 6).

4. A Coast station working to a Ship station shall normally use for transmission its morse telegraphy working frequency (see Appendices 1 and 3 to Annex C). However, if a ship uses a frequency listed in No 4237 of the Radio Regulations or the frequency [461 kHz] the Coast station may, if it so desires, use one of the common Coast station frequencies 440 kHz and 519 kHz (which have been excluded from the pairing arrangements specified in Appendix 3 to this Annex).

5. Any use of the frequency 512 kHz by Coast and Ship stations shall be in accordance with Nos 4239 to 4243 of the Radio Regulations.

6. Pending a revision of No 4237 of the Radio Regulations by the World Administrative Radio Conference planned for 1987 (see Recommendation No [G-A] of the Regional Administrative Radio Conference for Region 1, Geneva, 1985) and the entry into force of the Final Acts of that WARC, administrations should as far as practicable cease to authorise the use of 425 kHz for ship station working purposes in Region 1. Pending that revision administrations which consider that an interim replacement is necessary for the frequency 425 kHz in Region 1 may authorise their ship stations to use the frequency [461 kHz] in that Region as a ship working frequency to supplement those others mentioned in No 4237.

G/9/48
(cont.)

Narrow-Band Direct-Printing Telegraphy (NBDP)

7. Coast and Ship stations shall use paired frequencies (see Appendices 1 and 3 to Annex C).

Transition from Morse Telegraphy to NBDP

8. When an administration considers that it is no longer necessary for its coast stations to have facilities for receiving and transmitting morse telegraphy[1] it may either cancel the morse telegraphy frequencies assigned to those stations or modify the use of the frequencies to NBDP. In both cases the procedure specified in Section B of Article 4 and in Article 5 of the Agreement shall be followed.

Use of Frequencies in the Sub-Band 450-461 kHz

9. Frequencies in this sub-band shall be used as follows:-

a) 454 kHz - by ship stations in accordance with the provisions of No 4237 of the Radio Regulations;

b) [461 kHz] - by ship stations in accordance with sub-paragraph 3c) above;

c) ..... kHz, ... kHz, ... kHz, etc - by ship stations for intership purposes using either morse telegraphy or NBDP;

d) ..... kHz, ... kHz, ... kHz, etc - by coast stations to supplement their planned assignments, make broadcasts, etc. Such assignments shall not be brought into use by administrations until the procedures specified in Article 12 of the Radio Regulations have been applied.

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1. In such cases the administration shall use all available means to bring to the notice of ship operators the intended withdrawal of such facilities.

G/9/48
(cont.)

APPENDIX 1 TO ANNEX C

Plan for Coast Stations using Radiotelegraphy in the Frequency Band 435-526.5 kHz
(in Ascending Order of Place Names)

Station	Country	Emission (M=Morse Telegraphy N=NBDP)	Channel No. (see Appendix 3)
Anglesey	G	M	
Cullerecoats	G	M	
Cullercoats	G	N	
Gibraltar	GIB	M	
Hebrides	G	N	
Humber	G	M	
Ilfracombe	G	M	
Lands End	G	M	
Lands End	G	N	
Niton	G	M	
North Foreland	G	M	
North Foreland	G	N	
Norwick	G	N	
Portpatrick	G	M	
Portpatrick	G	N	
St Helena	SHN	M	
Stonehaven	G	M	
Stonehaven	G	N	
Wick	G	M	
Wick	G	N	

G/9/48
(cont.)

APPENDIX 2 TO ANNEX C

Assignment of Channels to Coast Stations using Radiotelegraphy in the Frequency Band 435-526.5 kHz (in Ascending Order of Channel Number)

Channel No. (see Appendix 3)	Station	Country

G/9/48
(cont.)

APPENDIX 3 TO ANNEX C

Pairing Arrangements for Coast (FC) and Ship (MS) Stations using Radiotelegraphy in the Frequency Band 435-526.5 kHz

Channel No.	Assigned Frequencies (kHz)		Channel No.	Assigned Frequencies (kHz)	
	FC Tx	MS Tx		FC Tx	MS Tx
1	435.5	475.5	29	510.5	461.5
2	436	476	30	511	462
3	436.5	476.5	31	511.5	462.5
4	437	477	32	512.5	463
5	437.5	477.5	33	513	463.5
6	438	478	34	513.5	464
7	438.5	478.5	35	514	464.5
8	439	479	36	514.5	465
9	439.5	479.5	37	515	465.5
10	440.5	480.5	38	515.5	466
11	441	481	39	516	466.5
12	441.5	481.5	40	516.5	467
13	442	482	41	517	467.5
14	442.5	482.5	42	519.5	468.5
15	443	483	43	520	469
16	443.5	483.5	44	520.5	469.5
17	444	484	45	521	470
18	444.5	484.5	46	521.5	470.5
19	445	485	47	522	471
20	445.5	485.5	48	522.5	471.5
21	446	486	49	523	472
22	446.5	486.5	50	523.5	472.5
23	447	487	51	524	473
24	447.5	487.5	52	524.5	473.5
25	448	488	53	525	474
26	448.5	488.5	54	525.5	474.5
27	449	489	55	526	475
28	449.5	489.5			

G/9/48
(cont.)

APPENDIX 4 TO ANNEX C

Notification of a Modification[1] to an Assignment Recorded in a Maritime Mobile Plan or the Addition of an Assignment to a Maritime Mobile Plan - Information to be Supplied in Accordance with Paragraph 10 of Article 4

1. Name of Station .....
2. Country .....
3. Geographical Coordinates (Lat & Long) .....
4. Assigned Frequency .....
5. Mode of Operation .....
6. Designation of Emission .....
7. Power Supplied to the Antenna in dBW .....
8. Characteristics of the Antenna:-
   a) Azimuth of Maximum Radiation .....
   b) Angular Width of Radiation Main Lobe .....
   c) Maximum Antenna Gain .....
9. Hours of Operation (UTC) .....
10. Service Area:-
    a) Zone Defined by Six Points, or .....
    b) Circular Service Area .....
11. Proposed Date of Bringing into Use .....
12. Coordination:-
    a) Administrations from which it is considered that agreement should be obtained .....
    b) Administrations from which agreement has been obtained .....

---

1. In the case of a modification, where applicable, indicate the modification by underlining followed by the current characteristics in parentheses.

G/9/49

ANNEX D

Plan for Aeronautical Radiobeacons in the Aeronautical Radionavigation (Permitted) Service in the Frequency Band 505 - 526.5 kHz in Region 1
(in Alphabetical Order of Place Names)

Station	Country	Identification	Range (km)	Assigned Frequency (kHz)

NOTE: The United Kingdom has no frequency requirements for the Aeronautical Radionavigation service in this band.

G/9/49
(cont.)

APPENDIX 1 TO ANNEX D

Assignment of Frequencies to Aeronautical Radiobeacons in the Frequency Band 505-526.5 kHz
(in Ascending Order of Frequency Assignment)

Assigned Frequency (kHz)	Station	Country	Identification

G/9/50

ANNEX E

Plan for the Maritime Mobile Service using Radiotelegraphy in the Frequency Bands 1606.5-1625 kHz and 2142-2160 kHz in Region 1

Digital Selective Calling (DSC)

1. Eight Channels, Nos ... to ... (see Appendix 3 to Annex E) are designated for common use for DSC purposes in Region 1. No Channels are designated for national DSC purposes in the Region.

Narrow-Band Direct-Printing Telegraphy (NBDP)

2. The remaining 28 Channels are assigned for NBDP purposes on a paired basis (see Appendices 1 and 3 to Annex E).

G/9/50
(cont.)

APPENDIX 1 TO ANNEX E

NBDP Plan for Coast Stations in the Frequency Band
1606.5-1625 kHz

(In Ascending Order of Place Names)

Station	Country	Channel No. (see Appendix 3)
Akrotiri	CYP	
Ascension	ASC	
Clyde	G	
Cullercoats	G	
Gibraltar	GIB	
Hebrides	G	
Lands End	G	
Milltown	G	
North Foreland	G	
Norwick	G	
Portland	G	
Portpatrick	G	
St Eval	G	
St Helena	SHN	
Stonehaven	G	
Wick	G	

G/9/50
(cont.)

APPENDIX 2 TO ANNEX E

Assignment of Channels to Coast Stations using NBDP in the Frequency Band 1606.5 - 1625 kHz (in Ascending Order of Channel Number)

Channel No. (see Appendix 3)	Station	Country

G/9/50
(cont.)

APPENDIX 3 TO ANNEX E

Pairing Arrangements for Coast (FC) and Ship (MS) Stations using Radiotelegraphy in the Frequency Bands 1606.5 - 1625 kHz and 2142 - 2160 kHz

Channel No.	Assigned Frequencies (kHz)		Emission (D = DSC N = NBDP)
	FC Tx	MS Tx	
201	1607	2142	
202	1607.5	2142.5	
203	1608	2143	
204	1608.5	2143.5	
205	1609	2144	
206	1609.5	2144.5	
207	1610	2145	
208	1610.5	2145.5	
209	1611	2146	
210	1611.5	2146.5	
211	1612	2147	
212	1612.5	2147.5	
213	1613	2148	
214	1613.5	2148.5	
215	1614	2149	
216	1614.5	2149.5	
217	1615	2150	
218	1615.5	2150.5	
219	1616	2151	
220	1616.5	2151.5	
221	1617	2152	
222	1617.5	2152.5	
223	1618	2153	
224	1618.5	2153.5	
225	1619	2154	
226	1619.5	2154.5	
227	1620	2155	
228	1620.5	2155.5	
229	1621	2156	
230	1621.5	2156.5	
231	1622	2157	
232	1622.5	2157.5	
233	1623	2158	
234	1623.5	2158.5	
235	1624	2159	
236	1624.5	2159.5	

G/9/51

ANNEX F

Plan for the Maritime Mobile Service Using Radiotelephony in the Frequency Bands 1635-1800 kHz and 2045-2141 kHz in Region 1

General

1. Except as specified in paragraph 2 below, the class of emission to be used by stations of the maritime mobile service on frequencies in these bands shall be J3E.

2. As an exception, frequencies assigned in this Plan for radiotelephony may also be used for radiotelegraphy provided that:-

a) the bandwidth of a radiotelegraphy transmission is no greater than that assigned for single sideband radiotelephony purposes;

b) the radiotelegraphy transmissions present no greater interference potential than single sideband radiotelephony transmissions;

c) the protection from harmful interference to the reception of radiotelegraphy transmissions shall not exceed that afforded to radiotelephony transmissions.

Pairing Arrangements

3. The common Region 1 assigned frequencies 2047.4 kHz, 2050.4 kHz, 2054.4 kHz and 2057.4 kHz, are excluded from the pairing arrangements and shall continue to be used in accordance with the provisions of Nos 4358-4368 of the Radio Regulations.

4. The pairing arrangements for coast and ship stations are specified in paragraph 1 of Appendix 4 to Annex F.

5. Coast station frequencies shown in the "Arrangement of Frequencies" in paragraph 2 of Appendix 4 to Annex F shall be used as follows:-

a) for simplex purposes (ship station operation under the provisions of No 961 of the Radio Regulations), or;

b) for coast station broadcast purposes, or;

c) at the discretion of administrations, on a paired basis with frequencies assigned to ship stations in the bands listed in No MOD 4188 (Mob-83)[1] of the Radio Regulations provided that this method of operation in no way prejudices any other authorised operation in the bands in question.

---

1. The frequency bands are 1950-2045 kHz, 2194-2262.5 kHz and 3200-3340 kHz (see also Appendix 3 to Resolution No 704 (Mob-83) which specifies the recommended channelling of these bands).

G/9/51
(cont.)

APPENDIX 1 TO ANNEX F

Plan for "Paired" Coast Stations Using Radiotelephony in the Frequency Band 1635-1800 kHz

(In Alphabetical Order of Place Names)

Station	Country	Channel No. (see Appendix 4)
Anglesey	G	
Ascension	ASC	
Clyde	G	
Cullercoats	G	
Gibraltar	GIB	
Guernsey	G	
Hebrides	G	
Humber	G	
Ilfracombe	G	
Jersey	G	
Lands End	G	
Milltown	G	
Niton	G	
North Foreland	G	
Norwick	G	
Portland	G	
Portpatrick	G	
St Eval	G	
St Helena	SHN	
Stonehaven	G	
Wick	G	

G/9/51
(cont.)

APPENDIX 2 TO ANNEX F

Plan for Coast Stations Using Radiotelephony - Simplex, Broadcast and Other Methods of Working - in the Frequency Band 1635-1800 kHz
(see Annex F, paragraph 5)

(In Alphabetical Order of Place Names)

Station	Country	Method of Working (S = Simplex B = Broadcast O = Other[1])	Channel No. (see Appendix 4)
Aberdeen CG	G	S	
Ailsa Craig LSTN	G	S	
Alderney	G	S	
Ardnamurchan LSTN	G	S	
Bardsey LSTN	G	S	
Bass Rock LSTN	G	S	
Bell Rock LSTN	G	S	
Bressay LSTN	G	S	
Brixham CG	G	S	
Burra Firth	G	S	
Butt of Lewis LSTN	G	S	
Calf of Man LSTN	G	S	
Cape Wrath LSTN	G	S	
Casquets LSTN	G	S	
Clyde CG	G	S	
Coquet LSTN	G	S	
Corsewall LSTN	G	S	
Dover CG	G	S	
Dowsing LSTN	G	S	
Dudgeon LSTN	G	S	
Duncansby Head LSTN	G	S	
East Goodwin LSTN	G	S	
Eddystone LSTN	G	S	
Fair Isle LSTN	G	S	
Falls LSTN	G	S	
Falmouth CG	G	S	
Ferris Point LSTN	G	S	
Flatholm LSTN	G	S	
Guernsey	G	S	
Haisborough LSTN	G	S	
Hanois LSTN	G	S	
Hartland CG	G	S	
Helwick LSTN	G	S	
Holyhead CG	G	S	
Humber CG	G	S	
Humber LSTN	G	S	
Hyskeir LSTN	G	S	
Inchkeith LSTN	G	S	
Inner Dowsing LSTN	G	S	
Isle of Jethou LSTN	G	S	
Isle of May LSTN	G	S	

1. Precise method of working to be specified in a footnote to the Plan.

G/9/51 (cont.)

Station	Country	Method of Working (S = Simplex B = Broadcast O = Other[1])	Channel No. (see Appendix 4)
Lands End CG	G	S	
Langness LSTN	G	S	
Liverpool CG	G	S	
Longships LSTN	G	S	
Longstone LSTN	G	S	
Lundy South LSTN	G	S	
Maidens LSTN	G	S	
Mew Island LSTN	G	S	
Milford Haven CG	G	S	
Moray CG	G	S	
Muckle Flugga LSTN	G	S	
Mull of Kintyre LSTN	G	S	
Newarp LSTN	G	S	
North Goodwin LSTN	G	S	
North Ronaldsay	G	S	
Oban Depot	G	S	
Outer Gabbard LSTN	G	S	
Pentland CG	G	S	
Pentland Skerries	G	S	
Pladda LSTN	G	S	
Portland CG	G	S	
Rathlin East LSTN	G	S	
Rinns of Islay LSTN	G	S	
Royal Sovereign LSTN	G	S	
Rubha Reidh LSTN	G	S	
St Abbs LSTN	G	S	
St Gowan LSTN	G	S	
Sanda LSTN	G	S	
Scarweather LSTN	G	S	
Sevenstones LSTN	G	S	
Shetland CG	G	S	
Shoreham CG	G	S	
Skerries LSTN	G	S	
Skerryvore LSTN	G	S	
Skokholm LSTN	G	S	
Smalls LSTN	G	S	
Smiths Knoll LSTN	G	S	
South Bishop LSTN	G	S	
South Goodwin LSTN	G	S	
South Rock LSTN	G	S	
Stornoway CG	G	S	
Stroma LSTN	G	S	
Stromness	G	S	
Swansea CG	G	S	
Thames CG	G	S	
Tongue LSTN	G	S	
Turnberry LSTN	G	S	
Tyne Tees CG	G	S	
Varne LSTN	G	S	
Wolf Rock LSTN	G	S	
Yarmouth CG	G	S	

1. Precise method of working to be specified in a footnote to the Plan.

G/9/51
(cont.)

APPENDIX 3 TO ANNEX F

Assignment of Channels to Coast Stations using
Radiotelephony in the Frequency Band 1635-1800 kHz

(in Ascending Order of Channel Number)

Channel No. (see Appendix 4)	Station	Country

G/9/51
(cont.)

APPENDIX 4 TO ANNEX F

Arrangement of Frequencies for Radiotelephony in the Bands 1635 - 1800 kHz and 2045 - 2141 kHz

1. Paired Channels

Channel No.	Assigned Frequencies (kHz) FC Tx	MS Tx	Channel No.	Assigned Frequencies (kHz) FC Tx	MS Tx
240	1636.4	2060.4	254	1678.4	2102.4
241	1639.4	2063.4	255	1681.4	2105.4
242	1642.4	2066.4	256	1684.4	2108.4
243	1645.4	2069.4	257	1687.4	2111.4
244	1648.4	2072.4	258	1690.4	2114.4
245	1651.4	2075.4	259	1693.4	2117.4
246	1654.4	2078.4	260	1696.4	2120.4
247	1657.4	2081.4	261	1699.4	2123.4
248	1660.4	2084.4	262	1702.4	2126.4
249	1663.4	2087.4	263	1705.4	2129.4
250	1666.4	2090.4	264	1708.4	2132.4
251	1669.4	2093.4	265	1711.4	2135.4
252	1672.4	2096.4	266	1714.4	2138.4
253	1675.4	2099.4			

2. Other Channels - Coast Stations

Channel No.	Assigned Frequency (kHz)	Channel No.	Assigned Frequency (kHz)	Channel No.	Assigned Frequency (kHz)
267	1717.4	277	1747.4	286	1774.4
268	1720.4	278	1750.4	287	1777.4
269	1723.4	279	1753.4	288	1780.4
270	1726.4	280	1756.4	289	1783.4
271	1729.4	281	1759.4	290	1786.4
272	1732.4	282	1762.4	291	1789.4
273	1735.4	283	1765.4	292	1792.4
274	1738.4	284	1768.4	293	1795.4
275	1741.4	285	1771.4	294	1798.4
276	1744.4				

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 10-E
30 August 1984
Original : English

PLENARY MEETING

United Kingdom

PROPOSAL FOR THE WORK OF THE CONFERENCE

G/10/1

RECOMMENDATION G-A

Relating to the Termination of the Use of the Worldwide Maritime Mobile Working Frequency 425 kHz by Ship Stations

The Regional Administrative Radio Conference for Region 1, Geneva, 1985

considering

a) that the World Administrative Radio Conference, Geneva, 1979 allocated the frequency band 415-435 kHz in Region 1 to the Aeronautical Radionavigation service on a primary basis and to the Maritime Mobile service on a permitted basis;

b) that the World Administrative Radio Conference for the Mobile Services, Geneva, 1983 resolved that a Regional Administrative Radio Conference for Region 1 should be convened in 1985 to prepare frequency assignment plans for the Aeronautical Radionavigation service in the frequency bands 415-435 kHz and 505-526.5 kHz, and for the Maritime Mobile service in the frequency bands 415-435 kHz and 435-526.5 kHz;

further considering

c) that the pressure of requirements for aeronautical radiobeacons in the band 415-435 kHz in parts of Region 1 is so high as to necessitate the use of all frequencies in this band in accordance with the primary allocation to the Aeronautical Radionavigation service;

d) that this would not be practicable if the frequency 425 kHz was allowed to continue on a worldwide basis as a ship working frequency for radiotelegraphy in accordance with the permitted allocation to the Maritime Mobile service in this band and with No 4237 of the Radio Regulations;

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e) that the revision of No 4237 was not within the agenda for the Regional Administrative Radio Conference for Region 1, Geneva, 1985;

f) the need for the Aeronautical Radionavigation service in Region 1 to have full and early access to the band 415-435 kHz in accordance with the Plan prepared by this Conference;

g) that this Regional Administrative Radio Conference has adopted a frequency assignment plan for the Maritime Mobile service in the band 435-526.5 kHz which has considerably increased the number of channels assignable to ship stations for working purposes using radiotelegraphy;

resolves

1. to invite all administrations to cease to authorise the use of the frequency 425 kHz for ship working purposes in Region 1 on and from the date of coming into effect of the Plan for aeronautical radiobeacons in the band 415-435 kHz (..... 198..);

2. to invite those administrations which consider that an interim replacement is necessary for the frequency 425 kHz in Region 1 pending a revision of No 4237 of the Radio Regulations by the World Administrative Radio Conference planned for 1987, to authorise their stations to use the frequency [461 kHz] as a ship working frequency to supplement those others mentioned in No 4237;

recommends

that the World Administrative Radio Conference planned for 1987 should be authorised to review and revise No 4237 of the Radio Regulations in order to delete the frequency 425 kHz therefrom, and, if found operationally necessary, to replace it with a frequency chosen from the sub-band 450-461 kHz;

requests

the Secretary-General to bring this Recommendation to the attention of all administrations;

invites

the Administrative Council to take the necessary steps to place this Recommendation on the agenda of the World Administrative Radio Conference planned for 1987.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 11-E
13 November 1984
Original: French

PLENARY MEETING

France

TRANSMITTER POWER AND PLANNING CRITERIA FOR THE MARITIME MOBILE SERVICE IN THE BAND 1 606.5 - 2 160 kHz

Document 8/264(Corr.2) of the interim meeting of CCIR Study Group 8 gives the value of the minimum field strength as 50 μV/m (34 dB(μV/m)) for the bands 1 606.5 - 2 160 kHz. According to Figure 1 of CCIR Recommendation 368-4 a radiated power of 15 W is sufficient to obtain a range of 100 km. To reach 360 km, however, the radiated power should be 125 W, whereas at around 500 km, a 100 km variation in the range affects the power by a factor of 10. Consequently, application of the planning criteria in Document 8/264(Corr.2), whilst causing no significant difficulty in the linear part of the propagation curve, at least in relative terms, is open to interpretation in the non-linear areas. Furthermore, in the linear section of the curve the value of the radiated power might be inadequate to satisfy the requirements of the links to be established.

Document 8/264(Corr.2) recognizes that not all sources of noise are taken into account, in particular man-made noise on board ships and noise due to ionospheric propagation. In addition, the efficiency of the antenna systems on ships is lower than the efficiency generally accepted in coast stations, which may be as low as 10 to 15%.

Other factors must also be taken into account in the sharing criteria. Certain stations provide a specific service which must never be allowed to deteriorate, even if in some cases they only need to transmit during a relatively small percentage of the time.

A high level of power emitted by a station will mean risks of interference for another station. Nevertheless, frequency sharing is possible in certain cases. Use of the frequency may be random or coordinated. The amount of usage varies from case to case.

F/11/1 In conclusion, the sharing and planning criteria in Document 8/264(Corr.2) must not be applied systematically; due account should be taken of the specific operating conditions of each station, in particular:

- schedule and conditions of use of the frequency;
- volume of traffic according to the area served;
- variable traffic density in certain parts of the area served.

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 12-E
13 November 1984
Original : French

PLENARY MEETING

France

INDIVIDUAL CASES OF FREQUENCY ASSIGNMENT TO COAST STATIONS

The French Administration

I. considers

a) that the entry into force of the new frequency plan to be adopted by the RARC will :

- appreciably disturb the operation of the maritime mobile service;

- necessitate fairly costly intervention by specialized technicians to adjust the equipment of coast stations and ship stations;

b) that the RARC should strive so far as possible to limit such consequences (particularly the financial implications), even if its work of planning is thereby made more difficult;

II. proposes

that the RARC should first consider, if the administration concerned so wishes, the possibility of observing the following rules when assigning a frequency to a coast station :

F/12/1 a) the frequency previously assigned should be retained if it is in accordance with the provisions of Appendix 1 or 2 to Resolution 704 (MOB-83);

F/12/2 b) the frequency closest to that in the plan in Appendix 1 or 2 to Resolution 704 (MOB-83) should be assigned if the one previously assigned derogates from the provisions of those Appendices only by failing to conform with the 0.5 or 3-kHZ channel spacing (in the extreme case of radiotelephony, the replacement frequency would therefore not differ by more than + 1.4 kHz from the present frequency so that, in the many cases in which quartz crystal oscillators are still used, coast and ship stations would not have to replace the quartz crystal);

F/12/3 c) in applying points a) and b) above, account should be taken not only of assigned frequencies that have been entered in the Master Register but also of those that appear in the List of Coast Stations but have not been entered in the Register;

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F/12/4 III. <u>is of the opinion, however</u>

that the assignment of a frequency in accordance with the foregoing suggestion should not give the beneficiary station any additional rights (it is the Conference to define the technical and regulatory criteria governing the use of such frequencies).

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 13-E
20 November 1984
Original: French

PLENARY MEETING

France

ARRANGEMENTS REQUIRED TO AVOID HARMFUL INTERFERENCE TO THE AERONAUTICAL RADIONAVIGATION SERVICE BY EMISSIONS OF THE MARITIME MOBILE SERVICE IN THE BAND 415 - 435 kHz

The Administration of France,

1. considering

a) that the band 415 - 435 kHz is allocated on a primary basis to the aeronautical radionavigation service and on a permitted basis to the maritime mobile service in Region 1 (WARC Geneva, 1979);

b) that the band 415 - 435 kHz was previously allocated to the maritime mobile service for radiotelegraphy;

c) that as a result many frequencies in the band 415 - 435 kHz are used by Region 1 coast stations;

d) that Resolution 704 (MOB 83) decided that a plan should be established for the aeronautical radionavigation service in the band 415 - 435 kHz;

e) that the coverage areas of stations are bigger in the maritime mobile service than in the aeronautical radionavigation service, because the effective radiated power of coast stations is generally much higher than that of aeronautical radiobeacons;

f) that No. 4237 of the Radio Regulations gives ship stations five working frequencies for use on a world-wide basis (one of which is the frequency 425 kHz);

g) that ship stations retain the right to use coast stations' frequencies provided they abide by the provisions of No. 961 of the Radio Regulations;

h) that ship stations will also be able to use the frequencies mentioned in Resolution 704 (MOB 83), Appendix 1, paragraph 1 c);

i) that harmful interference to emissions of the aeronautical radionavigation service may have serious implications for the safety of life;

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2. having noted

a) that arrangements are to be made to allow the band 415 - 435 kHz to be used by the maritime mobile service (Resolution 704 (MOB 83), resolves 3);

b) that this Regional Conference is not competent to forbid the use of frequency 425 kHz by ship stations of countries in Regions 2 and 3;

3. considers, for its part

that it will have to renounce the use of frequencies in this band by its coast stations because of its maritime environment;

4. proposes

F/13/1 a) that when the frequency assignment plan for the aeronautical radionavigation service is drawn up, any danger of interference by the mobile service should be eliminated by appropriate planning, and essentially by transferring to the band 435 - 526.5 kHz the greatest possible number of frequency assignments (of those now situated between 415 and 435 kHz) to stations in the maritime mobile service;

F/13/2 b) that this Regional Conference should

- recommend the next World Administrative Conference scheduled for 1987 to revise No. 4237 of the Radio Regulations so as to delete the frequency 425 kHz or, alternatively, to replace it by a frequency in the sub-band 450 - 461 kHz (the preferred frequency being 461 kHz);

- invites

  * the Secretary-General to draw administrations' attention to this Recommendation,

  * administrations to take appropriate action to ensure that consideration of this Recommendation is placed on the agenda of the World Administrative Conference scheduled for 1987.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Addendum 3 to
Document 14-E
8 March 1985
Original: English/
French/
Spanish

COMMITTEE 5

This addendum contains the information received by the Board, in response to IFRB Circular-letter No. 554 of 8 September 1983, between the 28 February 1985 (date of establishment of Addendum 2 to Document 14) and 7 March 1985. The presentation of the Annexes is the same as that used in Document 14.

The requirements are presented according to the following categories (with symbols used for identification appearing below the IFRB Serial Number):

MOD: Modification to a requirement published in Document 14;

SUP: Suppression of a requirement published in Document 14;

ADD: Requirement received or completed after the 15 October 1984;

INCPL: Requirement for which the Board received incomplete information;

T. BØE
Chairman of Committee 5

Annexes: 5

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ANNEX 1

Explanation of the symbols included in the list in Annex 2

IFRB No.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the administration submitting the requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmittig antenna in degrees and minutes.
CL.	Class of station, FC = Coast Station.
NAT.	Nature of service.
CALL-SIGN	Call sign to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
OP-MOD	Mode of operation: simplex or duplex.
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antenna, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antenna: ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area: the geographical coordinates of the center and value of the radius; In case of a service area defined by points: the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 1
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
1611 MOD	ALB	DURRES PT RADIO 019E26 41N27	FC CP ZAD	0000-2400 DUPLEX	100HA1AAN	X 33.0 DBW	ND	019E26 41N27 200 KM	460.0000 KHZ 435.5 526.0 KHZ	
2266 MOD	ALB	VLORA PT RADIO 019E29 40N27	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	019E29 40N27 150 KM	1636.4 1798.4 KHZ	1319
2084 MOD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	000W08 35N46 1050 KM	1609.0000 KHZ 1607.0 1624.5 KHZ	
2096 MOD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	007E45 36N54 1100 KM	1614.0000 KHZ 1607.0 1624.5 KHZ	
2097 MOD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	007E45 36N54 400 KM	1623.0000 KHZ 1607.0 1624.5 KHZ	
2102 MOD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW	ND	003E18 36N40 100 KM	452.0000 KHZ 435.5 526.0 KHZ	
2112 MOD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	003E18 36N40 500 KM	1608.0000 KHZ 1607.0 1624.5 KHZ	
2113 MOD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	003E18 36N40 500 KM	1612.0000 KHZ 1607.0 1624.5 KHZ	
2114 MOD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	003E18 36N40 500 KM	1617.0000 KHZ 1607.0 1624.5 KHZ	
2115 MOD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	003E18 36N40 850 KM	1621.0000 KHZ 1607.0 1624.5 KHZ	
2116 MOD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	000W08 35N46 400 KM	1622.0000 KHZ 1607.0 1624.5 KHZ	
2117 MOD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	000W08 35N46 400 KM	1618.0000 KHZ 1607.0 1624.5 KHZ	
2118 MOD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	000W08 35N46 400 KM	1613.0000 KHZ 1697.0 1624.5 KHZ	
2119 MOD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	000W08 35N46 400 KM	520.0000 KHZ 435.5 526.0 KHZ	
2121 MOD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW	ND	000W08 35N46 100 KM	451.0000 KHZ 435.5 526.0 KHZ	
2123 MOD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	000W08 35N46 400 KM	441.0000 KHZ 435.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2127 MOD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	007E45 36N54	400 KM	1610.0000 KHZ 1607.0 1624.5 KHZ	
2129 MOD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	007E45 36N54	400 KM	514.0000 KHZ 435.5 526.0 KHZ	
2131 MOD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	007E45 36N54	100 KM	453.0000 KHZ 435.5 526.0 KHZ	
2133 MOD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	340HF1B	X 33.0 DBW	ND	007E45 36N54	400 KM	438.0000 KHZ 435.5 526.0 KHZ	
2138 MOD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	340HF1B	X 30.0 DBW	ND	001E18 36N32	300 KM	1624.0000 KHZ 1607.0 1624.5 KHZ	
2139 MOD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	001E18 36N32	300 KM	1616.0000 KHZ 1607.0 1624.5 KHZ	
2141 MOD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 SIMPLEX	100HA1A	X 30.0 DBW	ND	001E18 36N32	100 KM	453.0000 KHZ 435.5 526.0 KHZ	
2144 MOD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	001E18 36N32	300 KM	438.5000 KHZ 435.5 526.0 KHZ	
2148 MOD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	001E18 36N32	300 KM	523.0000 KHZ 435.5 526.0 KHZ	
2149 MOD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	005E05 36N45	400 KM	1615.0000 KHZ 435.5 526.0 KHZ	
2150 MOD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 DBW	ND	005E05 36N45	400 KM	1611.0000 KHZ 1607.0 1624.5 KHZ	
2151 MOD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 DBW	ND	005E05 36N45	400 KM	515.0000 KHZ 435.5 526.0 KHZ	
2154 MOD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 SIMPLEX	340HF1B	X 30.0 DBW	ND	005E05 36N45	100 KM	451.0000 KHZ 435.5 526.0 KHZ	
2155 MOD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 DBW	ND	005E05 36N45	400 KM	440.5000 KHZ 435.5 526.0 KHZ	
2164 MOD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	007E45 36N54	400 KM	1619.0000 KHZ 1607.0 1624.5 KHZ	
2168 MOD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 SIMPLEX	100HA1A	X 30.0 DBW	ND	001W52 35N06	100 KM	452.0000 KHZ 435.5 526.0 KHZ	
2179 MOD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 DBW	ND	001W52 35N06	400 KM	1607.0000 KHZ 1607.0 1624.5 KHZ	
2180 MOD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 DBW	ND	001W52 35N06	400 KM	1620.0000 KHZ 1607.0 1624.5 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2710 MOD	ALG	BENI SAF RADIO 001W24 35N11	FC 7TF	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	001W24 35N11	100 KM	1734.0000 KHZ 1734.0 1734.0 KHZ	
2711 SUP	ALG	ARZEW RADIO 000W17 35N50	FC 7TW	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	000W17 35N50	200 KM	1641.0 1641.0 KHZ	
2712 MOD	ALG	MOSTAGANEM RADIO 000E05 35N54	FC 7TM	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	000E05 35N54	100 KM	1671.0000 KHZ 1671.0 1671.0 KHZ	
2713 MOD	ALG	CHERCHELL RADIO 002E09 36N32	FC 7TH	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	002E09 36N32	100 KM	1644.0000 KHZ 1644.0 1644.0 KHZ	
2714 MOD	ALG	TIPAZA RADIO 002E27 36N33	FC 7TP	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	002E27 36N33	100 KM	1692.0000 KHZ 1692.0 1692.0 KHZ	
2715 MOD	ALG	DELLYS RADIO 003E56 36N53	FC 7TD	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	003E56 36N53	100 KM	1728.0000 KHZ 1728.0 1728.0 KHZ	
2716 MOD	ALG	AZZEFOUN RADIO 004E25 36N51	FC 7TZ	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	004E25 36N51	100 KM	1698.0000 KHZ 1698.0 1698.0 KHZ	
2717 MOD	ALG	JIJEL 005E16 36N40	FC 7TG	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	005E16 36N40	100 KM	1713.0000 KHZ 1713.0 1713.0 KHZ	
2718 MOD	ALG	COLLO RADIO 006E36 37N00	FC 7TC	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	006E36 37N00	100 KM	1737.0000 KHZ 1737.0 1737.0 KHZ	
2719 MOD	ALG	SKIKDA RADIO 006E54 36N53	FC	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	006E54 36N53	100 KM	1701.0000 KHZ 1701.0 1701.0 KHZ	
2720 MOD	ALG	EL KALA RADIO 008E27 36N53	FC 7TK	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	008E27 36N53	100 KM	1635.0000 KHZ 1636.4 1798.4 KHZ	
2721 SUP	ALG	BENI SAF RADIO 001W24 35N11	FC 7TF	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	001W24 35N11	200 KM	1656.0 1656.0 KHZ	
2722 MOD	ALG	ARZEW RADIO 000W17 35N50	FC 7TW	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	000W17 35N50	100 KM	1665.0000 KHZ 1665.0 1665.0 KHZ	
2723 SUP	ALG	MOSTAGANEM RADIO 000E05 35N54	FC 7TM	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	000E05 35N54	200 KM	1683.0 1683.0 KHZ	
2724 SUP	ALG	CHERCHELL RADIO 002E09 36N32	FC 7TH	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	002E09 36N32	200 KM	1668.0 1668.0 KHZ	
2725 SUP	ALG	TIPAZA RADIO 002E27 36N33	FC 7TP	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	002E27 36N33	200 KM	1716.0 1716.0 KHZ	
2726 SUP	ALG	DELLYS RADIO 003E56 36N53	FC 7TD	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	003E56 36N53	200 KM	1746.0 1746.0 KHZ	
2727 SUP	ALG	AZEFFOUN RADIO 004E25 36N51	FC 7TZ	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	004E25 36N51	200 KM	1773.0 1773.0 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 4
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2729 SUP	ALG	JIJEL 005E16 36N40	FC 7TG	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	005E16 36N40	200 KM	1797.0 1797.0 KHZ	
2730 SUP	ALG	COLLO RADIO 006E36 37N00	FC 7TC	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	006E36 37N00	200 KM	1782.0 1782.0 KHZ	
2732 SUP	ALG	SKIKDA RADIO 006E54 36N53	FC	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	006E54 36N53	200 KM	1752.0 1752.0 KHZ	
2733 SUP	ALG	EL KALA RADIO 008E27 36N53	FC 7TK	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	008E27 36N53	200 KM	1722.0 1722.0 KHZ	
2775 IFRB	AOE	EL AAIUN 013W18 27N10	FC CV	0000-2400	2K80J3E	X 27.0 DBW	ND	013W18 27N10	100 KM	1712.0000 KHZ 1636.4 1798.4 KHZ	
1746 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 34.7 DBW	ND	028W38 38N32	1200 KM	435.5 526.0 KHZ	1359
1747 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	028W38 38N32	750 KM	435.5 526.0 KHZ	1364
1749 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	028W38 38N32	750 KM	435.5 526.0 KHZ	1363
2218 MOD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	002E48 51N11	300 KM	1607.0 1624.5 KHZ	151
2219 MOD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	002E48 51N11	300 KM	1607.0 1624.5 KHZ	151
2223 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	004E19 51N16	300 KM	1607.0 1624.5 KHZ	151
1959 MOD	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	304HA1B	X 24.0 DBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01		1621.0000 KHZ 435.5 526.0 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 5
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
1964 MOD	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	100HA1A	X 24.0 DBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	442.5000 KHZ 435.5 526.0 KHZ	
1965 MOD	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	100HA1A	X 24.0 DBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	449.0000 KHZ 435.5 526.0 KHZ	
1968 MOD	BUL	BOURGAS RADIO 027E29 42N30	FC CO LZL	0000-2400 DUPLEX	2K80J3E	X 24.0 DBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1752.0000 KHZ 1636.4 1798.4 KHZ	
1969 MOD	BUL	BOURGAS RADIO 027E29 42N30	FC CO LZL	0000-2400 DUPLEX	100HA1A	X 24.0 DBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	515.0000 KHZ 435.5 526.0 KHZ	
1970 MOD	BUL	BOURGAS RADIO 027E29 42N30	FC CO LZL	0000-2400 DUPLEX	100HA1A	X 24.0 DBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	524.5000 KHZ 435.5 526.0 KHZ	
521 MOD	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	015W36 27N45 555 KM	435.5 526.0 KHZ	92
529 MOD	CNR E	TENERIFE RADIO 016W20 28N25	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	016W20 28N25 555 KM	435.5 526.0 KHZ	92
2773 IFRB	COM	DZAOUDZI RADIO 045E18 12S47	FC CP	0400-1700 DUPLEX	100HA1A	X 28.5 DBW	ND	045E18 12S47 500 KM	500.0000 KHZ 435.5 526.0 KHZ	
2780 IFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53 1000 KM	435.0000 KHZ 435.5 526.0 KHZ	
2781 MIFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	2K00R2B	X 27.0 DBW	ND	024W59 16N53 1000 KM	434.0000 KHZ 435.5 526.0 KHZ	
2782 MIFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	2K00R2B	X 27.0 DBW	ND	024W59 16N53 1000 KM	436.0000 KHZ 435.5 526.0 KHZ	
2783 MIFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	2K00R2B	X 30.0 DBW	ND	024W59 16N53 1000 KM	449.0000 KHZ 435.5 526.0 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 6
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2784 IFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 30.0 DBW	ND	024W59 16N53	1000 KM	450.0000 KHZ 435.5 526.0 KHZ	
2785 MIFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	2K00R2B	X 30.0 DBW	ND	024W59 16N53	1000 KM	451.0000 KHZ 435.5 526.0 KHZ	
2786 MIFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	2K00R2B	X 27.0 DBW	ND	024W59 16N53	500 KM	500.0000 KHZ 435.5 526.0 KHZ	
2787 IFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53	500 KM	500.0000 KHZ 435.5 526.0 KHZ	
2788 MIFRB	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	2K00R2B	X 27.0 DBW	ND	024W59 16N53	500 KM	500.0000 KHZ 435.5 526.0 KHZ	
2789 MIFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	2K00R2B	X 27.0 DBW	ND	023W30 14N55	1000 KM	434.0000 KHZ 435.5 526.0 KHZ	
2790 IFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	500HA1B	X 27.0 DBW	ND	023W30 14N55	1000 KM	435.0000 KHZ 435.5 526.0 KHZ	
2791 MIFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	2K00R2B	X 27.0 DBW	ND	023W30 14N55	1000 KM	436.0000 KHZ 435.5 526.0 KHZ	
2792 IFRB	CPV	PRAIA 023W30 14N55	FC CP	0000-2400 DUPLEX	100HA1A	X 24.8 DBW	ND	023W30 14N55	300 KM	447.0000 KHZ 435.5 526.0 KHZ	
2793 MIFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	2K00R2B	X 30.0 DBW	ND	023W30 14N55	1000 KM	449.0000 KHZ 435.5 526.0 KHZ	
2794 IFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	500HA1B	X 30.0 DBW	ND	023W30 14N55	1000 KM	450.0000 KHZ 435.5 526.0 KHZ	
2795 MIFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	2K00R2B	X 30.0 DBW	ND	023W30 14N55	1000 KM	451.0000 KHZ 435.5 526.0 KHZ	
2796 MIFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	2K00R2B	X 27.0 DBW	ND	023W30 14N55	500 KM	500.0000 KHZ 435.5 526.0 KHZ	
2797 IFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	500HA1B	X 27.0 DBW	ND	023W30 14N55	500 KM	500.0000 KHZ 435.5 526.0 KHZ	
2798 MIFRB	CPV	PRAIA 023W30 14N55	FC CP	1000-2000 DUPLEX	2K00R2B	X 27.0 DBW	ND	023W30 14N55	500 KM	500.0000 KHZ 435.5 526.0 KHZ	
2799 IFRB	CPV	S VICENTE 025W00 16N51	FC CO	0000-2400	100HA1A	X 30.0 DBW	ND	025W00 16N51	800 KM	447.0000 KHZ 435.5 526.0 KHZ	
908 MOD	CYP	CYPRUS RADIO 033E17 35N03	FC CP 5BA	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	033E17 35N03	500 KM	435.5 526.0 KHZ	1544

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
909 MOD	CYP	CYPRUS RADIO 033E17 35N03	FC CP	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	033E17 35N03 300 KM	1636.4 1798.4 KHZ	41
910 MOD	CYP	CYPRUS RADIO 033E17 35N03	FC CP	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	033E17 35N03 300 KM	1636.4 1798.4 KHZ	41
911 MOD	CYP	CYPRUS RADIO 033E17 35N03	FC CP	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	033E17 35N03 300 KM	1636.4 1798.4 KHZ	41
1757 MOD	D	NORDDEICH RADIO 007E12 53N38	FC CP DAN	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	435.5 526.0 KHZ	
337 MOD	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	013E37 54N35 750 KM	432.0000 KHZ 435.5 526.0 KHZ	
338 MOD	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	013E37 54N35 750 KM	522.0000 KHZ 435.5 526.0 KHZ	
343 MOD	DDR	RUEGEN 013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	2K40J3E	X 30.0 DBW	ND	013E37 54N35 1000 KM	1678.4000 KHZ 1636.4 1798.4 KHZ	
346 MOD	DDR	RUEGEN 013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	2K40J3E	X 30.0 DBW	ND	013E37 54N35 1000 KM	1681.4000 KHZ 1636.4 1798.4 KHZ	
349 MOD	DDR	RUEGEN 013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	300HF1B	X 30.0 DBW	ND	013E37 54N35 1000 KM	1717.4000 KHZ 1636.4 1798.4 KHZ	
352 MOD	DDR	RUEGEN 013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	300HF1B	X 30.0 DBW	ND	013E37 54N35 1000 KM	1720.4000 KHZ 1636.4 1798.4 KHZ	
2801 MIFRB	DJI	DJIBOUTI 043E08 11N36	FC CP	0000-2400 DUPLEX	2K00A2B	X 34.0 DBW	ND	043E08 11N36 1000 KM	500.0000 KHZ 435.5 526.0 KHZ	
2905 MOD	DJI	DJIBOUTI 043E08 11N36	FC CP	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW	ND	043E08 11N36 1000 KM	1813.0000 KHZ 1636.4 1798.4 KHZ	
457 MOD	E	CABO DE LA NAO RADIO 000E11 38N43	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	000E11 38N43 555 KM	435.5 526.0 KHZ	92

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 8
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
462 MOD	E	CABO PENAS RADIO 005W51 43N39	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	005W51 43N39	555 KM	435.5 526.0 KHZ	92
478 MOD	E	FINISTERRE RADIO 009W16 42N54	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	009W16 42N54	555 KM	435.5 526.0 KHZ	92
506 MOD	E	BAGUR RADIO 003E13 41N58	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	003E13 41N58	555 KM	435.5 526.0 KHZ	92
2802 MOD	EGY	RADIO 029E51 31N11	FC CP SUH	0000-2400 DUPLEX	500HA1A	X 37.0 DBW	ND	029E51 31N11	1000 KM	429.0000 KHZ 435.5 526.0 KHZ	
2803 MOD	EGY	RADIO 029E51 31N11	FC CP SUH	0000-2400 DUPLEX	500HA1A	X 37.0 DBW	ND	029E51 31N11	1000 KM	444.0000 KHZ 435.5 526.0 KHZ	
2804 MOD	EGY	RADIO 029E52 31N12	FC CP SUH	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	029E52 31N12	600 KM	1680.0000 KHZ 1636.4 1798.4 KHZ	
2805 MOD	EGY	RADIO 029E52 31N12	FC CP SUH	0000-2400 DUPLEX	2K80J3E	X 31.8 DBW	ND	029E52 31N12	800 KM	1680.0000 KHZ 1636.4 1798.4 KHZ	
2807 MOD	EGY	RADIO 034E17 26N06	FC CP SUK	0400-2200 DUPLEX	500HA1A	X 35.0 DBW	ND	034E17 27N06	1000 KM	429.0000 KHZ 435.5 526.0 KHZ	
2808 MOD	EGY	RADIO 034E17 27N06	FC CP SUK	0400-2200 DUPLEX	2K80J3E	X 20.0 DBW	ND	034E17 27N06	800 KM	1680.0000 KHZ 1636.4 1798.4 KHZ	
2809 SUP	EGY	GIZA 031E22 30N16	FC CP	0000-2400 DUPLEX	2K00A1B	X 34.0 DBW	ND	031E22 30N16	800 KM	438.0000 KHZ 435.5 526.0 KHZ	
2810 MOD	EGY	RADIO 033E35 28N15	FC CP SUT	0000-2400 DUPLEX	500HA1A	X 31.8 DBW	ND	033E35 28N15	800 KM	500.0000 KHZ 435.5 526.0 KHZ	
1828 MOD	F	BOULOGNE 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	001E37 50N43	800 KM	435.5265 KHZ 435.5 1624.5 KHZ	1274
1831 MOD	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	004W44 48N20	800 KM	435.5265 KHZ 435.5 1624.5 KHZ	1274
1833 MOD	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	001W10 44N39	800 KM	435.5265 KHZ 435.5 1624.5 KHZ	1274
1834 MOD	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	001W10 44N39	800 KM	425.5265 KHZ 435.5 1624.5 KHZ	1274

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LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
1835	F	MARSEILLE	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	005E21 43N19	800 KM	432.0000 KHZ	1273
MOD		005E21 43N19	FFM	DUPLEX						435.5 526.0 KHZ	
1836	F	MARSEILLE	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	005E21 43N19	800 KM	435.5265 KHZ	1274
MOD		005E21 43N19	FFM	DUPLEX						435.5 526.0 KHZ	
1837	F	MARSEILLE	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	005E21 43N19	800 KM	435.5265 KHZ	1274
MOD		005E21 43N19	FFM	DUPLEX						435.5 526.0 KHZ	
1866	F	MARSEILLE BALISAGE	FC OT	0700-1630	2K70J3EJN	X 21.7 DBW	ND	005E21 43N17	183 KM	1637.5000 KHZ	1543
MOD		005E21 43N17	FFM	SIMPLEX						1636.4 1798.4 KHZ	
1887	F	MARSEILLE	FC CP	0000-2400	2K80J3E	X 34.8 DBW	ND	005E21 43N19	400 KM		
MOD		005E21 43N19	FFM	DUPLEX						1636.4 1798.4 KHZ	
1888	F	MARSEILLE	FC CP	0000-2400	2K80J3E	X 34.8 DBW	ND	005E21 43N19	1200 KM		
SUP		005E21 43N19	FFM	DUPLEX						1636.4 1798.4 KHZ	
2065	F	ARCACHON	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	001W10 44N39	1200 KM		1289
MOD		001W10 44N39	FFC	DUPLEX						435.5 526.0 KHZ	
396	FNL	HELSINKI	FC CP	0000-2400	304HF1B	X 34.8 DBW	ND	022E57 59N50	500 KM		
MOD		022E57 59N50	OHC	DUPLEX						1607.0 1624.5 KHZ	
397	FNL	MARIEHAMN	FC CP	0000-2400	304HF1B	X 34.8 DBW	ND	019E57 60N07	500 KM		
MOD		019E57 60N07	OHM	DUPLEX						1607.0 1624.5 KHZ	
398	FNL	VAASA	FC CP	0000-2400	304HF1B	X 34.8 DBW	ND	021E09 63N19	500 KM		
MOD		021E09 63N19	OHX	DUPLEX						1607.0 1624.5 KHZ	
415	FNL	MARIEHAMN RV	FC CO	0000-2400	2K70J3E	X 37.0 DBW	ND	019E56 60N05	300 KM		
MOD		019E56 60N05		DUPLEX						1636.4 1798.4 KHZ	
2705	FNL	MARIEHAUN RV	FC CO	0000-2400	2K70J3EJN	X 37.0 DBW	ND	019E56 60N05	300 KM		
SUP		019E56 60N05		DUPLEX						1636.4 1798.4 KHZ	
58	G	ANGLESEY RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	004W18 53N24	160 KM		329
SUP		004W18 53N24	GLV	DUPLEX						435.5 1624.5 KHZ	
59	G	CULLERCOATS RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	001W28 55N04	320 KM		329
SUP		001W28 55N04	GCC	DUPLEX						435.5 1624.5 KHZ	
60	G	HUMBER RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	000E17 53N20	160 KM		329
SUP		000E17 53N20	GKZ	DUPLEX						435.5 1624.5 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 10
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
61 SUP	G	ILFRACOMBE RADIO 004W07 51N11	FC CP GIL	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	004W07 51N11	160 KM	435.5 1624.5 KHZ	329
62 SUP	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	005W40 50N07	320 KM	435.5 1624.5 KHZ	329
63 SUP	G	NITON RADIO 001W18 50N35	FC CP GNI	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	001W18 50N35	160 KM	435.5 1624.5 KHZ	329
64 SUP	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	001E25 51N22	240 KM	435.5 1624.5 KHZ	329
65 SUP	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	005W07 54N51	240 KM	435.5 1624.5 KHZ	329
66 SUP	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	002W13 56N57	240 KM	435.5 1624.5 KHZ	329
67 SUP	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	003W06 58N26	320 KM	435.5 1624.5 KHZ	329
293 SUP	G	SEVENSTONES LSTN 006W04 50N03	FC OT SEVENSTO	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 DBW	ND	006W04 50N03	150 KM	1652.5000 KHZ 1636.4 1798.4 KHZ	413
2832 MOD	GHA	TEMA 000W00 05N37	FC CP 9GX	0000-2400 SIMPLEX	2K80J3E	X 30.0 DBW	ND	000W00 05N37	600 KM	476.0000 KHZ 1636.4 1798.4 KHZ	
2888 ADD	GHA	TAKORADI 001W45 04N54	FC CP	0600-1800 SIMPLEX	2K80J3E	X 30.0 DBW	ND	001W45 04N54	600 KM	1835.0000 KHZ 1636.4 1798.4 KHZ	
51 SUP	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	005W21 36N07	320 KM	435.5 1624.5 KHZ	329
2828 MIFRB	GMB	BANJUL 016W50 13N16	FC CP	0700-1900 DUPLEX	2K00A2B	X 27.8 DBW	ND	016W50 13N16	800 KM	438.0000 KHZ 435.5 526.0 KHZ	
2811 IFRB	GNE	BASILE 008E49 03N41	FC CP	0000-2400 DUPLEX	2K50A1B	X 31.8 DBW	ND	008E49 03N41	2000 KM	500.0000 KHZ 435.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2812 IFRB	GNE	MBINI 009E38 01N34	FC CP	0000-2400 DUPLEX	2K50A1B	X 31.8 DBW	ND	009E38 01N34	2000 KM	500.0000 KHZ 435.5 526.0 KHZ	
2813 IFRB	GNE	BATA 009E44 01N49	FC CO	0000-2400 DUPLEX	2K80J3E	X 26.0 DBW	ND	009E44 01N49	500 KM	2000.0000 KHZ 1636.4 1798.4 KHZ	
2814 IFRB	GNE	BATA 009E44 01N49	FC CO	0000-2400 DUPLEX	2K80J3E	X 26.0 DBW	ND	009E44 01N49	500 KM	2000.0000 KHZ 1636.4 1798.4 KHZ	
2011 MOD	GRC	KERKYRA 019E54 39N37	FC CP SVK31	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	019E54 39N37	220 KM	435.5 526.0 KHZ	1300
2022 MOD	GRC	SPATA ATTIKIS 023E55 37N58	FC CO SXA	0000-2400 DUPLEX	300HF1BCN	X 30.0 DBW	ND	023E55 37N58	220 KM	435.5 526.0 KHZ	1300
2605 MOD	GRC	SPATA ATTIKIS 023E55 37N58	FC CO SXA	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	023E55 37N58	370 KM	2000.0000 KHZ 1636.4 1798.4 KHZ	
2606 MOD	GRC	SPATA ATTIKIS 023E55 37N58	FC CO SXA	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	023E55 37N58	370 KM	1607.0 1624.5 KHZ	
2607 MOD	GRC	MOURNIES KRITIS 024E01 35N29	FC CO SXH	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	024E01 35N29	370 KM	1636.4 1798.4 KHZ	
2608 MOD	GRC	MOURNIES KRITIS 024E01 35N29	FC CO SXH	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	024E01 35N29	370 KM	1636.4 1798.4 KHZ	
2815 IFRB	GUI	CONAKRY 013W43 09N31	FC CP	0000-2400 DUPLEX	1K70A1B	X 33.0 DBW	ND	013W43 09N31	300 KM	500.0000 KHZ 435.5 526.0 KHZ	
2816 IFRB	GUI	CONAKRY 013W43 09N31	FC CR	0000-2400 DUPLEX	2K80J3E	X 17.0 DBW	ND	029E51 31N11	70 KM	1637.5000 KHZ 1636.4 1798.4 KHZ	
2901 MIFRB	GUI	KAMSAR 015W36 11N40	FC CP	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	015W36 11N40	200 KM	2122.0000 KHZ 1636.4 1798.4 KHZ	
2902 MIFRB	GUI	KONAKRY 013W37 09N30	FC CP	0000-2400 DUPLEX	2K80J3E	X 23.0 DBW	ND	013W37 09N30	200 KM	1636.4 1798.4 KHZ	
2903 MIFRB	GUI	KONAKRI 013W37 09N30	FC CP	0000-2400 DUPLEX	1K70A2B	X 30.0 DBW	ND	013W37 09N30	300 KM	484.0000 KHZ 435.5 526.0 KHZ	
2904 MIFRB	GUI	KONAKRI 013W37 09N30	FC CR	0000-2400 DUPLEX	2K80J3E	X 17.0 DBW	ND	013W37 09N30	1700 KM	1637.5000 KHZ 1636.4 1798.4 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
431	HOL	OUDDORP	FC CP	0000-2400	280HF1BCN	X 30.0 DBW	ND	003E53 51N48	500 KM		82
MOD		003E53 51N48	PBC	DUPLEX						435.5 1624.5 KHZ	
432	HOL	DEN HELDER	FC CP	0000-2400	280HF1BCN	X 30.0 DBW	ND	004E45 52N55	500 KM		82
MOD		004E45 52N55	PBB	DUPLEX						435.5 1624.5 KHZ	
436	HOL	OUDDORP	FC CP	0000-2400	280HF1BCN	X 36.0 DBW	ND	003E53 51N48	500 KM		
MOD		003E53 51N48	PBC	DUPLEX						435.5 1624.5 KHZ	
437	HOL	DEN HELDER	FC CP	0000-2400	280HF1BCN	X 36.0 DBW	ND	004E45 52N55	500 KM		
MOD		004E45 52N55	PBB	DUPLEX						435.5 1624.5 KHZ	
445	HOL	VLISSINGEN	FC CP	0000-2400	2K80J3EJN	X 20.0 DBW	ND	003E37 51N27	180 KM	1625.9000 KHZ	
MOD		003E37 51N27	PBG	DUPLEX						1636.4 1798.4 KHZ	
447	HOL	OUDDORP	FC CP	0000-2400	2K80J3EJN	X 20.0 DBW	ND	003E53 51N48	180 KM		
MOD		003E53 51N48	PBC	DUPLEX						1636.4 1798.4 KHZ	
622	I	ANCONA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	013E28 43N36	250 KM		
MOD		013E28 43N36	IPA	DUPLEX						435.5 1624.5 KHZ	
625	I	AUGUSTA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	015E13 37N13	250 KM		
MOD		015E13 37N13	IQA	DUPLEX						435.5 1624.5 KHZ	
628	I	BARI	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	017E25 40N26	250 KM		
MOD		017E25 40N26	IPB	DUPLEX						435.5 1624.5 KHZ	
631	I	CAGLIARI	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	009E07 39N15	250 KM	524.0000 KHZ	
MOD		009E07 39N15	IDC	DUPLEX						435.5 526.0 KHZ	
633	I	GENOVA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	008E56 44N25	50 KM	516.0000 KHZ	
MOD		008E56 44N25	ICB	DUPLEX						435.5 526.0 KHZ	
634	I	GENOVA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	008E56 44N25	250 KM		
MOD		008E56 44N25	ICB	DUPLEX						435.5 1624.5 KHZ	
635	I	GENOVA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	008E56 44N25	250 KM		
MOD		008E56 44N25	ICB	DUPLEX						435.5 1624.5 KHZ	
638	I	NAPOLI	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	014E14 40N50	250 KM		
MOD		014E14 40N50	IQH	DUPLEX						435.5 1624.5 KHZ	
641	I	ROMA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	012E31 41N48	250 KM		
MOD		012E31 41N48	IAR	DUPLEX						435.5 1624.5 KHZ	

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LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
642	I	ROMA		FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	012E31 41N48	250 KM		
MOD			012E31 41N48	IAR	DUPLEX						435.5 1624.5 KHZ	
645	I	TRIESTE		FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	013E46 45N40	250 KM		
MOD			013E46 45N40	IQX	DUPLEX						435.5 1624.5 KHZ	
656	I	ANCONA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	013E28 43N36	250 KM		
MOD			013E28 43N36	IPA	DUPLEX						435.5 526.0 KHZ	
657	I	ANCONA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	013E28 43N36	250 KM		
MOD			013E28 43N36	IPA	DUPLEX						435.5 526.0 KHZ	
658	I	ANCONA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	013E28 43N36	250 KM		
MOD			013E28 43N36	IPA	DUPLEX						435.5 526.0 KHZ	
659	I	AUGUSTA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	015E13 37N13	250 KM		
MOD			015E13 37N13	IQA	DUPLEX						435.5 526.0 KHZ	
660	I	AUGUSTA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	015E13 37N13	350 KM		
MOD			015E13 37N13	IQA	DUPLEX						435.5 526.0 KHZ	
661	I	AUGUSTA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	015E13 37N13	350 KM		
MOD			015E13 37N13	IQA	DUPLEX						435.5 526.0 KHZ	
662	I	BARI		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	017E25 40N26	250 KM		
MOD			017E25 40N26	IPB	DUPLEX						435.5 526.0 KHZ	
663	I	BARI		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	017E25 40N26	250 KM		
MOD			017E25 40N26	IPB	DUPLEX						435.5 526.0 KHZ	
664	I	BARI		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	017E25 40N26	250 KM		
MOD			017E25 40N26	IPB	DUPLEX						435.5 526.0 KHZ	
665	I	CAGLIARI		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	009E07 39N15	250 KM		
MOD			009E07 39N15	IDC	DUPLEX						435.5 526.0 KHZ	
666	I	CAGLIARI		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	009E07 39N15	350 KM		
MOD			009E07 39N15	IDC	DUPLEX						435.5 526.0 KHZ	
667	I	CAGLIARI		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	009E07 39N15	250 KM		
MOD			009E07 39N15	IDC	DUPLEX						435.5 526.0 KHZ	
668	I	GENOVA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	008E56 44N25	250 KM		
MOD			008E56 44N25	ICB	DUPLEX						435.5 526.0 KHZ	
669	I	GENOVA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	008E56 44N25	250 KM		
MOD			008E56 44N25	ICB	DUPLEX						435.5 526.0 KHZ	
670	I	GENOVA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	008E56 44N25	250 KM		
MOD			008E56 44N25	ICB	DUPLEX						435.5 526.0 KHZ	
671	I	GENOVA		FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	008E56 44N25	250 KM		
MOD			008E56 44N25	ICB	DUPLEX						435.5 526.0 KHZ	

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LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
672 MOD	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	014E14 40N50 250 KM	435.5 526.0 KHZ	
673 MOD	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	014E14 40N50 250 KM	435.5 526.0 KHZ	
674 MOD	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	014E14 40N50 250 KM	435.5 526.0 KHZ	
675 MOD	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	012E31 41N48 250 KM	435.5 526.0 KHZ	
676 MOD	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	012E31 41N48 250 KM	435.5 526.0 KHZ	
677 MOD	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	012E31 41N48 250 KM	435.5 526.0 KHZ	
678 MOD	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	012E31 41N48 250 KM	435.5 526.0 KHZ	
679 MOD	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	013E46 45N40 250 KM	435.5 526.0 KHZ	
680 MOD	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	013E46 45N40 250 KM	435.5 526.0 KHZ	
681 MOD	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	013E46 45N40 250 KM	435.5 526.0 KHZ	
692 MOD	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	015E13 37N13 600 KM	1607.0 1624.5 KHZ	
700 MOD	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	012E34 37N38 600 KM	1607.0 1624.5 KHZ	
710 MOD	I	ROMA 012E22 41N59	FC CO IDR	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	012E22 41N59 220 KM	1636.4 1798.4 KHZ	
712 MOD	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	017E25 40N26 220 KM	1636.4 1798.4 KHZ	
713 MOD	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	017E25 40N26 220 KM	1636.4 1798.4 KHZ	
714 MOD	I	LA MADDALENA 009E20 41N13	FC CO ICM	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	009E20 41N13 220 KM	1636.4 1798.4 KHZ	
715 MOD	I	LA SPEZIA 009E43 44N06	FC CO ICS	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	009E43 44N06 220 KM	1636.4 1798.4 KHZ	
716 MOD	I	LA SPEZIA 009E43 44N06	FC CO ICS	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	009E43 44N06 220 KM	1636.4 1798.4 KHZ	

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LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
717 MOD	I	NAPOLI 014E14 40N42	FC CO ICN	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	014E14 40N42	220 KM	1636.4 1798.4 KHZ	
718 MOD	I	PALOMBARA 015E08 37N10	FC CO IGJ	0000-2400 DUPLEX	2K80J3E	X 27.0 DBW	ND	015E08 37N10	220 KM	1636.4 1798.4 KHZ	
719 MOD	I	ANCONA RADIO 013E28 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	013E28 43N36	200 KM	1636.4 1798.4 KHZ	
721 MOD	I	ANCONA RADIO 013E28 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	013E28 43N36	200 KM	1636.4 1798.4 KHZ	
723 MOD	I	ANCONA RADIO 013E28 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	013E28 43N36	200 KM	1636.4 1798.4 KHZ	
729 MOD	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	015E13 37N13	200 KM	1636.4 1798.4 KHZ	
736 MOD	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	016E59 41N05	200 KM	2577.4000 KHZ 1636.4 1798.4 KHZ	
737 MOD	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	016E59 41N05	200 KM	1636.4 1798.4 KHZ	
743 MOD	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	009E07 39N15	200 KM	1636.4 1798.4 KHZ	
746 MOD	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	009E07 39N15	200 KM	1636.4 1798.4 KHZ	
759 MOD	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	008E56 44N25	200 KM	1636.4 1798.4 KHZ	
761 MOD	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	008E56 44N25	200 KM	1636.4 1798.4 KHZ	
766 MOD	I	LAMPEDUSA RADIO 012E36 35N30	FC CP IQN	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	012E36 35N30	200 KM	1739.4000 KHZ 1636.4 1798.4 KHZ	
767 MOD	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	010E11 43N29	200 KM	1636.4 1798.4 KHZ	
769 MOD	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	010E11 43N29	200 KM	1636.4 1798.4 KHZ	
771 MOD	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	010E11 43N29	200 KM	1636.4 1798.4 KHZ	
778 MOD	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	012E34 37N38	200 KM	2209.4000 KHZ 1636.4 1798.4 KHZ	
785 MOD	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	015E33 38N11	200 KM	1636.4 1798.4 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
788	I	NAPOLI RADIO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	014E14 40N50	200 KM	1633.4000 KHZ	
MOD		014E14 40N50	IQH	DUPLEX						1636.4 1798.4 KHZ	
803	I	PORTO TORRES RADIO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	008E23 40N50	200 KM		
MOD		008E23 40N50	IZN	DUPLEX						1636.4 1798.4 KHZ	
805	I	S BENEDETTO TRONTO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	013E52 42N57	200 KM		
MOD		013E52 42N57	IQP	DUPLEX						1636.4 1798.4 KHZ	
807	I	S BENEDETTO TRONTO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	013E52 42N57	200 KM		
MOD		013E52 42N57	IQP	DUPLEX						1636.4 1798.4 KHZ	
809	I	S BENEDETTO TRONTO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	013E52 42N57	200 KM		
MOD		013E52 42N57	IQP	DUPLEX						1636.4 1798.4 KHZ	
812	I	TRAPANI RADIO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	012E30 38N01	200 KM	1736.4000 KHZ	
MOD		012E30 38N01	IQM	DUPLEX						1636.4 1798.4 KHZ	
830	I	TRIESTE RADIO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	013E46 45N40	200 KM	2212.4000 KHZ	
MOD		013E46 45N40	IQX	DUPLEX						1636.4 1798.4 KHZ	
835	I	VENEZIA RADIO	FC CP	0000-2400	2K80J3E	X 33.0 DBW	ND	012E21 45N26	200 KM		
MOD		012E21 45N26	IPN	DUPLEX						1636.4 1798.4 KHZ	
2539	I	MAZARA VALLO	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	012E34 37N38	350 KM	500.0000 KHZ	
MOD		012E34 37N38	IQQ	DUPLEX						435.5 526.0 KHZ	
2541	I	MAZARA VALLO	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	012E34 37N38	250 KM	500.0000 KHZ	
MOD		012E34 37N38	IQQ	DUPLEX						435.5 526.0 KHZ	
573	IRL	HAULBOWLINE	FC CO	0000-2400	300HF1B	X 30.0 DBW	ND	008W18 51N50	500 KM	2135.0000 KHZ	
MOD		008W18 51N50	EIL	DUPLEX						1607.0 1624.5 KHZ	
579	IRL	MALIN HEAD	FC CP	0000-2400	300HF1B	X 30.0 DBW	ND	007W21 55N22	500 KM	1618.0000 KHZ	
MOD		007W21 55N22	EJM	DUPLEX						1607.0 1624.5 KHZ	
884	IRQ	BASRAH	FC CR	0000-2400	276HF1BCN	X 30.0 DBW	ND	025E00 30N00 080E00 00S01		1610.0000 KHZ	
MOD		047E47 30N33	YIR	DUPLEX						1607.0 1624.5 KHZ	
886	IRQ	BASRAH	FC CR	0000-2400	276HF1BCN	X 30.0 DBW	ND	025E00 30N00 080E00 00S01		1611.0000 KHZ	
MOD		047E47 30N33	YIR	DUPLEX						1607.0 1624.5 KHZ	
887	IRQ	BASRAH	FC CR	0000-2400	276HF1BCN	X 30.0 DBW	ND	025E00 30N00 080E00 00S01		1615.0000 KHZ	
MOD		047E47 30N33	YIR	DUPLEX						1607.0 1624.5 KHZ	

STATION COTIERE D'EMISSION . * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 17
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
888	IRQ	BASRAH	FC CR	0000-2400	276HF1BCN	X 30.0 DBW	ND	025E00 30N00 080E00 00S01	1618.0000 KHZ	
MOD		047E47 30N33	YIR	DUPLEX					1607.0 1624.5 KHZ	
889	IRQ	BASRAH	FC CR	0000-2400	276HF1BCN	X 30.0 DBW	ND	025E00 30N00 080E00 00S01	1620.0000 KHZ	
MOD		047E47 30N33	YIR	DUPLEX					1607.0 1624.5 KHZ	
2910	IRQ	BASRAH	FC CV	0000-2400	100HA1A	X 30.0 DBW	ND	047E47 30N33 400 KM	436.0000 KHZ	
ADD		047E47 30N33	YIM						435.5 526.0 KHZ	
2911	IRQ	BASRAH	FC CV	0000-2400	100HA1A	X 30.0 DBW	ND	047E47 30N33 400 KM	488.0000 KHZ	
ADD		047E47 30N33	YIR						435.5 526.0 KHZ	
2912	IRQ	FAO	FC CV	0000-2400	100HA1A	X 30.0 DBW	ND	048E29 29N58 400 KM	461.0000 KHZ	
ADD		048E29 29N58	YIR						435.5 526.0 KHZ	
2913	IRQ	BASRAH	FC CV	0000-2400	100HA1A	X 30.0 DBW	ND	048E29 29N58 400 KM	461.5000 KHZ	
ADD		048E29 29N58	YIS						435.5 526.0 KHZ	
2914	IRQ	BASRAH	FC CV	0000-2400	100HA1A	X 30.0 DBW	ND	047E47 30N33 400 KM	440.0000 KHZ	
ADD		047E47 30N33	YIR						435.5 526.0 KHZ	
2915	IRQ	FAO	FC CV	0000-2400	100HA1A	X 30.0 DBW	ND	048E29 29N58 400 KM	440.0000 KHZ	
ADD		048E29 29N58	YIR						435.5 526.0 KHZ	
2916	IRQ	BASRAH	FC CV	0000-2400	100HA1A	X 30.0 DBW	ND	047E47 30N33 400 KM	446.0000 KHZ	
ADD		047E47 30N33	YIR						435.5 526.0 KHZ	
2882	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AAN	X 34.0 DBW	ND	039E34 03S58 1500 KM		
MIFRB		039E34 03S58		DUPLEX					450.0 450.0 KHZ	
2883	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AAN	X 34.0 DBW	ND	039E34 03S58 1500 KM		
MIFRB		039E34 03S58		DUPLEX					526.0 526.0 KHZ	
2884	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AAN	X 34.0 DBW	ND	039E34 03S58 1500 KM		
MIFRB		039E34 03S58		DUPLEX					1608.0 1608.0 KHZ	
2885	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AAN	X 34.0 DBW	ND	039E34 03S58 1500 KM		
MIFRB		039E34 03S58		DUPLEX					1612.0 1612.0 KHZ	
2886	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AAN	X 34.0 DBW	ND	039E34 03S58 1500 KM		
MIFRB		039E34 03S58		DUPLEX					1616.0 1616.0 KHZ	
2887	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AAN	X 34.0 DBW	ND	039E34 03S58 1500 KM		
MIFRB		039E34 03S58		DUPLEX					1620.0 1620.0 KHZ	
2836	LBN	BEYROUTH KHALD	FC CP	0400-2200	100HA1A	X 34.0 DBW	ND	035E29 33N48 500 KM		
IFRB		035E29 33N48		DUPLEX					524.0 524.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2838 IFRB	LBN	BEYROUTH KHALD 035E29 33N48	FC CP	0000-2400 DUPLEX	2K80J3E	X 24.8 DBW	ND	035E29 33N48 400 KM	1694.0 1694.0 KHZ	
2839 IFRB	LBR	GR BASSA 010W21 06N07	FC CP	0800-2300 DUPLEX	100HA1A	X 34.8 DBW	ND	010W21 06N07 400 KM	500.0 500.0 KHZ	
2846 IFRB	LBR	HARPER C PALMA 007W44 04N22	FC CP	0800-2300 DUPLEX	100HA1A	X 34.8 DBW	ND	007W44 04N22 400 KM	500.0 500.0 KHZ	
2852 IFRB	LBR	HARPER C PALMA 007W44 04N22	FC CP	0800-2300 DUPLEX	100HA1A	X 30.0 DBW	ND	007W44 04N22 400 KM	524.0 524.0 KHZ	
2853 MIFRB	LBR	MONROVIA 010W48 06N18	FC CP	0800-2300	100HA1A	X 34.8 DBW	ND	010W48 06N18 400 KM	500.0 500.0 KHZ	
2837 IFRB	LBY	TOBRUK 023E59 32N02	FC CV	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	023E59 32N02 400 KM	435.5 1624.5 KHZ	
2890 ADD	LBY	TRIPOLI 013E11 32N54	FC CP 5AT	0000-2400 DUPLEX	100HA1AAN	X 37.0 DBW	ND	013E11 32N54 700 KM	476.0000 KHZ 435.5 526.0 KHZ	
2891 ADD	LBY	TRIPOLI 013E11 32N54	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 DBW	ND	013E11 32N54 300 KM	2197.0000 KHZ 1636.4 1798.4 KHZ	
2892 ADD	LBY	BENGHAZI 020E04 32N07	FC CP 5AB	0000-2400 DUPLEX	100HA1AAN	X 37.0 DBW	ND	020E04 32N07 700 KM	465.0000 KHZ 435.5 526.0 KHZ	
2893 ADD	LBY	BENGHAZI 020E04 32N07	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 DBW	ND	020E04 32N07 300 KM	2197.0000 KHZ 1636.4 1798.4 KHZ	
2894 ADD	LBY	TOBRUK 023E59 32N02	FC CV	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	023E59 32N02 700 KM	420.0000 KHZ 435.5 526.0 KHZ	
2895 ADD	LBY	TOBRUK 023E59 32N02	FC CP 5AZ	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	023E59 32N02 500 KM	2150.0000 KHZ 1636.4 1798.4 KHZ	
2896 ADD	LBY	TOBRUK 023E59 32N02	FC CP 5AZ	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	023E59 32N02 500 KM	2145.0000 KHZ 1636.4 1798.4 KHZ	
2917 ADD	LBY	TRIPOLI RADIO 013E11 32N54	FC CP 5AT	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	013E11 32N54 450 KM	2197.0000 KHZ 1636.4 1798.4 KHZ	
2918 ADD	LBY	TOBRUK RADIO 023E59 32N02	FC CV 5AZ	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	023E59 32N02 200 KM	2150.0000 KHZ 1636.4 1798.4 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2919 ADD	LBY	TRIPOLI RADIO 013E11 32N54	FC CP 5AT	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	013E11 32N54 450 KM	476.0000 KHZ 446.0 KHZ	
2920 ADD	LBY	TRIPOLI RADIO 013E11 32N54	FC CV 5AJ	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	013E11 32N54 250 KM	441.0000 KHZ KHZ	
2921 ADD	LBY	BENGHAZI RADIO 020E04 32N07	FC CP 5AB	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	020E04 32N07 450 KM	476.0000 KHZ 465.0 KHZ	
2922 ADD	LBY	BENGHAZI PORT 020E04 32N03	FC CV	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	020E04 32N03 300 KM	470.0000 KHZ KHZ	
2923 ADD	LBY	BENGHAZI RADIO 020E04 32N07	FC CP 5AB	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	020E04 32N07 450 KM	2197.0000 KHZ 1636.4 1798.4 KHZ	
1592 MOD	MDG	ANTSERANANA 049E17 12S17	FC CP 5RL	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW	ND	049E17 12S17 500 KM	447.0000 KHZ 435.5 526.0 KHZ	
531 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP 9HD	0000-2400 DUPLEX	2K80J3EJN	X 37.0 DBW	ND	014E24 35N52 1000 KM	1734.0000 KHZ 1636.4 1798.4 KHZ	
532 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP 9HD	0000-2400 DUPLEX	2K80J3EJN	X 37.0 DBW	ND	014E24 35N52 1000 KM	1692.0000 KHZ 1636.4 1798.4 KHZ	
533 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP 9HD	0000-2400 DUPLEX	2K80J3EJN	X 37.0 DBW	ND	014E24 35N52 1000 KM	1659.0000 KHZ 1636.4 1798.4 KHZ	
534 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP 9HD	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	014E24 35N52 1000 KM	1614.5000 KHZ 1607.0 1624.5 KHZ	77
535 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP 9HD	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	014E24 35N52 1000 KM	1621.0000 KHZ 1607.0 1624.5 KHZ	78
1587 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP 9HD	0000-2400 DUPLEX	100HA1AAN	X 34.8 DBW	ND	014E24 35N52 1000 KM	448.0000 KHZ 435.5 526.0 KHZ	
1588 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP 9HD	0000-2400 DUPLEX	100HA1AAN	X 34.8 DBW	ND	014E24 35N52 1000 KM	515.0000 KHZ 435.5 526.0 KHZ	
1589 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP	0000-2400 DUPLEX	304HF1BCN	X 34.8 DBW	ND	014E24 35N52 1000 KM	444.5000 KHZ 435.5 526.0 KHZ	78
1590 MOD	MLT	MALTA RADIO 014E24 35N52	FC CP	0000-2400 DUPLEX	304HF1BCN	X 34.8 DBW	ND	014E24 35N52 1000 KM	516.5000 KHZ 435.5 526.0 KHZ	77

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LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2419 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	2K80J3EJN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1758.0000 KHZ 1636.4 1798.4 KHZ	
2420 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1746.0000 KHZ 1607.0 1624.5 KHZ	77
2421 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	2K80J3EJN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1644.0000 KHZ 1636.4 1798.4 KHZ	
2422 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	2K80J3EJN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1794.0000 KHZ 1636.4 1798.4 KHZ	
2423 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1614.0000 KHZ 1607.0 1624.5 KHZ	78
2424 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	100HA1AAN	X 34.8 DBW	ND	014E32 35N49	1000 KM	449.5000 KHZ 435.5 526.0 KHZ	
2425 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	100HA1AAN	X 34.8 DBW	ND	014E32 35N49	1000 KM	510.5000 KHZ 435.5 526.0 KHZ	
2426 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	304HF1BCN	X 34.8 DBW	ND	014E32 35N49	1000 KM	487.0000 KHZ 435.5 526.0 KHZ	77
2427 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 DUPLEX	304HF1BCN	X 34.8 DBW	ND	014E32 35N49	1000 KM	421.5000 KHZ 435.5 526.0 KHZ	78
2897 MIFRB	MTN	NOUADHIBOU RADIO 017W03 20N54	FC CP 5TA	0800-1800 DUPLEX	2K80J3E	X 26.0 DBW	ND	017W03 20N54	600 KM	2000.0000 KHZ 1636.4 1798.4 KHZ	
2898 MIFRB	MTN	NOUADHIBOU RADIO 017W03 20N54	FC CP 5TA	0800-1800 DUPLEX	304HF1B	X 26.0 DBW	ND	017W03 20N54	600 KM	500.0000 KHZ 435.5 526.0 KHZ	
2899 MIFRB	MTN	NOUAKCHOTT RADIO 015W58 18N06	FC CP	0000-2400 DUPLEX	2K80J3E	X 26.0 DBW	ND	015W58 18N06	600 KM	2000.0000 KHZ 1636.4 1798.4 KHZ	
2900 MIFRB	MTN	NOUAKCHOTT RADIO 015W58 18N06	FC CP	0000-2400 DUPLEX	304HF1B	X 26.0 DBW	ND	015W58 18N06	600 KM	500.0000 KHZ 435.5 526.0 KHZ	
1812 MOD	MYT F	DZAOUDZI 045E17 12S48	FC CP FF	0000-2400 DUPLEX	304HF1B	X 31.5 DBW	ND	045E17 12S48	800 KM	435.5265 KHZ 1607.0 1624.5 KHZ	1289
1813 MOD	MYT F	DZAOUDZI 045E17 12S48	FC CP FF	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	045E17 12S48	400 KM	435.5265 KHZ 435.5 1624.5 KHZ	1274

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LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2829 IFRB	NIG	LAGOS 003E27 06N27	FC CP	0600-2400 DUPLEX	2K00A1B	X 30.0 DBW	ND	003E27 06N27 800 KM	447.0 447.0 KHZ	
2831 IFRB	NIG	PT HARCOURT 007E01 04N51	FC OT	0500-1700 DUPLEX	100HA1A	X 30.0 DBW	ND	007E01 04N51 480 KM	522.0 522.0 KHZ	
2835 IFRB	NIG	BURUTU 005E30 05N21	FC CV	0000-2400 DUPLEX	2K80J3E	X 13.0 DBW	ND	005E30 05N21 50 KM	1659.0 1659.0 KHZ	
2872 IFRB	NMB	LUDERITZ 015E04 26S38	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38 400 KM	1711.4 1711.4 KHZ	
	AFS									
2873 IFRB	NMB	LUDERITZ 015E04 26S38	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38 400 KM	1701.4 1701.4 KHZ	
	AFS									
2874 IFRB	NMB	LUDERITZ 015E04 26S38	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38 400 KM	1751.4 1751.4 KHZ	
	AFS									
2875 IFRB	NMB	LUDERITZ 015E04 26S38	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38 400 KM	1766.4 1766.4 KHZ	
	AFS									
1663 SUP	NOR	SVALBARD 013E38 78N04	FC CP LGS	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	013E38 78N04 370 KM	438.0000 KHZ 435.5 526.0 KHZ	
1674 MOD	NOR	SVALBARD 013E38 78N04	FC CP LJN	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	013E38 78N04 370 KM	487.0000 KHZ 435.5 526.0 KHZ	
2245 MOD	OMA	SALALAH 054E06 17N01	FC CO A4M4	0000-2400 DUPLEX	3K00J3E	X 33.0 DBW	ND	054E06 17N01 400 KM	1657.4000 KHZ 1636.4 1798.4 KHZ	1545
2246 MOD	OMA	MUSSANDAM 056E21 26N22	FC CO A4N	0000-2400 SIMPLEX	3K00J3E	X 33.0 DBW	ND	056E21 26N22 400 KM	1693.4000 KHZ 1636.4 1798.4 KHZ	
2247 MOD	OMA	RAYSUT 054E00 16N57	FC CO A4Q	0000-2400 SIMPLEX	3K00J3E	X 33.0 DBW	ND	054E00 16N57 400 KM	1715.4000 KHZ 1636.4 1798.4 KHZ	

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LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2248	OMA	MUSCAT		FC CO	0000-2400	3K00J3E	X 33.0 DBW	ND	058E21 26N22 400 KM	1723.4000 KHZ	
MOD			058E36 23N37	A4K	SIMPLEX					1636.4 1798.4 KHZ	
2249	OMA	WUDHAM		FC CO	0000-2400	3K00J3E	X 33.0 DBW	ND	057E33 23N49 400 KM	1750.4000 KHZ	
MOD			057E33 23N49	A4KA	SIMPLEX					1636.4 1798.4 KHZ	
2250	OMA	SUR		FC CO	0000-2400	3K00J3E	X 33.0 DBW	ND	059E28 22N32 400 KM	1768.4000 KHZ	
MOD			059E28 22N32	A4NA	SIMPLEX					1636.4 1798.4 KHZ	
2251	OMA	MUSCAT		FC CO	0000-2400	3K00J3E	X 33.0 DBW	ND	058E30 23N37 400 KM	1639.4000 KHZ	
MOD			058E30 23N37	A4M2	DUPLEX					1636.4 1798.4 KHZ	
2371	OMA	SALALAH		FC CP	0000-2400	304HF1BCN	X 33.0 DBW	ND	054E06 17N01 400 KM	449.0000 KHZ	
MOD			054E06 17N01	SL	DUPLEX					435.5 526.0 KHZ	
2372	OMA	MUSCAT		FC CP	0000-2400	304HF1BCN	X 33.0 DBW	ND	058E30 23N37 400 KM	436.0000 KHZ	
MOD			058E30 23N37	MS	DUPLEX					435.5 526.0 KHZ	
2373	OMA	MUSCAT		FC CP	0000-2400	304HF1BCN	X 33.0 DBW	ND	058E30 23N37 400 KM	525.0000 KHZ	
MOD			058E30 23N37	MCT	DUPLEX					435.5 526.0 KHZ	
2728	OMA	MUSCAT		FC CR	0000-2400	304HF1BCN	X 33.0 DBW	ND	058E30 23N37 400 KM		
MOD			058E30 23N37	A4M10	DUPLEX					435.5 1624.5 KHZ	
2731	OMA	SALALAH		FC CR	0000-2400	304HF1BCN	X 33.0 DBW	ND	054E06 17N01 400 KM		
MOD			054E06 17N01	A4M12	DUPLEX					435.5 1624.5 KHZ	
2908	OMA	MUSCAT		FC CR	0000-2400	304HF1BCN	X 33.0 DBW	ND	058E30 23N37 400 KM		
MOD			058E30 23N37	A4M11	DUPLEX					435.5 1624.5 KHZ	
2909	OMA	SALALAH		FC CR	0000-2400	304HF1BCN	X 33.0 DBW	ND	054E06 17N01 400 KM		
MOD			054E06 17N01	A4M13	DUPLEX					435.5 1624.5 KHZ	
2306	POL	HEL		FC CV	0000-2400	2K70J3EJN	X 25.0 DBW	ND	018E48 54N36 350 KM	1669.4000 KHZ	
MOD			018E48 54N36		DUPLEX					1636.4 1798.4 KHZ	
2311	POL	KOLOBRZEG		FC CV	0000-2400	2K70J3EJN	X 25.0 DBW	ND	015E34 54N11 350 KM	1720.4000 KHZ	
MOD			015E34 54N11		DUPLEX					1636.4 1798.4 KHZ	
2312	POL	KOLOBRZEG		FC CV	0000-2400	2K70J3EJN	X 25.0 DBW	ND	015E33 54N10 350 KM	1690.4000 KHZ	
MOD			015E33 54N10		DUPLEX					1636.4 1798.4 KHZ	
2313	POL	KRYNICA MORSKA		FC OT	0000-2400	400HF1BCN	X 30.0 DBW	ND	019E26 54N23 600 KM	1613.5000 KHZ	
MOD			019E26 54N23		DUPLEX					1607.0 1624.5 KHZ	
2315	POL	LAZY		FC OT	0000-2400	400HF1BCN	X 30.0 DBW	ND	016E12 54N18 600 KM	1621.0000 KHZ	
MOD			016E12 54N18		DUPLEX					1607.0 1624.5 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2317 MOD	POL	LEBA 017E32 54N44	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 DBW	ND	017E32 54N44	350 KM	1648.4000 KHZ 1636.4 1798.4 KHZ	
2319 MOD	POL	MIEDZYWODZIE 014E42 54N01	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 DBW	ND	014E42 54N01	600 KM	1623.5000 KHZ 1607.0 1624.5 KHZ	
2324 MOD	POL	POBIEROWO 014E54 54N04	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 DBW	ND	014E54 54N04	800 KM	1612.0000 KHZ 1607.0 1624.5 KHZ	
2326 MOD	POL	SARBINOWO 015E57 54N16	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 DBW	ND	015E57 54N16	600 KM	1618.0000 KHZ 1607.0 1624.5 KHZ	
2328 MOD	POL	SOBIESZEWO 018E51 54N21	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 DBW	ND	018E51 54N21	600 KM	1615.0000 KHZ 1607.0 1624.5 KHZ	
2330 MOD	POL	SUCHACZ 019E28 54N17	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 DBW	ND	019E28 54N17	600 KM	1619.0000 KHZ 1607.0 1624.5 KHZ	
2332 MOD	POL	SWARZEWO 018E24 54N46	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 DBW	ND	018E24 54N46	600 KM	1608.0000 KHZ 1607.0 1624.5 KHZ	
2334 MOD	POL	SWINOUJSCIE 014E15 53N52	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 DBW	ND	014E15 53N52	600 KM	1616.5000 KHZ 1607.0 1624.5 KHZ	
2343 MOD	POL	USTKA 016E52 54N34	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 DBW	ND	016E52 54N34	350 KM	1696.4000 KHZ 1636.4 1798.4 KHZ	
2344 MOD	POL	USTKA 016E52 54N34	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 DBW	ND	016E52 54N34	350 KM	1726.4000 KHZ 1636.4 1798.4 KHZ	
1816 MOD	REU F	S DENIS 055E36 20S54	FC CP FFD	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	055E27 20S51	800 KM	435.5265 KHZ 435.5 1624.5 KHZ	1274
1817 MOD	REU F	S DENIS 055E36 20S54	FC CP FFD	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	055E27 20S51	800 KM	435.5265 KHZ 435.5 1624.5 KHZ	1274
2822 IFRB	SDN	PT SUDAN 037E14 19N38	FC CP	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	037E14 19N38	400 KM	484.0000 KHZ 435.5 526.0 KHZ	
43 SUP	SHN G	ST HELENA 005W43 15S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	005W43 15S56	320 KM	435.5 1624.5 KHZ	329

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2823 IFRB	SOM	MOGADISCIO 045E20 02N02	FC CO	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	045E20 02N02 400 KM	450.0000 KHZ 435.5 526.0 KHZ	
2774 IFRB	SYR	LATTAKIA RADIO 035E47 35N30	FC CP YMK7	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	035E47 35N30 500 KM	432.0000 KHZ 435.5 526.0 KHZ	
2252 MOD	TGO	LOME RADIO 001E36 06N15	FC CP 5VA8	0715-1930 DUPLEX	2K80J3E	X 20.1 DBW	ND	001E36 06N15 200 KM	1650.0000 KHZ 1636.4 1798.4 KHZ	1314
2253 MOD	TGO	LOME RADIO 001E36 06N15	FC CP 5VA8	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	001E36 06N15 1000 KM	472.0000 KHZ 435.5 526.0 KHZ	
2825 MIFRB	TRC	TRISTANDACUNHA 012W19 35S03	FC CO	0600-1800 DUPLEX	100HA1A	X 26.0 DBW	ND	012W19 35S03 1000 KM	500.0000 KHZ 435.5 526.0 KHZ	
2064 MOD	TUN	SFAX RADIO 2 MDN 010E44 34N44	FC CO 3VS	0600-2400 SIMPLEX	100HA1A	X 27.0 DBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	512.0000 KHZ 435.5 526.0 KHZ	1315
2392 SUP	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 DBW	ND	014E14 40N50 008E56 44N25 012E21 41N48 010E19 43N29 005E21 43N19 013E11 32N54	484.0000 KHZ 435.5 526.0 KHZ	1334
2396 MOD	TUN	MAHDIA RADIO 2 MDN 011E04 35N30	FC CO 3VM	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	010E11 36N53 014E21 35N53 012E34 37N38 012E30 38N01 020E03 32N07 013E11 32N54	1785.0000 KHZ 1636.4 1798.4 KHZ	
2397 MOD	TUN	MAHDIA RADIO PORT 011E04 35N30	FC CR 3VM	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	010E11 36N53 014E21 35N53 012E34 37N38 012E30 38N01 020E03 32N07 013E11 32N54	2078.0000 KHZ 1636.4 1798.4 KHZ	
2399 SUP	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	2K10A2AAN	X 27.0 DBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	512.0000 KHZ 435.5 526.0 KHZ	1374

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 25
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2401 MOD	TUN	SFAX RADIO 2 MDN 010E44 34N44	FC CO 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 DBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	1725.0000 KHZ 1636.4 1798.4 KHZ	
2405 MOD	TUN	BIZERTE RADIO 2 MDN 009E53 37N16	FC CO 3VB	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 DBW	ND	005E21 43N19 003E18 36N40 014E14 40N50 008E56 44N25 012E21 41N48 009E14 39N13	472.0000 KHZ 435.5 526.0 KHZ	1334
2406 MOD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K70J3EJN	X 17.0 DBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	1696.0000 KHZ 1636.4 1798.4 KHZ	
2407 MOD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	1770.0000 KHZ 1636.4 1798.4 KHZ	
2408 MOD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K70J3EJN	X 17.0 DBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	2100.0000 KHZ 1636.4 1798.4 KHZ	
2410 MOD	TUN	TABARKA RADIO 2 MDN 006E25 36N57	FC CO 3VL	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 DBW	ND	005E21 43N19 003E18 36N40 009E14 39N13 002E43 39N31 008E56 44N25 002E23 41N25	490.0000 KHZ 435.5 526.0 KHZ	1334
2413 SUP	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	441.0000 KHZ 435.5 526.0 KHZ	1373
2414 MOD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	2K10A2AAN	X 30.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	512.0000 KHZ 435.5 526.0 KHZ	1373
2415 MOD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	1820.0000 KHZ 1636.4 1798.4 KHZ	1375
2416 MOD	TUN	TUNIS RADIO 2 MDN 010E11 36N53	FC CO 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	1797.0000 KHZ 1636.4 1798.4 KHZ	
2417 MOD	TUN	TUNIS RADIO PORT 010E11 36N53	FC CR 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	2060.0000 KHZ 1636.4 1798.4 KHZ	
2751 SUP	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 SIMPLEX	100HA1A	X 27.0 DBW	ND	006E25 36N57 500 KM	490.0 490.0 KHZ	1449
2759 SUP	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 DBW	ND	010E11 36N53 300 KM	435.5 1624.5 KHZ	1452
2762 MOD	TUN	TUNIS RADIO 2 MDN 010E11 36N53	FC CO 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 DBW	ND	010E11 36N53 300 KM	441.0 441.0 KHZ	1453

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2764 MOD	TUN	TUNIS RADIO 2 MDN 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 DBW	ND	010E11 36N53	300 KM	465.0 465.0 KHZ	1454
2766 MOD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 30.0 DBW	ND	010E11 36N53	250 KM	512.0 512.0 KHZ	1455
2866 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 SIMPLEX	304HF1BCN	X 27.0 DBW	ND	009E53 37N16	800 KM	1621.5 1621.5 KHZ	
2867 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 SIMPLEX	304HF1BCN	X 27.0 DBW	ND	009E53 37N16	800 KM	1623.5 1623.5 KHZ	
2868 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	304HF1BCN	X 27.0 DBW	ND	010E44 34N44	800 KM	1621.5 1621.5 KHZ	
2869 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	304HF1BCN	X 27.0 DBW	ND	010E44 34N44	800 KM	1623.5 1623.5 KHZ	
2870 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	304HF1BCN	X 37.0 DBW	ND	010E11 36N53	1000 KM	1608.0 1608.0 KHZ	
2871 ADD	TUN	TUNIS, RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	304HF1BCN	X 37.0 DBW	ND	010E11 36N53	1000 KM	1611.0 1611.0 KHZ	
2876 ADD	TUN	BIZERTE 009E48 37N09	FC CO	0000-2400 DUPLEX	1K15A1B	X 27.0 DBW	ND	009E48 37N09	KM	441.0 441.0 KHZ	
2877 ADD	TUN	C BLANC 009E50 37N20	FC CO	0000-2400 DUPLEX	2K80J3E	X 14.8 DBW	ND	009E50 37N20	50 KM	1638.9 1638.9 KHZ	
2878 ADD	TUN	SFAX 010E46 34N44	FC CO	0000-2400 DUPLEX	2K80J3E	X 14.8 DBW	ND	010E46 34N44	50 KM	1638.9 1638.9 KHZ	
2879 ADD	TUN	SOUSSE 010E38 35N49	FC CO	0000-2400 DUPLEX	2K80J3E	X 14.8 DBW	ND	010E38 35N49	200 KM	1651.4 1651.4 KHZ	
2880 ADD	TUN	C BLANC 009E50 37N20	FC CO	0000-2400 DUPLEX	100HA1A	X 14.8 DBW	ND	009E50 37N20	100 KM	435.5 1624.5 KHZ	
2881 ADD	TUN	LA GOULETTE 010E11 36N48	FC CO	0000-2400 DUPLEX	2K80J3E	X 16.0 DBW	ND	010E11 36N48	200 KM	1744.4 1744.4 KHZ	
2889 ADD	TUN	SFAX 010E46 34N44	FC CR	0000-2400 DUPLEX	2K80J3E	X 14.8 DBW	ND	010E46 34N44	100 KM	1744.0 1744.0 KHZ	
2906 ADD	TUN	TUNIS RADIO 001E11 36N53	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	001E11 36N53	200 KM	1608.0000 KHZ 1607.0 1624.5 KHZ	
2907 ADD	TUN	TUNIS RADIO 001E11 36N53	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	001E11 36N53	200 KM	1611.0000 KHZ 1607.0 1624.5 KHZ	
2500 MOD	TUR	TRABZON 039E43 41N00	FC CP TA02	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	039E43 41N00	250 KM	447.0000 KHZ 435.5 526.0 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 27
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2826 MIFRB	YEM	HODEIDAH 042E54 14N55	FC CP	0000-2400 DUPLEX	2K10A2B	X 30.0 DBW	ND	042E54 14N55	1800 KM	461.0000 KHZ 435.5 526.0 KHZ	
2827 IFRB	YEM	ALAHMADI 042E54 14N55	FC CP	0000-2400 DUPLEX	2K80J3E	X 24.0 DBW	ND	042E54 14N55	500 KM	1787.0000 KHZ 1636.4 1798.4 KHZ	
839 MOD	YUG	KOPER 013E44 45N33	FC CP YUK	0000-2400 SIMPLEX	100HA1AAN	X 26.0 DBW	ND	013E44 45N33	300 KM	449.0000 KHZ 449.0 449.0 KHZ	142
841 MOD	YUG	ZADAR 015E14 44N07	FC CP YUZ	0000-2400 SIMPLEX	100HA1AAN	X 26.0 DBW	ND	015E14 44N07	300 KM	440.5000 KHZ 440.5 440.5 KHZ	142
845 MOD	YUG	KOPER 013E44 45N33	FC CP YUK	0000-2400 SIMPLEX	134HJ2BCN	X 26.0 DBW	ND	013E44 45N33	300 KM	442.0000 KHZ 442.0 442.0 KHZ	142
847 MOD	YUG	ZADAR 015E14 44N07	FC CP YUZ	0000-2400 SIMPLEX	134HJ2BCN	X 27.0 DBW	ND	015E14 44N07	300 KM	448.0000 KHZ 448.0 448.0 KHZ	142
849 MOD	YUG	DUBROVNIK 018E07 42N38	FC CP YUX	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 DBW	ND	018E07 42N38	200 KM	447.0000 KHZ 447.0 447.0 KHZ	142
850 MOD	YUG	BAR 019E06 42N01	FC CP YUW	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 DBW	ND	019E06 42N01	200 KM	445.0000 KHZ 445.0 445.0 KHZ	142
2291 SUP	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 DBW	ND	012E18 05S53	800 KM	515.0000 KHZ 435.5 526.0 KHZ	
2428 SUP	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 DBW	ND	012E18 05S53	800 KM	515.0000 KHZ 435.5 526.0 KHZ	
2429 SUP	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 DBW	ND	012E18 05S53	800 KM	515.0000 KHZ 435.5 526.0 KHZ	
2430 SUP	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 DBW	ND	012E18 05S53	800 KM	518.0000 KHZ 435.5 526.0 KHZ	
2431 SUP	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 DBW	ND	012E18 05S53	800 KM	518.0000 KHZ 435.5 526.0 KHZ	
2433 SUP	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 DBW	ND	012E18 05S53	800 KM	520.0000 KHZ 435.5 526.0 KHZ	

ANNEX 3

Explanation of the symbols included in the list in Annex 4

IFRB No.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the administration submitting to requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmitting antenna in degrees and minutes.
CL.	Class of station, AL = Aeronautical Radiobeacon.
NAT.	Nature of service.
IDENTIFIC.	Identification signal to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antena, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antena: ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area: the geographical coordinates of the center and value of the radius; In case of a service area defined by points: the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

RADIOPHARES AERONAUTIQUES * AERONAUTICAL RADIOBEACONS * RADIOFAROS AERONAUTICOS 1
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51073 MOD	AGL	PORTO AMBOIM 013E46 10S43	AL RC PA	0000-2400	2K04A2AAN	Y 20.0 DBW	ND	013E46 10S43	138 KM	415.0 415.0 KHZ	
51074 MOD	AGL	LUANDA 013E18 08S47	AL RC LD	0000-2400	2K04A2AAN	Y 34.8 DBW	ND	013E18 08S47	462 KM	415.0 415.0 KHZ	
51075 MOD	AGL	JAMBA 016E02 14S42	AL RC JB	0000-2400	2K04A2AAN	Y 18.8 DBW	ND	016E02 14S42	92 KM	415.0 526.0 KHZ	
51076 MOD	AGL	CAFUNFO 018E00 08S46	AL RC CF	0000-2400	2K04A2AAN	Y 20.0 DBW	ND	018E00 08S46	185 KM	415.0 415.0 KHZ	
51077 MOD	AGL	GAGO COUTINHO 021E26 14S06	AL RC	0000-2400	2K04A2AAN	Y 26.0 DBW	ND	021E26 14S06	03 KM	415.0 415.0 KHZ	
51078 MOD	AGL	DONDO 014E28 09S41	AL RC DO	0000-2400	2K04A2AAN	Y 26.0 DBW	ND	014E28 09S41	92 KM	415.0 415.0 KHZ	
51079 MOD	AGL	CABINDA 012E12 05S37	AL RC CA	0000-2400	2K04A2AAN	Y 26.0 DBW	ND	012E12 05S37	185 KM	415.0 526.0 KHZ	
50504 MOD	ALG	OUARGLA 005E25 31N56	AL RC ORG	0000-2400	100HA1A	X 23.0 DBW	ND	005E25 31N56	100 KM	421.0000 KHZ 415.0 526.0 KHZ	
50505 MOD	ALG	ANNABA 007E47 36N50	AL RC ANB	0000-2400	100HA1A	X 23.0 DBW	ND	007E47 36N50	100 KM	417.0000 KHZ 415.5 526.0 KHZ	
50507 MOD	ALG	ORAN ES SENIA 000W38 35N39	AL RC ON	0000-2400	100HA1A	X 17.0 DBW	ND	000W38 35N39	100 KM	432.0000 KHZ 415.5 526.0 KHZ	
50511 MOD	ALG	JIJEL 005E52 36N48	AL RC DJI	0000-2400	100HA1A	X 17.0 DBW	ND	005E52 36N48	100 KM	415.0000 KHZ 415.5 526.0 KHZ	
50515 MOD	ALG	TOUGGOURT 006E05 33N03	AL RC TGT	0000-2400	100HA1A	X 17.0 DBW	ND	006E05 33N03	100 KM	416.0000 KHZ 415.5 526.0 KHZ	
50520 MOD	ALG	EL OUED 006E47 33N30	AL RC ELO	0000-2400	100HA1A	X 17.0 DBW	ND	006E47 33N30	100 KM	434.0000 KHZ 415.5 526.0 KHZ	
50526 MOD	ALG	BATNA 006E09 35N32	AL RC BTN	0000-2400	100HA1A	X 17.0 DBW	ND	006E09 35N32	100 KM	425.0000 KHZ 415.5 526.0 KHZ	
50528 MOD	ALG	EL BAYAD 001E01 33N41	AL RC BAY	0000-2400	100HA1A	X 26.0 DBW	ND	001E01 33N41	100 KM	425.0000 KHZ 415.5 526.0 KHZ	
50537 MOD	ALG	TLEMCEN 001W21 35N02	AL RC TLM	0000-2400	100HA1A	X 23.0 DBW	ND	001W21 35N02	100 KM	422.0000 KHZ 415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50929	ALG	ALGER	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	003E18 36N40	100 KM	526.0000 KHZ	
MOD		003E18 36N40								526.0 526.0 KHZ	
50931	ALG	BEJAIA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E02 36N43	100 KM	509.0000 KHZ	
MOD		005E02 36N43								509.0 509.0 KHZ	
50933	ALG	ANNABA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	007E45 36N54	100 KM	509.0000 KHZ	
MOD		007E45 36N54								509.0 509.0 KHZ	
50937	ALG	GARA DJEBILET	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	007W11 26N53	100 KM	507.0000 KHZ	
MOD		007W11 26N53								507.0 507.0 KHZ	
50938	ALG	TIMIMOUN	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000E17 29N14	100 KM	507.0000 KHZ	
MOD		000E17 29N14								507.0 507.0 KHZ	
50939	ALG	ADRAR	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000W14 27N46	100 KM	507.0000 KHZ	
MOD		000W14 27N46								507.0 507.0 KHZ	
50940	ALG	BATNA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E09 35N32	100 KM	522.0000 KHZ	
MOD		006E09 35N32								522.0 522.0 KHZ	
50941	ALG	EL OUED	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E47 33N30	100 KM	513.0000 KHZ	
MOD		006E47 33N30								513.0 513.0 KHZ	
50943	ALG	BECHAR	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	002W14 31N38	100 KM	513.0000 KHZ	
MOD		002W14 31N38								513.0 513.0 KHZ	
50944	ALG	BOUSAADA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	004E12 35N20	100 KM	512.0000 KHZ	
MOD		004E12 35N20								512.0 512.0 KHZ	
50946	ALG	EL BAYADH	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	001E01 33N41	100 KM	506.0000 KHZ	
MOD		001E01 33N41								506.0 506.0 KHZ	
50948	ALG	SETIF	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E25 36N36	100 KM	506.0000 KHZ	
MOD		005E25 36N36								506.0 506.0 KHZ	
50949	ALG	ORAN ES SENIA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000W35 35N39	100 KM	506.0000 KHZ	
MOD		000W35 35N39								506.0 506.0 KHZ	
50952	ALG	BORDJ OMAR DRISS	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E50 28N08	100 KM	506.0000 KHZ	
MOD		006E50 28N08								506.0 506.0 KHZ	
50954	ALG	BISKRA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E44 34N48	100 KM	511.0000 KHZ	
MOD		005E44 34N48								511.0 511.0 KHZ	
50958	ALG	CHENACHENE	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	004W13 26N03	100 KM	519.0000 KHZ	
MOD		004W13 26N03								519.0 519.0 KHZ	
50959	ALG	TINDOUF	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	008W10 35N02	100 KM	523.0000 KHZ	
MOD		008W10 35N02								523.0 523.0 KHZ	
50964	ALG	OUARGLA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E25 31N56	100 KM	523.0000 KHZ	
MOD		005E25 31N56								523.0 523.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50966	ALG	DJANET	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	009E26 24N16	100 KM	523.0000 KHZ	
MOD		009E26 24N16								523.0 523.0 KHZ	
50968	ALG	EL GOLEA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	002E52 30N35	100 KM	510.0000 KHZ	
MOD		002E52 30N35								510.0 510.0 KHZ	
50971	ALG	HASSI MESSAOUD	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E08 31N39	100 KM	510.0000 KHZ	
MOD		006E08 31N39								510.0 510.0 KHZ	
50973	ALG	IN GEZZAM	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E46 19N34	100 KM	510.0000 KHZ	
MOD		005E46 19N34								510.0 510.0 KHZ	
50979	ALG	JIJEL	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E52 36N48	100 KM	510.0000 KHZ	
MOD		005E52 36N48								510.0 510.0 KHZ	
51006	ALG	HASSI EL KHEBI	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005W16 29N11	100 KM	520.0000 KHZ	
MOD		005W16 29N11								520.0 520.0 KHZ	
51009	ALG	TLEMCEN	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	001W21 35N02	100 KM	525.0000 KHZ	
MOD		001W21 35N02								525.0 525.0 KHZ	
51010	ALG	TEBESSA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	008E03 35N27	100 KM	525.0000 KHZ	
MOD		008E03 35N27								525.0 525.0 KHZ	
51011	ALG	IN SALAH	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	002E31 27N15	100 KM	525.0000 KHZ	
MOD		002E31 27N15								525.0 525.0 KHZ	
51018	ALG	IN AMENAS	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	009E37 28N03	100 KM	508.0000 KHZ	
MOD		009E37 28N03								508.0 508.0 KHZ	
51022	ALG	MASCARA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000E11 35N13	100 KM	514.0000 KHZ	
MOD		000E11 35N13								514.0 514.0 KHZ	
51024	ALG	TAMANRASSET	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E25 22N48	100 KM	515.0000 KHZ	
MOD		005E25 22N48								515.0 515.0 KHZ	
51026	ALG	TIARET	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	001E28 35N21	100 KM	515.0000 KHZ	
MOD		001E28 35N21								515.0 515.0 KHZ	
51028	ALG	TOUGGOURT	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E05 33N03	100 KM	515.0000 KHZ	
MOD		006E05 33N03								515.0 515.0 KHZ	
51031	ALG	ORAN ES SENIA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000W38 35N39	100 KM	505.0000 KHZ	
MOD		000W38 35N39								505.0 505.0 KHZ	
51094	BDI	RUYIGI	AL RC	0000-2400	100HA1A	X 14.0 DBW	ND	030E15 03S29	100 KM	435.0000 KHZ	
MIFRB		030E15 03S29	YI							415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51095 MIFRB	BDI	BULINGA 029E19 03S14	AL RC BN	0000-2400	100HA1A	X 14.0 DBW	ND	029E19 03S14	40 KM	425.0000 KHZ 415.0 526.0 KHZ	
50620 SUP	BEL	ST-TRUIDEN 005E11 50N47	AL RC ST	0000-2400	2K10A2A	Y 14.0 DBW	ND	005E11 50N47	46 KM	435.0000 KHZ 415.5 526.0 KHZ	
51038 MOD	BEN	KANDI AEROPORT 002E56 11N08	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	002E56 11N08	400 KM	415.0 526.0 KHZ	
51039 MOD	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU.	0000-2400	2K00A2A	Y 30.0 DBW	ND	002E38 09N20	400 KM	415.0 526.0 KHZ	
51040 SUP	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU	0000-2400	2K00A2A	Y 30.0 DBW	ND	002E38 09N20	400 KM	415.0 526.0 KHZ	
51041 MOD	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU	0000-2400	100HA1A	X 30.0 DBW	ND	002E38 09N20	400 KM	415.0 526.0 KHZ	
51042 MOD	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU	0000-2400	100HA1A	X 30.0 DBW	ND	002E38 09N20	50 KM	415.0 526.0 KHZ	
51043 MOD	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400	2K00A2A	Y 30.0 DBW	ND	002E25 06N23	50 KM	415.0 526.0 KHZ	
51044 MOD	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400	100HA1A	X 30.0 DBW	ND	002E25 06N23	400 KM	415.0 526.0 KHZ	
51045 MOD	BEN	NATITINGOU AEROPORT 001E35 09N47	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	001E35 09N47	400 KM	426.0 426.0 KHZ	
51046 MOD	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400	2K00A2A	Y 30.0 DBW	ND	002E25 06N23	50 KM	415.0 526.0 KHZ	
51047 MOD	BEN	NATITINGOU AEROPORT 001E35 09N47	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	001E35 09N47	400 KM	424.0 424.0 KHZ	
51048 MOD	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400	100HA1A	X 30.0 DBW	ND	002E25 06N23	400 KM	415.0 526.0 KHZ	
51049 MOD	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400	100HA1A	X 30.0 DBW	ND	002E25 06N23	400 KM	415.0 526.0 KHZ	
51050 MOD	BEN	SAVE AEROPORT 002E31 08N47	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	002E31 08N47	400 KM	444.0 444.0 KHZ	

RADIOPHARES AERONAUTIQUES * AERONAUTICAL RADIOBEACONS * RADIOFAROS AERONAUTICOS 5
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/08/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
51051 SUP	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400	100HA1A	X 30.0 DBW	ND	002E25 06N23 400 KM	415.0 526.0 KHZ	
51052 MOD	BEN	SAVE AEROPORT 002E31 07N47	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	002E31 07N47 400 KM	442.0 442.0 KHZ	
51053 MOD	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400	2K00A2A	Y 30.0 DBW	ND	002E25 06N23 50 KM	415.0 526.0 KHZ	
51054 MOD	BEN	DJOUGOU AEROPORT 001E40 09N42	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	001E40 09N42 400 KM	434.0 434.0 KHZ	
51055 MOD	BEN	DJOUGOU AEROPORT 001E40 09N42	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	001E40 09N42 400 KM	432.0 432.0 KHZ	
51056 MOD	BEN	KANDI AEROPORT 002E56 11N08	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	002E56 11N08 400 KM	420.0 420.0 KHZ	
50289 MOD	BLR URS	MINSK 027E31 53N53	AL RC NE	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	027E31 53N53 90 KM	435.0 435.0 KHZ	294
50477 MOD	BUL	BARNA 027E52 43N13	AL RC WR	0000-2400	100HA1A	Y 24.0 DBW	ND	027E52 43N13 50 KM	526.0000 KHZ 415.5 526.0 KHZ	
50478 MOD	BUL	SOFIA 023E24 42N41	AL RC SF	0000-2400	100HA1A	Y 24.0 DBW	ND	023E24 42N41 50 KM	526.0000 KHZ 415.5 526.0 KHZ	
50479 MOD	BUL	SLIVAN 026E12 42N35	AL RC SV	0000-2400	100HA1A	Y 30.0 DBW	ND	026E12 42N35 50 KM	526.0000 KHZ 415.5 526.0 KHZ	
50480 MOD	BUL	SILISTRA 027E16 44N07	AL RC S	0000-2400	100HA1A	Y 24.0 DBW	ND	027E16 44N07 50 KM	526.0000 KHZ 415.5 526.0 KHZ	
50483 MOD	BUL	TOLBOUHIN 027E50 43N35	AL RC TO	0000-2400	100HA1A	Y 17.0 DBW	ND	027E50 43N35 30 KM	520.0000 KHZ 415.5 526.0 KHZ	
50484 MOD	BUL	IAMBOL 026E30 42N28	AL RC IA	0000-2400	100HA1A	Y 17.0 DBW	ND	026E30 42N28 30 KM	505.0000 KHZ 415.5 526.0 KHZ	
50486 MOD	BUL	BOURGAS 027E30 42N33	AL RC BS	0000-2400	100HA1A	Y 17.0 DBW	ND	027E30 42N33 30 KM	508.0000 KHZ 415.5 526.0 KHZ	
50490 MOD	BUL	ROUSSE 026E00 43N50	AL RC RUS	0000-2400	100HA1A	Y 30.0 DBW	ND	026E00 43N50 50 KM	415.0000 KHZ 415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50942 MOD	CME	BAMENDA	010E07 06N02	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	010E07 06N02	100 KM	519.5000 KHZ 415.0 526.0 KHZ	
50945 SUP	CME	BAMENDA	010E07 06N02	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E07 06N02	400 KM	520.0000 KHZ 415.0 526.0 KHZ	
50947 MOD	CME	BAGANTE	010E33 05N07	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E33 05N07	50 KM	505.0000 KHZ 415.0 526.0 KHZ	
50950 MOD	CME	BAFIA	011E16 04N46	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E16 04N46	50 KM	505.5000 KHZ 415.0 526.0 KHZ	
50951 MOD	CME	EDEA	010E08 03N47	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E08 03N47	100 KM	506.5000 KHZ 415.0 526.0 KHZ	
50953 MOD	CME	BANYO	011E50 06N44	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E50 06N44	100 KM	507.5000 KHZ 415.0 526.0 KHZ	
50955 MOD	CME	AKWAYA	009E34 06N24	AL RC	0000-2400	100HA1A	X 15.0 DBW	ND	009E34 06N24	100 KM	508.5000 KHZ 415.0 526.0 KHZ	
50957 MOD	CME	DSCHANG	010E04 05N27	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E04 05N27	50 KM	508.0000 KHZ 415.0 526.0 KHZ	
50960 MOD	CME	MUDEMBA	008E53 05N01	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	008E53 05N01	100 KM	509.0000 KHZ 415.0 526.0 KHZ	
50961 MOD	CME	NGUTI	009E25 05N20	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E25 05N20	50 KM	509.5000 KHZ 415.0 526.0 KHZ	
50962 SUP	CME	IDENAO	009E00 04N13	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E00 04N13	200 KM	510.0000 KHZ 415.0 526.0 KHZ	
50963 SUP	CME	TIKO	009E22 04N05	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E22 04N05	200 KM	510.5000 KHZ 415.0 526.0 KHZ	
50965 MOD	CME	CAMPO	009E56 02N22	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E56 02N22	50 KM	511.0000 KHZ 415.0 526.0 KHZ	
50967 MOD	CME	AMBAM	011E16 02N22	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E16 02N22	100 KM	511.5000 KHZ 415.0 526.0 KHZ	
50969 SUP	CME	BAMUSSO	008E57 04N32	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	008E57 04N32	200 KM	512.0000 KHZ 415.0 526.0 KHZ	
50970 MOD	CME	KRIBI	009E43 02N53	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E43 02N53	180 KM	420.0000 KHZ 415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50972 SUP	CME	KRIBI	009E43 02N53	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 02N53	400 KM	513.0000 KHZ 415.0 526.0 KHZ	
50974 MOD	CME	NGAOUNDERE	013E34 07N22	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E34 07N22	180 KM	514.0000 KHZ 415.0 526.0 KHZ	
50975 MOD	CME	NGAOUNDERE	013E34 07N22	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E34 07N22	50 KM	514.5000 KHZ 415.0 526.0 KHZ	
50977 SUP	CME	MAROUA	014E15 10N27	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	014E15 10N27	180 KM	516.0000 KHZ 415.0 526.0 KHZ	
50978 MOD	CME	KOUTABA	010E45 05N39	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	010E45 05N39	180 KM	517.0000 KHZ 415.0 526.0 KHZ	
50980 SUP	CME	KOUTABA	010E45 05N39	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E45 05N39	400 KM	517.5000 KHZ 415.0 526.0 KHZ	
50982 MOD	CME	BAFOUSSAM	010E25 05N27	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E25 05N27	100 KM	519.0000 KHZ 415.0 526.0 KHZ	
50983 MOD	CME	BAMENDA	010E07 06N02	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E07 06N02	150 KM	520.5000 KHZ 415.0 526.0 KHZ	
50984 MOD	CME	BERTOUA	013E44 04N32	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E44 04N32	180 KM	521.0000 KHZ 415.0 526.0 KHZ	
50985 MOD	CME	BERTOUA	013E44 04N32	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E44 04N32	50 KM	521.5000 KHZ 415.0 526.0 KHZ	
50986 SUP	CME	BERTOUA	013E44 04N32	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E44 04N32	400 KM	522.0000 KHZ 415.0 526.0 KHZ	
50987 MOD	CME	GAROUA	013E25 09N20	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E25 09N20	100 KM	522.5000 KHZ 415.0 526.0 KHZ	
50988 MOD	CME	GAROUA	013E25 09N20	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E25 09N20	180 KM	523.0000 KHZ 415.0 526.0 KHZ	
50989 SUP	CME	GAROUA	013E25 09N20	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E25 09N20	400 KM	523.5000 KHZ 415.0 526.0 KHZ	
50990 MOD	CME	YAOUNDE	011E31 03N50	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	011E31 03N50	180 KM	524.0000 KHZ 415.0 526.0 KHZ	
50991 MOD	CME	YAOUNDE	011E31 03N50	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	011E31 03N50	100 KM	524.5000 KHZ 415.0 526.0 KHZ	
50992 SUP	CME	YAOUNDE	011E31 03N50	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	011E31 03N50	200 KM	525.0000 KHZ 415.0 526.0 KHZ	
50993 SUP	CME	YAOUNDE	011E31 03N50	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	011E31 03N50	400 KM	525.5000 KHZ 415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50994 SUP	CME	DOUALA	009E43 04N01	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E43 04N01	200 KM	526.0000 KHZ 415.0 526.0 KHZ	
50995 SUP	CME	DOUALA	009E43 04N01	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 04N01	400 KM	526.5000 KHZ 415.0 526.0 KHZ	
50996 MOD	CME	DOUALA	009E43 04N01	AL RC	0000-2400	100HA1A	Y 20.0 DBW	ND	009E43 04N01	180 KM	415.0000 KHZ 415.0 526.0 KHZ	
50997 MOD	CME	DOUALA	009E43 04N01	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E43 04N01	180 KM	431.0000 KHZ 415.0 526.0 KHZ	
50998 MOD	CME	YAGOUA	015E14 10N22	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E14 10N22	100 KM	416.0000 KHZ 415.0 526.0 KHZ	
50999 MOD	CME	KOURCUI	014E07 11N05	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E07 11N05	50 KM	416.5000 KHZ 415.0 526.0 KHZ	
51000 MOD	CME	TIGNERE	012E36 07N22	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E36 07N22	100 KM	417.5000 KHZ 415.0 526.0 KHZ	
51001 MOD	CME	NGAOUNDAL	013E23 06N24	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	013E23 06N24	100 KM	418.0000 KHZ 415.0 526.0 KHZ	
51002 MOD	CME	TOUBORO	015E40 07N40	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E40 07N40	180 KM	416.0000 KHZ 415.0 526.0 KHZ	
51003 MOD	CME	TIBATI	012E37 06N27	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E37 06N27	50 KM	419.0000 KHZ 415.0 526.0 KHZ	
51004 MOD	CME	BETARE OYA	014E07 05N36	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E07 05N36	50 KM	419.5000 KHZ 415.0 526.0 KHZ	
51005 MOD	CME	LOLO	014E55 04N17	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E55 04N17	50 KM	420.5000 KHZ 415.0 526.0 KHZ	
51007 MOD	CME	MOULOUNDOU	015E13 02N02	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E13 02N02	180 KM	421.0000 KHZ 415.0 526.0 KHZ	
51008 MOD	CME	DJOUM	012E38 02N40	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E38 02N40	180 KM	417.0000 KHZ 415.0 526.0 KHZ	
51012 MOD	CME	EBOLOWA	011E11 02N51	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E11 02N51	180 KM	427.0000 KHZ 415.0 526.0 KHZ	
51013 MOD	CME	MINTOH	015E17 02N40	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E17 02N40	150 KM	422.5000 KHZ 415.0 526.0 KHZ	
51014 MOD	CME	YOKADOUMA	015E11 03N25	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E11 03N25	150 KM	423.0000 KHZ 415.0 526.0 KHZ	
51015 MOD	CME	MADINGRIN	014E55 08N25	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E55 08N25	180 KM	423.5000 KHZ 415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51016 MOD	CME	BAIKWA	014E25 09N10	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E25 09N10	50 KM	424.0000 KHZ 415.0 526.0 KHZ	
51017 MOD	CME	WAZA	014E32 11N21	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E32 11N21	50 KM	424.5000 KHZ 415.0 526.0 KHZ	
51019 MOD	CME	NKONGSAMBA	009E57 04N57	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E57 04N57	50 KM	425.0000 KHZ 415.0 526.0 KHZ	
51020 MOD	CME	NWA	011E05 06N27	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E05 06N27	100 KM	427.5000 KHZ 415.0 526.0 KHZ	
51021 MOD	CME	NGOILA	014E00 02N37	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E00 02N37	100 KM	429.5000 KHZ 415.0 526.0 KHZ	
51023 MOD	CME	MAKARI	014E27 12N33	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E27 12N33	50 KM	429.5000 KHZ 415.0 526.0 KHZ	
51025 MOD	CME	KOUSSERI	015E02 12N05	AL RC	0000-2400	100HA1A	X 15.0 DBW	ND	015E02 12N05	180 KM	427.0000 KHZ 415.0 526.0 KHZ	
51027 MOD	CME	BOURRAH	013E28 10N11	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	013E28 10N11	50 KM	430.5000 KHZ 415.0 526.0 KHZ	
51029 MOD	CME	MEIGANGA	014E16 06N33	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E16 06N33	100 KM	432.0000 KHZ 415.0 526.0 KHZ	
51030 MOD	CME	YOKO	012E20 05N31	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E20 05N31	180 KM	432.5000 KHZ 415.0 526.0 KHZ	
51032 MOD	CME	NKAMBE	010E40 06N12	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E40 06N12	100 KM	433.0000 KHZ 415.0 526.0 KHZ	
51033 MOD	CME	MAMFE	009E20 05N43	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E20 05N43	180 KM	433.5000 KHZ 415.0 526.0 KHZ	
51034 MOD	CME	BATOURI	014E22 04N28	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E22 04N28	180 KM	434.0000 KHZ 415.0 526.0 KHZ	
51035 MOD	CME	ABONG MBANG	013E12 04N00	AL RC	0000-2400	100HA1A	X 15.0 DBW	ND	013E12 04N00	50 KM	424.0000 KHZ 415.0 526.0 KHZ	
50771 SUP	CTI	ABIDJAN	003W56 05N14	AL RC TUH-AN	0000-2400	2K10A2A	Y 17.0 DBW	ND	003W56 05N14	50 KM	306.0000 KHZ 415.0 526.0 KHZ	
50772 SUP	CTI	ABIDJAN	003W56 05N14	AL RC TUH-AN	0000-2400	2K10A2A	Y 17.0 DBW	ND	003W56 05N14	50 KM	327.0000 KHZ 415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50773 MOD	CTI	BOUAKE 004W58 07N42	AL RC TUH-BKE	0000-2400	2K10A2A	Y 20.0 DBW	ND	004W58 07N42	200 KM	258.0000 KHZ 415.0 526.0 KHZ	
50774 MOD	CTI	BOUAKE 004W58 07N42	AL RC TUH-BKE	0000-2400	2K10A2A	Y 20.0 DBW	ND	004W58 07N42	200 KM	283.0000 KHZ 415.0 526.0 KHZ	
50775 SUP	CTI	YAMOUSSOUKRO 005W20 06N55	AL RC TUH-YKO	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W20 06N55	50 KM	363.0000 KHZ 415.0 526.0 KHZ	
50776 MOD	CTI	YAMOUSSOUKRO 005W20 06N55	AL RC TUH-YKO	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W20 06N55	200 KM	269.0000 KHZ 415.0 526.0 KHZ	
50777 SUP	CTI	SAN-PEDRO 006W39 04N44	AL RC TUH-SAP	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W39 04N44	50 KM	330.0000 KHZ 415.0 526.0 KHZ	
50778 MOD	CTI	SAN-PEDRO 006W39 04N44	AL RC TUH-SAP	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W39 04N44	200 KM	415.0 526.0 KHZ	
50779 SUP	CTI	DALOA 006W28 06N52	AL RC TUH-DA	0000-2400	2K10A2A	Y 17.0 DBW	ND	006W28 06N52	50 KM	316.0000 KHZ 415.0 526.0 KHZ	
50780 MOD	CTI	DALOA 006W28 06N52	AL RC TUH-DA	0000-2400	2K10A2A	Y 17.0 DBW	ND	006W28 06N52	200 KM	415.0 526.0 KHZ	
50781 SUP	CTI	MAN 007W32 07N23	AL RC TUH-MN	0000-2400	2K10A2A	Y 14.0 DBW	ND	007W32 07N23	50 KM	366.0000 KHZ 415.0 526.0 KHZ	
50782 MOD	CTI	MAN 007W32 07N23	AL RC TUH-MN	0000-2400	2K10A2A	Y 14.0 DBW	ND	007W32 07N23	200 KM	415.0 526.0 KHZ	
50783 MOD	CTI	ODIENNE 007W34 09N30	AL RC TUH-OD	0000-2400	2K10A2A	Y 20.0 DBW	ND	007W34 09N30	200 KM	265.0000 KHZ 415.0 526.0 KHZ	
50784 MOD	CTI	ODIENNE 007W34 09N30	AL RC TUH-OD	0000-2400	2K10A2A	Y 20.0 DBW	ND	007W34 09N30	200 KM	415.0 526.0 KHZ	
50785 MOD	CTI	KORHOGO 005W38 09N27	AL RC TUH-KH	0000-2400	2K10A2A	Y 20.0 DBW	ND	005W38 09N27	200 KM	415.0 526.0 KHZ	
50786 MOD	CTI	KORHOGO 005W38 09N27	AL RC TUH-KH	0000-2400	2K10A2A	Y 20.0 DBW	ND	005W38 09N27	200 KM	415.0 526.0 KHZ	
50787 SUP	CTI	ABENGOUROU 003W29 06N44	AL RC TUH-ABN	0000-2400	2K10A2A	Y 20.0 DBW	ND	003W29 06N44	50 KM	400.0000 KHZ 415.0 526.0 KHZ	
50788 MOD	CTI	ABENGOUROU 003W29 06N44	AL RC TUH-ABN	0000-2400	2K10A2A	Y 20.0 DBW	ND	003W29 06N44	200 KM	415.0 526.0 KHZ	
50789 SUP	CTI	BONDOUKOU 002W42 08N01	AL RC TUH-BDK	0000-2400	2K10A2A	Y 20.0 DBW	ND	002W42 08N01	50 KM	340.0000 KHZ 415.0 526.0 KHZ	
50790 MOD	CTI	BONDOUKOU 002W42 08N01	AL RC TUH-BDK	0000-2400	2K10A2A	Y 20.0 DBW	ND	002W42 08N01	200 KM	415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50791 MOD	CTI	SASSANDRA 006W05 04N57	AL RC TUH-SS	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W05 04N57	200 KM	279.0000 KHZ 415.0 526.0 KHZ	
50792 SUP	CTI	TABOU 007W42 04N25	AL RC TUH-TBU	0000-2400	2K10A2A	Y 14.0 DBW	ND	007W42 04N45	50 KM	311.0000 KHZ 415.0 526.0 KHZ	
50793 MOD	CTI	GRAND BEREBY 006W55 04N38	AL RC TUH-GB	0000-2400	2K10A2A	Y 14.0 DBW	ND	006W55 04N38	200 KM	415.0 526.0 KHZ	
50794 SUP	CTI	SEGUELA 006W42 07N58	AL RC TUH-SGA	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W42 07N58	50 KM	397.0000 KHZ 415.0 526.0 KHZ	
50795 SUP	CTI	BOUNDIALI 006W28 09N32	AL RC TUH-BOU	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W28 09N32	50 KM	358.0000 KHZ 415.0 526.0 KHZ	
50796 SUP	CTI	M'BAHIAKRO 004W20 07N25	AL RC TUH-MBA	0000-2400	2K10A2A	Y 20.0 DBW	ND	004W20 07N25	50 KM	290.0000 KHZ 415.0 526.0 KHZ	
50797 MOD	CTI	BOUNA 005W02 09N16	AL RC TUH-BNA	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W02 09N16	200 KM	415.0 526.0 KHZ	
50805 SUP	CTI	GAGNOA 005W55 06N05	AL RC TUH-GGO	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W58 06N05	50 KM	370.0000 KHZ 415.0 526.0 KHZ	
50324 MOD	CYP	LARNACA 033E33 34N49	AL RC LCA	0000-2400	2K10A2A	Y 20.0 DBW	ND	033E33 34N49	150 KM	267.0000 KHZ 415.0 526.0 KHZ	76
50440 MOD	D	MUENSTER TELGTE 007E46 51N57	AL RC	0000-2400	2K00A2A	X 20.0 DBW	ND	007E46 51N57	47 KM	425.0 425.0 KHZ	1241
50857 MOD	D	ALFELD 011E32 49N25	AL RC FIX	0000-2400	2K00A2A	Y 20.0 DBW	ND	011E32 49N25	47 KM	516.0000 KHZ 415.0 526.0 KHZ	
50858 SUP	D	DORTMUND-WICKEDE 007E36 51N31	AL RC DOW	0000-2400	2K00A2A	Y 20.0 DBW	ND	007E36 51N31	47 KM	333.0000 KHZ 415.0 526.0 KHZ	
50859 SUP	D	HAMBURG 010E03 53N34	AL RC HMG	0000-2400	2K00A2A	Y 20.0 DBW	ND	010E03 53N34	28 KM	388.0000 KHZ 415.0 526.0 KHZ	
50860 MOD	D	BONAMES 008E40 50N11	AL RC BOX	0000-2400	2K00A2A	Y 14.0 DBW	ND	008E40 50N11	28 KM	521.0000 KHZ 415.0 526.0 KHZ	
50025 MOD	DDR	REINSDORF 012E36 51N55	AL RC RSF	0000-2400	2K10A2A	Y 20.0 DBW	ND	012E36 51N55	25 KM	436.0000 KHZ 415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50026 MOD	DDR	LEIPZIG 012E07 51N26	AL RC SK	0000-2400	2K10A2A	Y 17.0 DBW	ND	012E07 51N26	15 KM	446.0000 KHZ 415.5 526.0 KHZ	
50644 MOD	DDR	LEIPZIG-MOCKAU 012E17 51N26	AL RC K	0000-2400	2K10A2A	Y 17.0 DBW	ND	012E17 51N26	20 KM	521.5000 KHZ 415.5 526.0 KHZ	
50645 MOD	DDR	GROSS KREUTZ 012E46 52N24	AL RC KN	0000-2400	2K10A2A	Y 17.0 DBW	ND	012E46 52N24	20 KM	516.0000 KHZ 415.5 526.0 KHZ	
50646 MOD	DDR	PIESA 013E17 51N18	AL RC OZ	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E17 51N18	30 KM	510.0000 KHZ 415.5 526.0 KHZ	
50647 MOD	DDR	COTTBUS 013E32 52N22	AL RC MR	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E32 52N22	25 KM	506.0000 KHZ 415.5 526.0 KHZ	
50650 MOD	DDR	KOENIGSBERG 012E27 53N05	AL RC GJ	0000-2400	2K10A2A	Y 20.0 DBW	ND	012E27 53N05	80 KM	421.0000 KHZ 415.5 526.0 KHZ	
50653 MOD	DDR	ZEHLENDORF 013E03 51N52	AL RC BM	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E03 51N52	40 KM	313.0000 KHZ 415.5 526.0 KHZ	
50655 MOD	DDR	LEIPZIG-MOCKAU 012E17 51N26	AL RC B	0000-2400	2K10A2A	Y 17.0 DBW	ND	012E17 51N26	20 KM	308.5000 KHZ 415.5 526.0 KHZ	
50656 MOD	DDR	BARNEWITZ 012E37 52N29	AL RC TU	0000-2400	2K10A2A	Y 20.0 DBW	ND	012E37 52N29	25 KM	303.0000 KHZ 415.5 526.0 KHZ	
50657 MOD	DDR	LANDSBERG 011E42 52N30	AL RC ZW	0000-2400	2K10A2A	Y 20.0 DBW	ND	011E42 52N30	25 KM	300.0000 KHZ 415.5 526.0 KHZ	
50659 MOD	DDR	NEUHAUSEN 013E28 50N41	AL RC OP	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E28 50N41	40 KM	285.0000 KHZ 415.5 526.0 KHZ	
50347 MOD	F	MIRECOURT 006E04 48N19	AL RC MI	0000-2400	100HA1AAN	X 17.0 DBW	ND	006E04 48N19	74 KM	419.0000 KHZ 419.0 419.0 KHZ	462
50761 MOD	F	CASTETS 001W09 43N55	AL RC CTS	0000-2400	100HA1AAN	X 13.9 DBW	ND	001W09 43N55	46 KM	415.5 526.0 KHZ	149
50059 SUP	FNL	HALLI 024E39 61N51	AL RC HAL	0000-2400	100HA1A	X 36.0 DBW	ND	024E39 61N51	90 KM	312.0000 KHZ 415.5 526.0 KHZ	
50060 SUP	FNL	HALLI 024E44 61N51	AL RC G	0000-2400	300HA2A	Y 23.0 DBW	ND	024E44 61N51	20 KM	288.0000 KHZ 415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION. COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50061 SUP	FNL	HELSINKI-VANTAA 024E58 60N20	AL RC Z	0000-2400	800HA2A	Y 23.0 DBW	ND	024E58 60N20	20 KM	291.0000 KHZ 415.5 526.0 KHZ	
50062 SUP	FNL	JOENSUU 029E35 62N40	AL RC J	0000-2400	800HA2A	Y 23.0 DBW	ND	029E35 62N40	20 KM	305.0000 KHZ 415.5 526.0 KHZ	
50063 SUP	FNL	JYVASKYLA 025E48 62N21	AL RC JYV	0000-2400	100HA1A	X 36.0 DBW	ND	025E48 62N21	90 KM	296.0000 KHZ 415.5 526.0 KHZ	
50064 SUP	FNL	JYVASKYLA 025E43 62N23	AL RC L	0000-2400	800HA2A	Y 23.0 DBW	ND	025E43 62N23	20 KM	306.0000 KHZ 415.5 526.0 KHZ	
50065 SUP	FNL	KAJAANI 027E39 64N17	AL RC G	0000-2400	800HA2A	Y 23.0 DBW	ND	027E39 64N17	20 KM	315.0000 KHZ 415.5 526.0 KHZ	
50066 SUP	FNL	KAUHAVA 023E03 63N06	AL RC U	0000-2400	800HA2A	Y 23.0 DBW	ND	023E03 63N06	20 KM	310.0000 KHZ 415.5 526.0 KHZ	
50067 SUP	FNL	KEMI 024E35 65N46	AL RC G	0000-2400	800HA2A	Y 23.0 DBW	ND	024E35 65N46	20 KM	308.0000 KHZ 415.5 526.0 KHZ	
50069 SUP	FNL	KUOPIO 027E51 62N57	AL RC KUR	0000-2400	100HA1A	X 36.0 DBW	ND	027E51 62N57	90 KM	310.0000 KHZ 415.5 526.0 KHZ	
50070 SUP	FNL	MARIEHAMN 019E55 60N08	AL RC S	0000-2400	800HA2A	Y 23.0 DBW	ND	019E55 60N08	20 KM	305.0000 KHZ 415.5 526.0 KHZ	
50071 SUP	FNL	OULU 025E32 64N53	AL RC TP	0000-2400	800HA2A	Y 23.0 DBW	ND	025E32 64N53	50 KM	290.0000 KHZ 415.5 526.0 KHZ	
50072 SUP	FNL	OULU 025E24 64N55	AL RC C	0000-2400	800HA2A	Y 23.0 DBW	ND	025E24 64N55	20 KM	310.0000 KHZ 415.5 526.0 KHZ	
50074 SUP	FNL	ROVANIEMI 025E52 66N35	AL RC R	0000-2400	800HA2A	Y 23.0 DBW	ND	025E52 66N35	20 KM	306.0000 KHZ 415.5 526.0 KHZ	
50090 MOD	FNL	MENKIJARVI 023E31 62N57	AL RC MEN	0000-2400	800HA2A	X 36.0 DBW	ND	023E31 62N57	50 KM	415.5 526.0 KHZ	
50091 MOD	FNL	NUMMELA 024E18 60N20	AL RC NUM	0000-2400	800HA2A	X 36.0 DBW	ND	024E18 60N20	30 KM	415.5 526.0 KHZ	
50092 MOD	FNL	ORITKARI 025E28 64N59	AL RC ORI	0000-2400	800HA2A	X 36.0 DBW	ND	025E28 64N59	30 KM	415.5 526.0 KHZ	
50093 MOD	FNL	PATTIJOKI 024E42 64N41	AL RC PAT	0000-2400	800HA2A	X 36.0 DBW	ND	024E42 64N41	50 KM	415.5 526.0 KHZ	
50095 MOD	FNL	PIIKAJARVI 022E12 61N15	AL RC PII	0000-2400	800HA2A	X 36.0 DBW	ND	022E12 61N15	20 KM	415.5 526.0 KHZ	
50099 MOD	FNL	SELANPAA 026E48 61N04	AL RC SEL	0000-2400	800HA2A	X 36.0 DBW	ND	026E48 61N04	30 KM	415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50102 MOD	FNL	TERVOLA 024E51 66N06	AL RC TER	0000-2400	800HA2A	X 36.0 DBW	ND	024E51 66N06	30 KM	415.5 526.0 KHZ	
50105 MOD	FNL	WREDEBY 026E45 60N40	AL RC WRE	0000-2400	800HA2A	X 36.0 DBW	ND	026E45 60N40	30 KM	415.5 526.0 KHZ	
50819 SUP	G	PLATFORM INDE J 002E38 53N22	AL RC UJ	0000-2400	850HA2A	X 03.0 DBW	ND	002E38 53N22	37 KM	579.5000 KHZ 415.0 526.0 KHZ	1354
51057 ADD	GHA	TAMALE 000W53 09N26	AL RC TL	0000-2400	2K10A2A	Y 19.5 DBW	ND	000W53 09N26	25 KM	415.0000 KHZ 415.0 526.0 KHZ	
51062 MOD	GHA	ADA 000E32 05N52	AL RC DA	0000-2400	2K04A2A	Y 19.5 DBW	ND	000E32 05N52	25 KM	348.0000 KHZ 415.0 526.0 KHZ	
51063 MOD	GHA	KUMASI 001W37 06N43	AL RC SI	0000-2400	2K04A2A	Y 34.5 DBW	ND	001W37 06N43	250 KM	405.0000 KHZ 415.0 526.0 KHZ	
51064 MOD	GHA	TAMALE 000W52 09N24	AL RC LE	0000-2400	2K04A2A	Y 34.5 DBW	ND	000W52 09N24	250 KM	342.0000 KHZ 415.0 526.0 KHZ	
51065 MOD	GHA	TAKORADI 001W45 04N54	AL RC TK	0000-2400	2K04A2A	Y 34.5 DBW	ND	001W45 04N54	250 KM	340.0000 KHZ 415.0 526.0 KHZ	
51066 MOD	GHA	ACCRA 000W08 05N40	AL RC AA	0000-2400	2K04A2A	Y 34.5 DBW	ND	000W08 05N40	250 KM	361.0000 KHZ 415.0 526.0 KHZ	
51067 MOD	GHA	ACCRA 000W10 05N37	AL RC	0000-2400	2K04A2A	Y 19.5 DBW	ND	000W10 05N37	25 KM	275.0000 KHZ 415.0 526.0 KHZ	
51068 MOD	GHA	ACCRA 000W54 05N34	AL RC AM	0000-2400	2K04A2A	Y 19.5 DBW	ND	000W54 05N34	25 KM	258.0000 KHZ 415.0 526.0 KHZ	
51069 MOD	GHA	KIMASI 000W20 05N52	AL RC KL	0000-2400	2K04A2A	Y 19.5 DBW	ND	000W20 05N52	25 KM	271.0000 KHZ 415.0 526.0 KHZ	
51070 MOD	GHA	KADE 005W55 06N40	AL RC KD	0000-2400	2K04A2A	Y 19.5 DBW	ND	005W55 06N40	25 KM	390.0000 KHZ 415.0 526.0 KHZ	
51071 MOD	GHA	NSAWAM 000W20 05N52	AL RC YY	0000-2400	2K04A2A	Y 19.5 DBW	ND	000W20 05N52	25 KM	409.0000 KHZ 415.0 526.0 KHZ	
51072 ADD	GHA	TAMALE 000W53 09N26	AL RC TL	0000-2400	2K10A2A	Y 19.5 DBW	ND	000W53 09N26	25 KM	415.0000 KHZ 415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50012 MOD	HNG	ZALAEGERSZEG 016E52 46N52	AL RC ZE	0500-1900	900HA2AAN	Y 17.0 DBW	ND	016E52 46N52	50 KM	423.0000 KHZ 415.5 526.0 KHZ	
50015 SUP	HNG	SZOMBATHELY 016E37 47N16	AL RC OR	0500-1900	900HA2AAN	Y 20.0 DBW	ND	016E37 47N16	100 KM	465.0000 KHZ 415.5 526.0 KHZ	
50016 MOD	HNG	BUDAORS 018E59 47N27	AL RC S	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	018E59 47N27	100 KM	526.0000 KHZ 415.5 526.0 KHZ	
50017 MOD	HNG	PUSZTAEGRES 018E31 46N52	AL RC PS	0000-2400	900HA2AAN	Y 17.0 DBW	ND	018E31 46N52	50 KM	484.0000 KHZ 415.5 526.0 KHZ	
50018 MOD	HNG	NAGYKORPAD 017E28 46N25	AL RC NP	0000-2400	900HA2AAN	Y 17.0 DBW	ND	017E28 46N25	50 KM	418.0000 KHZ 415.5 526.0 KHZ	
50913 MOD	HNG	IHAROS 017E06 46N20	AL RC IRS	0000-2400	2K10A2AAN	Y 23.0 DBW	ND	017E06 46N20	100 KM	435.0000 KHZ 415.0 526.0 KHZ	
50914 SUP	HNG	SAJOHIDVEG 021E00 48N00	AL RC SAG	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	021E00 48N00	100 KM	390.0000 KHZ 415.0 526.0 KHZ	
50915 SUP	HNG	KELEBIA 019E37 46N12	AL RC KEA	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E37 46N12	100 KM	409.0000 KHZ 415.0 526.0 KHZ	
50916 SUP	HNG	DUNAKESZI 019E09 47N37	AL RC DUN	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E09 47N37	100 KM	322.0000 KHZ 415.0 526.0 KHZ	
50917 SUP	HNG	MONOR 019E25 47N20	AL RC MNR	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E25 47N20	100 KM	288.0000 KHZ 415.0 526.0 KHZ	
50918 SUP	HNG	TAPIOSAP 019E27 47N30	AL RC TPS	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E27 47N30	100 KM	306.0000 KHZ 415.0 526.0 KHZ	
50919 SUP	HNG	PUSZTASZABOLCS 018E36 47N09	AL RC PTB	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	018E36 47N09	100 KM	386.0000 KHZ 415.0 526.0 KHZ	
50920 MOD	HNG	SAGVAR 018E07 46N50	AL RC SVR	0000-2400	2K10A2AAN	Y 17.0 DBW	ND	018E07 46N50	50 KM	348.0000 KHZ 415.0 526.0 KHZ	
51058 MOD	KEN	KUWAIT INTL AEROPORT 047E59 29N23	AL RC	0000-2400	2K04A2A	Y 27.0 DBW	ND	047E59 29N53	150 KM	415.0 435.0 KHZ	
51059 MOD	KEN	NAIROBI 036E49 01S17	AL RC	0000-2400	2K04A2A	Y 27.0 DBW	ND	036E49 01S17	150 KM	418.0 418.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51060	KEN	NAIROBI	AL RC	0000-2400	2K04A2A	Y 27.0 DBW	ND	036E49 01S17	150 KM		
MOD		036E49 01S17								429.0 429.0 KHZ	
51061	KEN	NAIROBI	AL RC	0000-2400	2K04A2A	Y 27.0 DBW	ND	036E49 01S17	150 KM		
MOD		036E49 01S17								434.0 434.0 KHZ	
51082	LBY	GIALLO	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	021E26 28N42	300 KM	426.0000 KHZ	
ADD		021E26 28N42	GAL							KHZ	
51083	LBY	AL SARIR	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	022E30 27N39	300 KM	435.0000 KHZ	
ADD		022E30 27N39	SAR							KHZ	
51084	LBY	EL ZAWIA	AL RC	0000-2400			ND	012E32 32N46	100 KM	423.0000 KHZ	
ADD		012E38 32N46	ZAW							KHZ	
51085	LBY	GHAT	AL RC	0000-2400	2K00A2A		ND	010E01 25N11	250 KM	435.0000 KHZ	
ADD		010E01 25N11	GAT							KHZ	
51086	LBY	WARE HOUSE 59E	AL RC	0000-2400	2K00A2A	Y 25.0 DBW	ND	021E26 28N40	100 KM	417.0000 KHZ	
ADD		021E26 28N40	OB							KHZ	
51087	LBY	NALUT	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	010E59 31N32	100 KM	429.0000 KHZ	
ADD		010E59 31N52	NLT							KHZ	
51088	LBY	TRIPOLI	AL RC	0000-2400	2K00A2A	Y 25.0 DBW	ND	013E07 32N00	100 KM	435.0000 KHZ	
ADD		013E07 32N00	D							KHZ	
51089	LBY	SABHA	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	014E28 27N01	300 KM	429.0000 KHZ	
ADD		014E28 27N01	SEB							KHZ	
51090	LBY	AL ZAWARA	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	013E10 12N10	300 KM	432.0000 KHZ	
ADD		012E10 31N10	ZAWR							KHZ	
51091	LBY	TAZERBO	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	021E06 25N40	300 KM	423.0000 KHZ	
ADD		021E06 25N40	TZR							KHZ	
51092	LBY	SABHA A2A	AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	018E07 28N13	300 KM	415.0000 KHZ	
ADD		018E07 28N13	PRB							KHZ	
51093	LBY	WARE HOUSE 59A	AL RC	0000-2400	2K00A2A	Y 25.0 DBW	ND	019E56 28N18	100 KM	226.0000 KHZ	
ADD		019E56 28N18	OR							KHZ	
50661	MLT	LUCA	AL RC	0000-2400	1K00N0N	X 31.5 DBW	ND	014E10 35N05	300 KM	428.0000 KHZ	
MOD		014E10 35N05								415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50573	POL	CHRCYNNO	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	020E50 52N30	45 KM	419.0000 KHZ	
MOD		020E50 52N30	CHM							415.5 526.0 KHZ	
50574	POL	CIECHANOW	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	020E38 52N51	75 KM	427.0000 KHZ	
MOD		020E38 52N51	CSK							415.5 526.0 KHZ	
50575	POL	CZERWIENSK	AL RC	0000-2400	800HA2AAN	Y 18.0 DBW	ND	015E25 52N02	60 KM	421.0000 KHZ	
MOD		015E25 52N02	C							415.5 526.0 KHZ	
50576	POL	ELBLAG	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	019E25 54N08	80 KM	423.0000 KHZ	
MOD		019E25 54N08	EBG							415.5 526.0 KHZ	
50577	POL	GRUDZIADZ	AL RC	0000-2400	800HA2AAN	Y 17.0 DBW	ND	018E45 53N28	50 KM	422.0000 KHZ	
MOD		018E45 53N28	M							415.5 526.0 KHZ	
50579	POL	KRAKOW	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	020E12 50N05	75 KM	522.0000 KHZ	
MOD		020E12 50N05	KPB							415.5 526.0 KHZ	
50580	POL	KROSNO	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	021E44 49N41	45 KM	434.0000 KHZ	
MOD		021E44 49N41	KMO							415.5 526.0 KHZ	
50581	POL	MANIECZKI	AL RC	0000-2400	800HA2AAN	Y 22.0 DBW	ND	016E56 52N07	120 KM	511.0000 KHZ	
MOD		016E56 52N07	EG							415.5 526.0 KHZ	
50583	POL	NOWY SACZ	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	020E38 49N45	75 KM	514.0000 KHZ	
MOD		020E38 49N45	NSL							415.5 526.0 KHZ	
50584	POL	OSIELCINY	AL RC	0000-2400	800HA2AAN	Y 18.0 DBW	ND	018E43 52N38	50 KM	516.0000 KHZ	
MOD		018E43 52N38	W							415.5 526.0 KHZ	
50585	POL	POZNAN	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	017E02 52N56	75 KM	416.0000 KHZ	
MOD		017E02 52N56	PAN							415.5 526.0 KHZ	
50586	POL	POZNAN LAWICA	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	016E57 52N24	80 KM	429.0000 KHZ	
MOD		016E57 52N24	POZ							415.5 526.0 KHZ	
50589	POL	RYBNIK	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	018E38 50N04	45 KM	426.0000 KHZ	
MOD		018E38 50N04	RGE							415.5 526.0 KHZ	
50590	POL	SLUPSK	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	017E05 54N28	80 KM	000.0000 KHZ	
MOD		017E05 54N28	SPK							415.5 526.0 KHZ	
50591	POL	STALOWA WOLA	AL RC	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	022E00 50N38	90 KM	417.0000 KHZ	
MOD		022E00 50N38	SWT							415.5 526.0 KHZ	
50592	POL	STRZELIN	AL RC	0000-2400	800HA2AAN	Y 20.0 DBW	ND	016E55 51N18	75 KM	435.0000 KHZ	
MOD		016E55 51N18	AK							415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50595 MOD	POL	WROCLAW 017E00 51N13	AL RC WMG	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	017E00 51N13	45 KM	419.0000 KHZ 415.5 526.0 KHZ	
50596 MOD	POL	ZAMOSC 023E12 50N42	AL RC ZME	0000-2400	2K00A2AAN	Y 20.0 DBW	ND	023E12 50N42	75 KM	524.0000 KHZ 415.5 526.0 KHZ	
50383 SUP	POR	TANCOS 008W16 39N29	AL RC TNC	0000-2400	100HA1A	X 20.0 DBW	ND	008W16 39N29	180 KM	415.0 425.0 KHZ	465
50837 MOD	POR	ALVERCA 009W02 38N54	AL RC AVR	0000-2400	100HA1A	X 14.0 DBW	ND	009W02 38N54	65 KM	415.0 526.0 KHZ	1356
50726 MOD	ROU	BACAU 026E54 46N31	AL RC B	0000-2400	2K14A2A	Y 26.0 DBW	ND	026E54 46N31	46 KM	520.0000 KHZ 415.5 526.0 KHZ	
50728 SUP	ROU	BRASOV 025E41 45N43	AL RC BRV	0000-2400	2K14A2A	Y 30.0 DBW	ND	025E41 45N43	185 KM	290.0000 KHZ 415.5 526.0 KHZ	
50729 MOD	ROU	BUCURESTI/BANEASA 026E02 44N29	AL RC BSW	0000-2400	2K14A2A	Y 23.0 DBW	ND	026E02 44N29	28 KM	521.0000 KHZ 415.5 526.0 KHZ	
50730 MOD	ROU	BUCURESTI/BANEASA 026E04 44N30	AL RC B	0000-2400	2K14A2A	Y 23.0 DBW	ND	026E04 44N30	28 KM	428.0000 KHZ 415.5 526.0 KHZ	
50731 MOD	ROU	BUCURESTI/BANEASA 026E08 44N30	AL RC A	0000-2400	2K14A2A	Y 23.0 DBW	ND	026E08 44N30	28 KM	300.0000 KHZ 415.5 526.0 KHZ	
50732 MOD	ROU	BUCURESTI/BANEASA 026E09 44N31	AL RC BSE	0000-2400	2K14A2A	Y 23.0 DBW	ND	026E09 44N31	28 KM	256.0000 KHZ 415.5 526.0 KHZ	
50735 SUP	ROU	CLUJ-NAPOCA 023E40 46N47	AL RC I	0000-2400	2K14A2A	Y 23.0 DBW	ND	023E40 46N47	46 KM	300.0000 KHZ 415.5 526.0 KHZ	
50736 MOD	ROU	CLUJ-NAPOCA 023E41 46N47	AL RC CFA	0000-2400	2K14A2A	Y 26.0 DBW	ND	023E41 46N47	148 KM	424.0000 KHZ 415.5 526.0 KHZ	
50737 MOD	ROU	CLUJ-NAPOCA 023E43 46N46	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	023E43 46N46	28 KM	415.5 526.0 KHZ	
50738 MOD	ROU	CLUJ-NAPOCA 023E48 46N47	AL RC	0000-2400	2K14A2A	Y 30.0 DBW	ND	023E48 46N47	46 KM	415.5 526.0 KHZ	
50740 MOD	ROU	CONSTANTA 028E29 44N23	AL RC CKN	0000-2400	2K14A2A	Y 26.0 DBW	ND	028E29 44N23	148 KM	510.0000 KHZ 415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50741 MOD	ROU	CONSTANTA 028E31 44N25	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	028E31 44N25	28 KM	415.5 526.0 KHZ	
50742 MOD	ROU	CONSTANTA 028E37 44N28	AL RC	0000-2400	2K14A2A	Y 30.0 DBW	ND	028E37 44N28	93 KM	415.5 526.0 KHZ	
50743 MOD	ROU	CRAIOVA 023E53 44N19	AL RC CVA	0000-2400	2K14A2A	Y 26.0 DBW	ND	023E53 44N19	148 KM	432.0000 KHZ 415.5 526.0 KHZ	
50744 MOD	ROU	CRAIOVA 023E55 44N19	AL RC E	0000-2400	2K14A2A	Y 26.0 DBW	ND	023E55 44N19	46 KM	415.5 526.0 KHZ	
50745 MOD	ROU	CRAIOVA 023E59 44N19	AL RC EA	0000-2400	2K14A2A	Y 26.0 DBW	ND	023E59 44N19	46 KM	310.0000 KHZ 415.5 526.0 KHZ	
50746 MOD	ROU	FOCSANI 027E12 45N41	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	027E12 45N41	148 KM	415.5 526.0 KHZ	
50747 SUP	ROU	GALATI 027E56 45N25	AL RC GLT	0000-2400	2K14A2A	Y 30.0 DBW	ND	027E56 45N25	148 KM	413.5000 KHZ 415.5 526.0 KHZ	
50749 MOD	ROU	SATU MARE 022E52 47N38	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	022E52 47N38	46 KM	415.5 526.0 KHZ	
50750 MOD	ROU	SATU MARE 022E53 47N41	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	022E53 47N41	28 KM	415.5 526.0 KHZ	
50752 MOD	ROU	SUCEAVA 026E24 47N45	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	026E24 47N45	46 KM	415.5 526.0 KHZ	
50753 SUP	ROU	TANDAREI 027E40 44N39	AL RC TND	0000-2400	2K14A2A	Y 30.0 DBW	ND	027E40 44N39	185 KM	304.0000 KHZ 415.5 526.0 KHZ	
50756 MOD	ROU	TIMISOARA 021E18 45N49	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	021E18 45N49	28 KM	415.5 526.0 KHZ	
50758 MOD	ROU	TULCEA 028E44 44N59	AL RC TLC	0000-2400	2K14A2A	Y 30.0 DBW	ND	028E44 44N59	96 KM	286.0000 KHZ 415.5 526.0 KHZ	
50759 MOD	ROU	TULCEA 028E43 45N04	AL RC C	0000-2400	2K14A2A	Y 23.0 DBW	ND	028E43 45N04	28 KM	415.5 526.0 KHZ	
51036 MOD	ROU	ARAD 021E12 46N11	AL RC ARD	0000-2400	2K14A2A	Y 30.0 DBW	ND	021E12 46N11	93 KM	256.0000 KHZ 415.0 526.0 KHZ	
51080 MOD	TCD	SARH 018E23 09N09	AL RC FA	0000-2400	2K04A2AAN	Y 16.0 DBW	ND	018E23 09N09	200 KM	415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51081 MOD	TCD	PALA	014E56 09N23	AL RC LP	0000-2400	2K04A2AAN	Y 20.0 DBW	ND	014E56 09N23	180 KM	415.0 526.0 KHZ	
50204 SUP	TCH	BENESOV	014E44 49N47	AL RC E	0000-2400	2K40A2A	Y 26.0 DBW	ND	014E44 49N47	150 KM	466.0000 KHZ 1190 415.5 526.0 KHZ	
50207 MOD	TCH	BRNO-MEDLANKY	016E35 49N13	AL RC LZ	0000-2400	2K40A2A	Y 26.0 DBW	ND	016E35 49N13	90 KM	519.0000 KHZ 1190 415.5 526.0 KHZ	
50208 MOD	TCH	CHOCEN	016E08 50N00	AL RC PK	0000-2400	2K10A2A	Y 26.0 DBW	ND	016E08 50N00	90 KM	432.0000 KHZ 1190 415.5 526.0 KHZ	
50209 SUP	TCH	CESKA LIPA	014E36 50N39	AL RC ND	0000-2400	2K40A2A	Y 26.0 DBW	ND	014E36 50N39	150 KM	444.0000 KHZ 1190 415.5 526.0 KHZ	
50210 MOD	TCH	DESNA	015E33 48N58	AL RC OKF	0000-2400	2K40A2A	Y 18.0 DBW	ND	015E33 48N58	90 KM	424.0000 KHZ 1190 415.5 526.0 KHZ	
50211 MOD	TCH	FRYDLANT	015E02 50N54	AL RC OKX	0000-2400	2K40A2A	Y 18.0 DBW	ND	015E02 50N54	90 KM	415.0000 KHZ 1190 415.5 526.0 KHZ	
50212 MOD	TCH	HOSIN	014E29 49N02	AL RC MA	0000-2400	2K40A2A	Y 14.0 DBW	ND	014E29 49N02	45 KM	421.0000 KHZ 1190 415.5 526.0 KHZ	
50213 MOD	TCH	JAROMER	015E56 50N19	AL RC UR	0000-2400	2K40A2A	Y 26.0 DBW	ND	015E56 50N19	90 KM	422.0000 KHZ 1190 415.5 526.0 KHZ	
50214 SUP	TCH	JIHLAVA	015E36 49N24	AL RC P	0000-2400	2K40A2A	Y 26.0 DBW	ND	015E36 49N24	150 KM	453.0000 KHZ 1190 415.5 526.0 KHZ	
50218 MOD	TCH	MLADA BOLESLAV	014E59 50N21	AL RC DZ	0000-2400	2K40A2A	Y 26.0 DBW	ND	014E59 50N21	90 KM	514.5000 KHZ 1190 415.5 526.0 KHZ	
50221 SUP	TCH	SENICA	017E18 48N39	AL RC RP	0000-2400	2K40A2A	Y 26.0 DBW	ND	017E18 48N39	150 KM	477.0000 KHZ 1190 415.5 526.0 KHZ	
50222 SUP	TCH	SOBESLAV	014E46 49N14	AL RC AL	0000-2400	2K40A2A	Y 26.0 DBW	ND	014E46 49N14	150 KM	488.0000 KHZ 1190 415.5 526.0 KHZ	
50225 MOD	TCH	ZILINA	018E36 49N14	AL RC Z	0000-2400	2K40A2A	Y 14.0 DBW	ND	018E36 49N14	45 KM	420.0000 KHZ 1190 415.5 526.0 KHZ	
50861 SUP	TCH	BRATISLAVA	017E18 48N13	AL RC OKR	0000-2400	2K10A2A	Y 20.0 DBW	ND	017E18 48N13	150 KM	391.0000 KHZ 415.0 526.0 KHZ	
50862 SUP	TCH	BRATISLAVA/IVANKA	017E18 48N07	AL RC OB	0000-2400	2K10A2A	Y 20.0 DBW	ND	017E18 48N07	45 KM	330.0000 KHZ 415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50864	TCH	BRNO		AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	016E46 49N09	90 KM	368.0000 KHZ	
SUP			016E46 49N09	BNO							415.0 526.0 KHZ	
50865	TCH	BRNO-MEDLANKY		AL RC	0000-2400	2K10A2A	Y 26.0 DBW	ND	016E46 49N09	150 KM	458.0000 KHZ	
SUP			016E46 49N09	BM							415.0 526.0 KHZ	
50866	TCH	CHEB		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	012E24 50N04	150 KM	317.0000 KHZ	
SUP			012E24 50N04	OKG							415.0 526.0 KHZ	
50867	TCH	DUBOVE		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	018E48 48N52	90 KM	310.0000 KHZ	
SUP			018E48 48N52	DBV							415.0 526.0 KHZ	
50868	TCH	HOLESOV		AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	017E35 49N19	45 KM	473.0000 KHZ	
SUP			017E35 49N19	HO							415.0 526.0 KHZ	
50869	TCH	KARLOVY VARY		AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	013E01 50N10	45 KM	365.0000 KHZ	
SUP			013E01 50N10	KVY							415.0 526.0 KHZ	
50870	TCH	KARLOVY VARY		AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	012E57 50N12	45 KM	669.0000 KHZ	
SUP			012E57 50N12	L							415.0 526.0 KHZ	
50871	TCH	KOSICE		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E14 48N38	45 KM	206.0000 KHZ	
SUP			021E14 48N38	K							415.0 526.0 KHZ	
50872	TCH	KOSTOLANY		AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	017E43 48N31	45 KM	669.0000 KHZ	
SUP			017E43 48N31	KST							415.0 526.0 KHZ	
50876	TCH	NITRA		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	018E03 48N18	90 KM	398.0000 KHZ	
SUP			018E03 48N18	NIT							415.0 526.0 KHZ	
50877	TCH	OSTRAVA		AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	018E12 49N49	150 KM	363.0000 KHZ	
SUP			018E12 49N49	OTA							415.0 526.0 KHZ	
50878	TCH	PIESTANY		AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	017E49 48N36	45 KM	297.0000 KHZ	
SUP			017E49 48N36	C							415.0 526.0 KHZ	
50879	TCH	PIESTANY		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	017E49 48N34	90 KM	615.0000 KHZ	
SUP			017E49 48N34	CN							415.0 526.0 KHZ	
50880	TCH	PLZEN		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E22 49N55	90 KM	436.0000 KHZ	
SUP			013E22 49N55	VC							415.0 526.0 KHZ	
50881	TCH	POLNA		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	015E45 49N27	150 KM	377.0000 KHZ	
SUP			015E45 49N27	POL							415.0 526.0 KHZ	
50882	TCH	POPRAD		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	020E21 49N04	150 KM	317.0000 KHZ	
SUP			020E21 49N04	PPD							415.0 526.0 KHZ	
50884	TCH	PRAHA/NORTH		AL RC	0000-2400	2K10A2A	Y 16.0 DBW	ND	014E22 50N09	45 KM	356.0000 KHZ	
SUP			014E22 50N09	PR							415.0 526.0 KHZ	
50887	TCH	PRAHA/RUZYNE		AL RC	0000-2400	2K10A2A	Y 23.0 DBW	ND	014E36 50N09	150 KM	300.0000 KHZ	
SUP			014E36 50N09	KD							415.0 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50888 SUP	TCH	PRAHA/RUZYNE 014E22 50N03	AL RC PG	0000-2400	2K10A2A	Y 16.0 DBW	ND	014E22 50N03	45 KM	307.0000 KHZ 415.0 526.0 KHZ	
50889 SUP	TCH	RAKOVNIK 013E42 50N06	AL RC RAK	0000-2400	2K10A2A	Y 19.0 DBW	ND	013E42 50N06	90 KM	386.0000 KHZ 415.0 526.0 KHZ	
50890 SUP	TCH	ROUDNICE 014E13 50N27	AL RC RCE	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E13 50N27	90 KM	394.0000 KHZ 415.0 526.0 KHZ	
50892 SUP	TCH	SLIAC 019E08 48N30	AL RC FS	0000-2400	2K10A2A	Y 20.0 DBW	ND	019E08 48N30	90 KM	412.0000 KHZ 415.0 526.0 KHZ	
50893 SUP	TCH	STUROVO 018E41 47N50	AL RC OKI	0000-2400	2K10A2A	Y 20.0 DBW	ND	018E41 47N50	150 KM	378.0000 KHZ 415.0 526.0 KHZ	
50894 SUP	TCH	TREBOVA/MORAVSKA 016E41 49N48	AL RC TBV	0000-2400	2K10A2A	Y 18.0 DBW	ND	016E41 49N48	150 KM	492.0000 KHZ 415.0 526.0 KHZ	
50895 SUP	TCH	VLASIM 015E04 49N42	AL RC VLM	0000-2400	2K10A2A	Y 18.0 DBW	ND	015E04 49N42	90 KM	382.0000 KHZ 415.0 526.0 KHZ	
50896 MOD	TCH	VODOCHODY 014E29 50N12	AL RC VO	0000-2400	2K10A2A	Y 23.0 DBW	ND	014E29 50N12	90 KM	333.0000 KHZ 415.0 526.0 KHZ	
50897 SUP	TCH	VOZICE 014E53 49N32	AL RC VOZ	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E53 49N32	150 KM	322.0000 KHZ 415.0 526.0 KHZ	
50898 SUP	TCH	ZILINA 018E31 49N12	AL RC ZLA	0000-2400	2K10A2A	Y 19.0 DBW	ND	018E31 49N12	45 KM	404.0000 KHZ 415.0 526.0 KHZ	
50628 MOD	TUN	CAP BON PHARE 011E03 37N04	AL RC	0000-2400	100HA1A	X 26.0 DBW	ND	011E03 37N04	100 KM	370.0000 KHZ 415.5 526.0 KHZ	
50629 MOD	TUN	EL ATTAYA PHARE 011E18 34N44	AL RC	0000-2400	100HA2A	Y 26.0 DBW	ND	011E18 34N44	60 KM	308.0000 KHZ 415.5 526.0 KHZ	
50630 MOD	TUN	GABES AEROPHARE 010E06 33N53	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E06 33N53	60 KM	267.0000 KHZ 415.5 526.0 KHZ	
50632 MOD	TUN	TUNIS CARTHAGE AEROP 010E19 36N49	AL RC	0000-2400	100HA2A	Y 30.0 DBW	ND	010E19 36N49	25 KM	385.0000 KHZ 1332 415.5 526.0 KHZ	
50633 MOD	TUN	BIZERTE 009E48 37N15	AL RC	0000-2400	100HA2A	Y 24.8 DBW	ND	009E48 37N15	50 KM	400.0000 KHZ 415.5 526.0 KHZ	
50634 MOD	TUN	CAP BLANC 009E50 37N20	AL RC	0000-2400	100HA2A	Y 20.0 DBW	ND	009E50 37N20	60 KM	310.3000 KHZ 415.5 526.0 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50639 MOD	TUN	SFAX EL MAOU 010E41 34N43	AL RC	0000-2400	100HA1A	X 13.0 DBW	ND	010E41 34N43	60 KM	245.0000 KHZ 415.5 526.0 KHZ	
50641 MOD	TUN	GAFSA 008E48 34N25	AL RC	0000-2400	100HA2A	Y 17.0 DBW	ND	008E48 34N25	60 KM	375.0000 KHZ 415.5 526.0 KHZ	1546
51096 ADD	TUN	DJEDEIDA 009E56 36N50	AL RC DJA	0000-2400	100HA2A	Y 14.0 DBW	ND	009E56 36N50	100 KM		KHZ
50673 SUP	TUR	ESKISEHIR 030E45 39N47	AL RC ESK	0000-2400	2K04A2AAN	Y 26.0 DBW	ND	030E45 39N47	140 KM	420.0000 KHZ 415.5 526.0 KHZ	
50814 MOD	TUR	ANKARA/CUBUK 033E06 40N14	AL RC BUK	0000-2400	2K10A2AAN	X 20.0 DBW	ND	033E06 40N14	140 KM	425.0000 KHZ 415.0 526.0 KHZ	1355
50191 MOD	UKR URS	TCHERNOVTSY 025E55 48N20	AL RC NW	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	025E55 48N20	45 KM	425.0 425.0 KHZ	297
50200 MOD	UKR URS	DNEPROPETROVSK 035E00 48N29	AL RC BB	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	035E00 48N29	90 KM	434.0 434.0 KHZ	315
50147 MOD	URS	KALININGRAD 020E30 54N42	AL RC KD	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	020E30 54N42	45 KM	432.0 432.0 KHZ	244
50154 MOD	URS	ROSTOV NA DONU 039E24 47N13	AL RC FI	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	039E24 47N13	90 KM	435.0 435.0 KHZ	247
50161 MOD	URS	VYBORG 028E46 60N42	AL RC BR	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	028E46 60N42	45 KM	511.0 511.0 KHZ	254
50170 MOD	URS	NUKHA 047E10 41N12	AL RC NH	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	047E10 41N12	45 KM	517.0 517.0 KHZ	258
50171 MOD	URS	MUKHRANI 044E34 41N55	AL RC DF	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	044E34 41N55	90 KM	520.0000 KHZ 520.0 520.0 KHZ	259
50174 SUP	URS	LENINAKAN 043E51 40N49	AL RC LS	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	043E51 40N49	150 KM	522.0 522.0 KHZ	261
50177 MOD	URS	GROZNYI 045E40 43N20	AL RC MT	0000-2400	2K10A2AAN	Y 30.0 DBW	ND	045E40 43N20	45 KM	524.0 524.0 KHZ	263

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50297 SUP	YUG	MARIBOR 015E42 46N28	AL RC MI	0000-2400	2K10A2A	Y 17.8 DBW	ND	015E42 46N28	25 KM	422.0000 KHZ 422.0 422.0 KHZ	325
50301 MOD	YUG	POZAREVAC 021E09 44N37	AL RC POZ	0000-2400	2K10A2A	Y 21.7 DBW	ND	021E09 44N37	30 KM	428.0000 KHZ 428.0 428.0 KHZ	325
50302 MOD	YUG	DOMANOVICI 017E51 43N08	AL RC DNC	0000-2400	2K10A2A	Y 23.0 DBW	ND	017E51 43N08	15 KM	428.0000 KHZ 428.0 428.0 KHZ	325
50303 MOD	YUG	OHRID 020E40 41N13	AL RC VN	0000-2400	2K10A2A	Y 19.0 DBW	ND	020E40 41N13	50 KM	432.0000 KHZ 432.0 432.0 KHZ	325
50305 MOD	YUG	KRUSEVAC 021E20 43N36	AL RC KRS	0000-2400	2K10A2A	Y 21.7 DBW	ND	021E20 43N36	90 KM	435.0000 KHZ 435.0 435.0 KHZ	325
50306 MOD	YUG	SARAJEVO 018E27 43N56	AL RC SAR	0000-2400	2K10A2A	Y 24.7 DBW	ND	018E27 43N56	90 KM	506.0000 KHZ 506.0 506.0 KHZ	325
50307 MOD	YUG	SKOPJE 021E42 41N44	AL RC BU	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E42 41N44	30 KM	509.0000 KHZ 509.0 509.0 KHZ	325
50308 SUP	YUG	DOLSKO 014E41 46N06	AL RC DSO	0000-2400	2K10A2A	Y 23.0 DBW	ND	014E41 46N06	50 KM	509.0000 KHZ 509.0 509.0 KHZ	325
50309 SUP	YUG	VRSAC 021E35 45N15	AL RC VAC	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E35 45N15	50 KM	511.0000 KHZ 511.0 511.0 KHZ	325
50310 SUP	YUG	LJUBLJANA 014E34 46N10	AL RC MG	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E34 46N10	25 KM	513.0000 KHZ 513.0 513.0 KHZ	325
50426 MOD	YUG	OHRID 020E49 41N20	AL RC IZD	0000-2400	2K10A2A	Y 19.0 DBW	ND	020E40 41N23	25 KM	417.0000 KHZ 417.0 417.0 KHZ	325
50800 MOD	YUG	VRSAC 021E35 45N15	AL RC VRA	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E35 45N15	25 KM	426.0000 KHZ 415.0 526.0 KHZ	

ANNEX 5

REMARKS

Supplied by the administrations in relation to their requirements

1543
ADD

This frequency is in use. It has been notified for the Master International Frequency Register. We request its replacement by the nearest frequency in the Plan.

1544
ADD

- MOD on NDB register computer print-out 85.03.04.

- Frequency 443 kHz replacing 450 kHz for public correspondence and not NDB.

1545
ADD

The frequency 1 672.40 kHz to be changed to 1 699.4 kHz.

1546
ADD

Frequency assigned to Touzeur (419 kHz) may be assigned to this station.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Addendum 2 to
Document 14-E
1 March 1985
Original: English/
French/
Spanish

COMMITTEE 5

This Addendum contains the information received by the Board, in response to IFRB Circular-letter No. 554 of 8 September 1983, between the 11 February 1985 (date of establishment of Addendum 1 and Document 14) and 28 February 1985. The presentation of the Annexes is the same as that used in Document 14.

The requirements are presented according to the following categories (with symbols used for identification appearing below the IFRB Serial Number):

MOD: **Modification to a requirement published in Document 14**

SUP: **Suppression of a requirement published in Document 14**

ADD: **Requirement received or completed after the 15 October 1984**

INCPL: **Requirement for which the Board received incomplete information**

T. BØE
Chairman of Committee 5

Annexes: 5

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX 1

Explanation of the symbols included in the list in Annex 2

IFRB NO.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the Administration submitting the requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmitting antenna in degrees and minutes.
CL.	Class of station, FC = Coast Station.
NAT.	Nature of service.
CALL-SIGN	Call sign to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
OP-MOD	Mode of operation: simplex or duplex.
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antenna, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antenna : ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area : the geographical coordinates of the center and value of the radius; In case of a service area defined by points : the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

ANNEXE 2 - ANNEX 2 - ANEXO 2

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 1
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2844	AFS	LUDERITZ		FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38	400 KM		
ADD			015E04 26S38		DUPLEX						1711.40 KHZ	
2848	AFS	LUDERITZ		FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38	400 KM		
ADD			015E04 26S38		DUPLEX						1701.40 KHZ	
2850	AFS	LUDERITZ		FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38	400 KM		
ADD			015E04 26S38		DUPLEX						1751.40 KHZ	
2851	AFS	LUDERITZ		FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	015E04 26S38	400 KM		
ADD			015E04 26S38		DUPLEX						1766.40 KHZ	
2374	AGL	LUANDA		FC CP	0000-2400	100HA1A	X 36.9 DBW	ND	013E14 08S47	500 KM	440.0000 KHZ	1518
MOD			013E14 08S47	D3E	DUPLEX						435.50 KHZ	
2375	AGL	LUANDA		FC CP	0000-2400	100HA1A	X 36.9 DBW	ND	013E14 08S47	500 KM	449.5000 KHZ	1518
MOD			013E14 08S47	D3E	DUPLEX						435.50 KHZ	
2376	AGL	LUANDA		FC CP	0000-2400	100HA1A	X 36.9 DBW	ND	013E14 08S47	500 KM	517.0000 KHZ	1518
MOD			013E14 08S47	D3E	DUPLEX						435.50 KHZ	
2377	AGL	LUANDA		FC CP	0000-2400	100HA1A	X 36.9 DBW	ND	013E14 08S47	500 KM	526.0000 KHZ	1518
MOD			013E14 08S47	D3E	DUPLEX						435.50 KHZ	
2378	AGL	LUANDA		FC CP	0000-2400	340HF1B	X 36.9 DBW	ND	013E14 08S47	500 KM	1615.0000 KHZ	
MOD			013E14 08S47	D3E	DUPLEX						435.50 KHZ	
2379	AGL	LUANDA		FC CP	0000-2400	100HF1B	X 36.9 DBW	ND	013E14 08S47	500 KM	1624.0000 KHZ	
MOD			013E14 08S47	D3E	DUPLEX						435.50 KHZ	
2380	AGL	NAMIBE		FC CP	0000-2400	100HA1A	X 36.9 DBW	ND	012E09 15S11	500 KM		
MOD			012E09 15S11	D3G	DUPLEX						435.50 KHZ	
2381	AGL	NAMIBE		FC CP	0000-2400	2K80J3E	X 36.9 DBW	ND	012E09 15S11	500 KM		1517
MOD			012E09 15S11	D3G	DUPLEX						1607.00 KHZ	
2382	AGL	LOBITO		FC CP	0000-2400	100HA1A	X 36.9 DBW	ND	013E33 12S22	500 KM		
MOD			013E33 12S22	D3F	DUPLEX						435.50 KHZ	
2383	AGL	LOBITO		FC CP	0000-2400	2K80J3E	X 36.9 DBW	ND	013E33 12S22	500 KM		1517
MOD			013E33 12S22	D3F	DUPLEX						1607.00 KHZ	
2384	AGL	CABINDA		FC CP	0000-2400	100HA1A	X 36.9 DBW	ND	012E11 05S34	500 KM		
MOD			012E11 05S34	D3D3	DUPLEX						435.50 KHZ	
2385	AGL	CABINDA		FC CP	0000-2400	2K80J3E	X 36.9 DBW	ND	012E11 05S34	500 KM		1517
MOD			012E11 05S34	D3D3	DUPLEX						1607.00 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 2
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2386 MOD	AGL	SOYO 012E12 06S07	FC CP D3D	0000-2400 DUPLEX	100HA1A	X 36.9 DBW	ND	012E12 06S07 500 KM	435.50 KHZ	
2387 MOD	AGL	SOYO 012E12 06S07	FC CP D3D	0000-2400 DUPLEX	2K80J3E	X 36.9 DBW	ND	012E12 06S07 500 KM	1607.00 KHZ	1517
1608 MOD	ALB	VLORE PT RADIO 019E29 40N27	FC CP ZAV	0000-2400 SIMPLEX	100HA1AAN	X 33.0 DBW	ND	019E29 40N27 350 KM	460.0000 KHZ 435.50 KHZ	
1609 MOD	ALB	VLORE PT RADIO 019E29 40N27	FC CP ZAV	0000-2400 SIMPLEX	100HA1AAN	X 33.0 DBW	ND	019E29 40N27 350 KM	521.0000 KHZ 435.50 KHZ	
1610 MOD	ALB	DURRES PT RADIO 019E26 41N27	FC CP ZAD	0000-2400 SIMPLEX	100HA1AAN	X 33.0 DBW	ND	019E26 41N27 350 KM	460.0000 KHZ 435.50 KHZ	
1611 MOD	ALB	DURRES PT RADIO 019E26 41N27	FC CP ZAD	0000-2400 SIMPLEX	100HA1AAN	X 33.0 DBW	ND	019E26 41N27 350 KM	521.0000 KHZ 435.50 KHZ	
2734 ADD	ALB	DURRES PT RADIO 019E26 41N27	FC CP	0000-2400 DUPLEX	100HA1AAN	X 30.0 DBW	ND	019E26 41N27 400 KM	441.00 KHZ	1475
2735 ADD	ALB	VLORE PT RADIO 019E29 40N27	FC CP	0000-2400 DUPLEX	100HA1AAN	X 30.0 DBW	ND	019E29 40N27 400 KM	435.50 KHZ	1476
2736 ADD	ALB	SHENGJIN RADIO 019E35 41N49	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	019E35 41N49 200 KM	1636.40 KHZ	
2738 ADD	ALB	SARANDE RADIO 020E00 39N52	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	020E00 39N52 200 KM	1636.40 KHZ	
2710 ADD	ALG	BENI SAF RADIO 001W24 35N11	FC 7TF	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	001W24 35N11 200 KM	1734.00 KHZ	1477
2711 ADD	ALG	ARZEW RADIO 000W17 35N50	FC 7TW	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	000W17 35N50 200 KM	1641.00 KHZ	1478
2712 ADD	ALG	MOSTAGANEM RADIO 000E05 35N54	FC 7TM	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	000E05 35N54 200 KM	1671.00 KHZ	1479
2713 ADD	ALG	CHERCHELL RADIO 002E09 36N32	FC 7TH	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	002E09 36N32 200 KM	1644.00 KHZ	1480
2714 ADD	ALG	TIPAZA RADIO 002E27 36N33	FC 7TP	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	002E27 36N33 200 KM	1692.00 KHZ	1481

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2715	ALG	DELLYS RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	003E56 36N53	200 KM		1482
ADD		003E56 36N53	7TD	DUPLEX						1728.00 KHZ	
2716	ALG	AZEFFOUN RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	004E25 36N51	200 KM		1483
ADD		004E25 36N51	7TZ	DUPLEX						1698.00 KHZ	
2717	ALG	JIJEL	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	005E16 36N40	200 KM		1484
ADD		005E16 36N40	7TG	DUPLEX						1713.00 KHZ	
2718	ALG	COLLO RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	006E36 37N00	200 KM		1485
ADD		006E36 37N00	7TC	DUPLEX						1737.00 KHZ	
2719	ALG	SIKDA RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	006E54 36N53	200 KM		1486
ADD		006E54 36N53		DUPLEX						1701.00 KHZ	
2720	ALG	EL KALA RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	008E27 36N53	200 KM		1487
ADD		008E27 36N53	7TK	DUPLEX							
2721	ALG	BENI SAF RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	001W24 35N11	200 KM		1488
ADD		001W24 35N11	7TF	DUPLEX						1656.00 KHZ	
2722	ALG	ARZEW RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	000W17 35N50	200 KM		1489
ADD		000W17 35N50	7TW	DUPLEX						1665.00 KHZ	
2723	ALG	MOSTAGANEM RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	000E05 35N54	200 KM		1490
ADD		000E05 35N54	7TM	DUPLEX						1683.00 KHZ	
2724	ALG	CHERCHELL RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	002E09 36N32	200 KM		1491
ADD		002E09 36N32	7TH	DUPLEX						1668.00 KHZ	
2725	ALG	TIPAZA RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	002E27 36N33	200 KM		1492
ADD		002E27 36N33	7TP	DUPLEX						1716.00 KHZ	
2726	ALG	DELLYS RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	003E56 36N53	200 KM		1493
ADD		003E56 36N53	7TD	DUPLEX						1746.00 KHZ	
2727	ALG	AZEFFOUN RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	004E25 36N51	200 KM		1494
ADD		004E25 36N51	7TZ	DUPLEX						1773.00 KHZ	
2729	ALG	JIJEL	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	005E16 36N40	200 KM		1495
ADD		005E16 36N40	7TG	DUPLEX						1797.00 KHZ	
2730	ALG	COLLO RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	006E36 37N00	200 KM		1496
ADD		006E36 37N00	7TC	DUPLEX						1782.00 KHZ	
2732	ALG	SKIKDA RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	006E54 36N53	200 KM		1497
ADD		006E54 36N53		DUPLEX						1752.00 KHZ	
2733	ALG	EL KALA RADIO	FC	0000-2400	2K80J3E	X 20.0 DBW	ND	008E27 36N53	200 KM		1498
ADD		008E27 36N53	7TK	DUPLEX						1722.00 KHZ	
2775	AOE	EL AAIUN	FC CV	0000-2400	2K80J3E	X 27.0 DBW	ND	013W18 27N10	100 KM	1712.0000 KHZ	
ADD		013W18 27N10								1636.40 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
38 SUP	ASC G	ASCENSION 014W25 07S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND 014W25 07S56	320 KM	1606.50 KHZ	398
603 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND 028W38 38N32	750 KM	487.0000 KHZ 510.50 KHZ	135
604 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	100HA1A	X 34.7 DBW	ND 028W38 38N32	1200 KM	516.0000 KHZ 516.00 KHZ	136
1745 MOD	AZR POR	S MIGUEL 025W39 37N45	FC CP CUG	0000-2400 DUPLEX	304HF1BCN	X 26.0 DBW	ND 025W39 37N45	400 KM	435.50 KHZ	1230
1746 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 34.7 DBW	ND 028W38 38N32	1200 KM	435.50 KHZ	1359
1747 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND 028W38 38N32	750 KM	435.50 KHZ	1364
1748 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 34.7 DBW	ND 028W38 38N32	1200 KM	435.50 KHZ	1365
1749 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND 028W38 38N32	750 KM	435.50 KHZ	1363
1750 MOD	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND 028W38 38N32	750 KM	435.50 KHZ	1362
2542 ADD	AZR POR	LAJES 027W06 38N46	FC CO CTE	0000-2400 SIMPLEX	100HA1A	X 34.8 DBW	ND 027W06 38N46	750 KM	435.50 KHZ	
2578 ADD	AZR POR	LAGES 027W06 38N46	FC CO CTE	0000-2400 SIMPLEX	100HA1A	X 34.8 DBW	ND 027W06 38N46	1500 KM	474.0000 KHZ 435.50 KHZ	1371
2190 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND 004E19 51N16	500 KM	1650.9000 KHZ 1636.40 KHZ	152
2191 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND 004E19 51N16	500 KM	1653.9000 KHZ 1636.40 KHZ	152
2192 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND 004E19 51N16	500 KM	1706.4000 KHZ 1636.40 KHZ	152

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 5
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2193 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND	004E19 51N16	500 KM	1709.4000 KHZ 1636.40 KHZ	152
2196 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND	004E19 51N16	500 KM	1902.4000 KHZ 1636.40 KHZ	152
2197 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND	004E19 51N16	500 KM	1905.4000 KHZ 1636.40 KHZ	152
2206 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND	004E19 51N16	500 KM	2815.4000 KHZ 1636.40 KHZ	152
2207 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND	004E19 51N16	500 KM	2818.4000 KHZ 1636.40 KHZ	152
2210 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND	004E19 51N16	500 KM	3653.4000 KHZ 1636.40 KHZ	152
2211 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K99R3E	X 37.0 DBW	ND	004E19 51N16	500 KM	3656.4000 KHZ 1636.40 KHZ	152
2215 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	004E19 51N16	500 KM	435.50 KHZ	150
2220 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	004E19 51N16	500 KM	1607.00 KHZ	151
2221 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	004E19 51N16	500 KM	1607.00 KHZ	151
2222 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	004E19 51N16	500 KM	1607.00 KHZ	151
2223 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	300HF1B	X 33.0 DBW	ND	004E19 51N16	500 KM	1607.00 KHZ	151
2225 MOD	BEL	ANTWERPEN RADIO 004E19 51N16	FC CP OSA	0000-2400 DUPLEX	2K10A2A	X 33.0 DBW	ND	004E19 51N16	500 KM	489.0000 KHZ 435.50 KHZ	1333
2620 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22	600 KM	435.50 KHZ	1386
2621 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22	600 KM	435.50 KHZ	1387
2622 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW		002E28 06N22	600 KM	444.00 KHZ	1388

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 6
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2623 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1726.00 KHZ	1405
2624 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1786.40 KHZ	1406
2625 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1774.40 KHZ	1407
2626 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1756.40 KHZ	1408
2627 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1741.40 KHZ	1409
2628 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1711.40 KHZ	1410
2629 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1660.40 KHZ	1411
2630 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1654.40 KHZ	1412
2631 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1651.40 KHZ	1413
2632 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1642.40 KHZ	1414
2633 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1639.40 KHZ	1415
2634 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1636.40 KHZ	1416
2635 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	1617.00 KHZ	1417
2636 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	1615.00 KHZ	1418
2637 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	1614.00 KHZ	1419
2638 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	1613.00 KHZ	1420
2639 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	1610.00 KHZ	1421
2640 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	1608.00 KHZ	1422

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 7
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2641 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	517.00 KHZ	1423
2642 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	515.00 KHZ	1424
2643 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	513.00 KHZ	1425
2644 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 KM	511.00 KHZ	1426
2645 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	449.00 KHZ	1427
2646 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM	446.00 KHZ	1428
2647 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	435.50 KHZ	1429
2648 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM	440.00 KHZ	1430
2649 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM	438.00 KHZ	1431
2650 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	2K80J3E	X 33.0 DBW		002E28 06N22 600 KM	1813.0000 KHZ 1798.40 KHZ	1432
2651 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM	436.00 KHZ	1433
2652 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM	442.50 KHZ	1434
2653 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	002E28 06N22 600 KM	435.50 KHZ	1435
2654 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM		1436
2655 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM	435.50 KHZ	1437
2656 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM		1438
2657 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 DUPLEX	100HA1A	X 33.0 DBW		002E28 06N22 600 KM	435.50 KHZ	1439
2658 ADD	BEN	COTONOU 002E28 06N22	FC CP TYA	0000-2400 SIMPLEX	304HF1B	X 33.0 DBW		002E28 06N22 600 KM	435.50 KHZ	1440

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 8
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2776 ADD	BEN	COTONOU	002E28 06N22	FC CP	0800-2200 DUPLEX	100HA1A	X 33.0 DBW	ND	002E28 06N22	500 KM	418.0000 KHZ 435.50 KHZ	
2777 ADD	BEN	COTONOU	002E28 06N22	FC CP	0800-2400 DUPLEX	100HA1A	X 24.8 DBW	ND	002E28 06N22	300 KM	500.0000 KHZ 435.50 KHZ	
2520 ADD	BHR	BAHRAIN	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	100HA1A	X 26.0 DBW	ND	050E28 26N09	800 KM	487.0000 KHZ 435.50 KHZ	
2521 ADD	BHR	HAMALA	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	100HA1A	X 26.0 DBW	ND	050E28 26N09	800 KM	442.0000 KHZ 435.50 KHZ	
2522 ADD	BHR	HAMALA	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	100HA1A	X 26.0 DBW	ND	050E28 26N09	800 KM	516.0000 KHZ 435.50 KHZ	
2659 ADD	CME	CAMPO	009E51 02N22	FC CV	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	009E51 02N22	400 KM	1770.0000 KHZ 1770.00 KHZ	
2660 ADD	CME	CAMPO	009E51 02N22	FC CP	0000-2400 SIMPLEX	2K80J3E	X 30.0 DBW	ND	009E51 02N22	400 KM	1779.0000 KHZ 1636.40 KHZ	
2661 ADD	CME	CAMPO	009E51 02N22	FC CP	0000-2400 SIMPLEX	304HF1B	X 30.0 DBW	ND	009E51 02N22	400 KM	519.0000 KHZ 435.50 KHZ	
2662 ADD	CME	CAMPO	009E51 02N22	FC CP	0700-1900 SIMPLEX	304HF1B	X 30.0 DBW	ND	009E51 02N22	400 KM	521.5000 KHZ 435.50 KHZ	
2663 ADD	CME	CAMPO	009E51 02N22	FC CO	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	009E51 02N22	400 KM	445.0000 KHZ 435.50 KHZ	
2664 ADD	CME	CAMPO	009E51 02N22	FC OT	0700-1900 DUPLEX	100HA1A	X 30.0 DBW	ND	009E51 02N22	400 KM	440.0000 KHZ 435.50 KHZ	
2665 ADD	CME	KRIBI	009E43 02N53	FC CV	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	009E43 02N53	400 KM	2120.0000 KHZ 1636.40 KHZ	
2666 ADD	CME	KRIBI	009E43 02N53	FC CP	0700-1900 SIMPLEX	2K80J3E	X 30.0 DBW	ND	009E43 02N53	400 KM	2060.0000 KHZ 1636.40 KHZ	
2667 ADD	CME	KRIBI	009E43 02N53	FC CP	0600-1900 SIMPLEX	304HF1B	X 30.0 DBW	ND	009E43 02N53	400 KM	523.0000 KHZ 435.50 KHZ	
2668 ADD	CME	KRIBI	009E43 02N53	FC CP	0000-2400 SIMPLEX	304HF1B	X 30.0 DBW	ND	009E43 02N53	400 KM	525.0000 KHZ 435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2669	CME	KRIBI	FC CO	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 02N53 400 KM	442.5000 KHZ	
ADD		009E43 02N53		DUPLEX					435.50 KHZ	
2670	CME	KRIBI	FC OT	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 02N53 400 KM	436.0000 KHZ	
ADD		009E43 02N53		DUPLEX					435.50 KHZ	
2671	CME	GRAND BATANGA	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	009E52 02N43 400 KM	1782.0000 KHZ	
ADD		009E52 02N43		DUPLEX					1636.40 KHZ	
2672	CME	GRAND BATANGA	FC CP	0700-2400	304HF1B	X 30.0 DBW	ND	009E52 02N43 400 KM	520.0000 KHZ	
ADD		009E52 02N43		SIMPLEX					435.50 KHZ	
2673	CME	GRAND BATANGA	FC CR	0000-2400	100HA1A	X 30.0 DBW	ND	009E52 02N43 400 KM	444.0000 KHZ	
ADD		009E52 02N43		DUPLEX					435.50 KHZ	
2674	CME	DOUALA	FC CO	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 04N01 400 KM	442.0000 KHZ	
ADD		009E43 04N01		DUPLEX					435.50 KHZ	
2675	CME	DOUALA	FC OT	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 04N01 400 KM	438.0000 KHZ	
ADD		009E43 04N01		DUPLEX					435.50 KHZ	
2676	CME	DOUALA	FC CP	0000-2400	304HF1B	X 30.0 DBW	ND	009E43 04N01 400 KM	524.0000 KHZ	
ADD		009E43 04N01		SIMPLEX					435.50 KHZ	
2677	CME	DOUALA	FC CP	0000-2400	304HF1B	X 30.0 DBW	ND	009E43 04N01 400 KM	522.0000 KHZ	
ADD		009E43 04N01		SIMPLEX					435.50 KHZ	
2678	CME	DOUALA	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	009E43 04N01 400 KM	2126.0000 KHZ	
ADD		009E43 04N01		SIMPLEX					1636.40 KHZ	
2679	CME	DOUALA	FC CV	0000-2400	2K80J3E	X 30.0 DBW	ND	009E43 04N01 400 KM	2054.0000 KHZ	
ADD		009E43 04N01		DUPLEX					1636.40 KHZ	
2680	CME	LIMBE	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	009E22 04N02 400 KM	1788.0000 KHZ	
ADD		009E22 04N02		SIMPLEX					1636.40 KHZ	
2681	CME	LIMBE	FC CP	0700-1900	2K80J3E	X 30.0 DBW	ND	009E22 04N02 400 KM	1638.0000 KHZ	
ADD		009E22 04N02		SIMPLEX					1636.40 KHZ	
2682	CME	LIMBE	FC CP	0000-2400	304HF1B	X 30.0 DBW	ND	009E22 04N02 400 KM	516.0000 KHZ	
ADD		009E22 04N02		SIMPLEX					435.50 KHZ	
2683	CME	LIMBE	FC CO	0000-2400	100HA1A	X 30.0 DBW	ND	009E22 04N02 400 KM	439.0000 KHZ	
ADD		009E22 04N02		DUPLEX					435.50 KHZ	
2684	CME	LIMBE	FC CP	0700-1900	100HA1A	X 30.0 DBW	ND	009E22 04N02 400 KM	448.0000 KHZ	
ADD		009E22 04N02		DUPLEX					435.50 KHZ	
2772	CME	LIMBE	FC OT	0000-2400	304HF1B	X 30.0 DBW	ND	009E22 04N02 400 KM	511.0000 KHZ	
ADD		009E22 04N02		DUPLEX					435.50 KHZ	
2778	CME	DOUALA	FC CP	0000-2400	300HA1B	X 30.0 DBW	ND	009E42 04N02 400 KM	438.0000 KHZ	
ADD		009E42 04N02		DUPLEX					435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2779 ADD	CME	DOUALA 009E42 04N02	FC CP	0000-2400 DUPLEX	300HA1B	X 30.0 DBW	ND	009E42 04N02 400 KM	519.0000 KHZ 435.50 KHZ	
2483 ADD	CNR E	ARRECIFE 013W31 29N08	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 DBW	ND	013W31 29N08 370 KM	1636.40 KHZ	
2484 ADD	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 DBW	ND	015W36 27N45 370 KM	1636.40 KHZ	
2840 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	011E51 04S44 1000 KM	436.00 KHZ	
2841 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	011E51 04S44 1000 KM	438.00 KHZ	
2842 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	011E51 04S44 1000 KM	440.00 KHZ	
2843 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	011E51 04S44 1000 KM	443.00 KHZ	
2845 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	011E51 04S44 1000 KM	445.50 KHZ	
2847 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1A	X 37.0 DBW	ND	011E51 04S44 1000 KM	449.00 KHZ	
2849 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1B	X 37.0 DBW	ND	011E51 04S44 1000 KM	510.50 KHZ	
2854 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1B	X 37.0 DBW	ND	011E51 04S44 1000 KM	515.00 KHZ	
2855 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1B	X 37.0 DBW	ND	011E51 04S44 1000 KM	519.00 KHZ	
2856 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1B	X 37.0 DBW	ND	011E51 04S44 1000 KM	524.00 KHZ	
2857 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	100HA1B	X 37.0 DBW	ND	011E51 04S44 1000 KM	526.00 KHZ	
2858 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	304HF1B	X 37.0 DBW	ND	011E51 04S44 1000 KM	1607.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2859 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	304HF1B	X 37.0 DBW	ND	011E51 04S44	1000 KM	1609.00 KHZ	
2860 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	304HF1B	X 37.0 DBW	ND	011E51 04S44	1000 KM	1624.50 KHZ	
2861 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	304HF1B	X 37.0 DBW	ND	011E51 04S44	1000 KM	1620.00 KHZ	
2863 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400 DUPLEX	2K80J3E	X 37.0 DBW	ND	011E51 04S44	1000 KM	1670.00 KHZ	
2865 ADD	COG	POINTE NOIRE RADIO 011E51 04S44	FC CP TNA	0000-2400	2K80J3E	X 37.0 DBW	ND	011E51 04S44	1000 KM	1794.00 KHZ	
2773 ADD	COM	DZAOUDZI RADIO 045E18 12S47	FC CP	0400-1700 DUPLEX	100HA1A	X 28.5 DBW	ND	045E18 12S47	500 KM	500.0000 KHZ 435.50 KHZ	
2780 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53	1000 KM	435.0000 KHZ 435.50 KHZ	
2781 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53	1000 KM	434.0000 KHZ 435.50 KHZ	
2782 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53	1000 KM	436.0000 KHZ 435.50 KHZ	
2783 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 30.0 DBW	ND	024W59 16N53	1000 KM	449.0000 KHZ 435.50 KHZ	
2784 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 30.0 DBW	ND	024W59 16N53	1000 KM	450.0000 KHZ 435.50 KHZ	
2785 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 30.0 DBW	ND	024W59 16N53	1000 KM	451.0000 KHZ 435.50 KHZ	
2786 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53	500 KM	500.0000 KHZ 435.50 KHZ	
2787 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53	500 KM	500.0000 KHZ 435.50 KHZ	
2788 ADD	CPV	MINDELO 024W59 16N53	FC CP	0000-2400 DUPLEX	500HA1B	X 27.0 DBW	ND	024W59 16N53	500 KM	500.0000 KHZ 435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2789	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 27.0 DBW	ND	023W30 14N55	1000 KM	434.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2790	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 27.0 DBW	ND	023W30 14N55	1000 KM	435.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2791	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 27.0 DBW	ND	023W30 14N55	1000 KM	436.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2792	CPV	PRAIA		FC CP	0000-2400	100HA1A	X 24.8 DBW	ND	023W30 14N55	300 KM	447.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2793	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 30.0 DBW	ND	023W30 14N55	1000 KM	449.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2794	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 30.0 DBW	ND	023W30 14N55	1000 KM	450.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2795	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 30.0 DBW	ND	023W30 14N55	1000 KM	451.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2796	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 27.0 DBW	ND	023W30 14N55	500 KM	500.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2797	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 27.0 DBW	ND	023W30 14N55	500 KM	500.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2798	CPV	PRAIA		FC CP	1000-2000	500HA1B	X 27.0 DBW	ND	023W30 14N55	500 KM	500.0000 KHZ	
ADD			023W30 14N55		DUPLEX						435.50 KHZ	
2799	CPV	S VICENTE		FC CO	0000-2400	100HA1A	X 30.0 DBW	ND	025W00 16N51	800 KM	447.0000 KHZ	
ADD			025W00 16N51								435.50 KHZ	
2461	CTI	ABIDJAN RADIO		FC CP	0000-2400	100HA1A	X 30.0 DBW	ND	003W58 05N21	300 KM	487.0000 KHZ	
ADD			003W58 05N21	TUA	DUPLEX						435.50 KHZ	
2462	CTI	ABIDJAN RADIO		FC CP	0000-2400	100HA1A	X 30.0 DBW	ND	003W58 05N21	300 KM	516.0000 KHZ	
ADD			003W58 05N21	TUA	DUPLEX						435.50 KHZ	
2463	CTI	ABIDJAN RADIO		FC CP	0000-2400	100HA1A	X 30.0 DBW	ND	003W58 05N21	300 KM		
ADD			003W58 05N21	TUA	DUPLEX						435.50 KHZ	
2464	CTI	ABIDJAN RADIO		FC CP	0000-2400	304HF1B	X 36.0 DBW	ND	003W58 05N21	300 KM		
ADD			003W58 05N21	TUA	DUPLEX						435.50 KHZ	
2465	CTI	ABIDJAN RADIO		FC CP	0000-2400	304HF1B	X 36.0 DBW	ND	003W58 05N21	300 KM		
ADD			003W58 05N21	TUA	DUPLEX						435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2466	CTI	ABIDJAN RADIO	FC CP	0000-2400	2K80J3E	X 36.0 DBW	ND	003W58 05N21 300 KM	1813.0000 KHZ	
ADD		003W58 05N21	TUA	DUPLEX					1607.00 KHZ	
2467	CTI	ABIDJAN RADIO	FC CP	0000-2400	2K80J3E	X 36.0 DBW	ND	003W58 05N21 300 KM	1876.0000 KHZ	
ADD		003W58 05N21	TUA	DUPLEX					1636.40 KHZ	
2468	CTI	ABIDJAN	FC CP	0000-2400	2K80J3E	X 36.0 DBW	ND	003W58 05N21 300 KM	2416.0000 KHZ	
ADD		003W58 05N21	TUA	DUPLEX					1636.40 KHZ	
2469	CTI	ABIDJAN RADIO	FC CP	0000-2400	2K80J3E	X 36.0 DBW	ND	003W58 05N21 300 KM	2586.0000 KHZ	
ADD		003W58 05N21	TUA	DUPLEX					1636.40 KHZ	
2470	CTI	ABIDJAN RADIO	FC CP	0000-2400	2K80J3E	X 36.0 DBW	ND	003W58 05N21 300 KM	2650.0000 KHZ	
ADD		003W58 05N21	TUA	DUPLEX					1636.40 KHZ	
2471	CTI	ABIDJAN SANTE MARINE	FC CR	0000-2400	100HA1A	X 36.0 DBW	ND	004W01 05N18 200 KM		
ADD		004W01 05N18	TUX	DUPLEX					435.50 KHZ	
2472	CTI	ABIDJAN SANTE MARINE	FC CR	0000-2400	100HA1A	X 36.0 DBW	ND	004W01 05N18 200 KM		
ADD		004W01 05N18	TUX	DUPLEX					435.50 KHZ	
2473	CTI	ABIDJAN SANTE MARINE	FC CR	0000-2400	304HF1B	X 36.0 DBW	ND	004W01 05N18 200 KM		
ADD		004W01 05N18	TUX	DUPLEX					435.50 KHZ	
2474	CTI	ABIDJAN SANTE MARINE	FC CR	0000-2400	304HF1B	X 36.0 DBW	ND	004W01 05N18 200 KM		
ADD		004W01 05N18	TUX	DUPLEX					435.50 KHZ	
2475	CTI	ABIDJAN SANTE MARINE	FC CR	0000-2400	2K80J3E	X 30.0 DBW	ND	004W01 05N18 200 KM		
ADD		004W01 05N18	TUX	DUPLEX					1636.40 KHZ	
2476	CTI	ABIDJAN SANTE MARINE	FC CR	0000-2400	2K80J3E	X 30.0 DBW	ND	004W01 05N18 200 KM		
ADD		004W01 05N18	TUX	DUPLEX					1636.40 KHZ	
2477	CTI	S. PEDRO PORT	FC CR	0000-2400	100HA1A	X 30.0 DBW	ND	006W37 04N44 200 KM		
ADD		006W37 04N44	TUA 200	DUPLEX					435.50 KHZ	
2478	CTI	S. PEDRO PORT	FC CR	0000-2400	100HA1A	X 30.0 DBW	ND	006W37 04N44 200 KM		
ADD		006W37 04N44	TUA 200	DUPLEX					435.50 KHZ	
2479	CTI	S. PEDRO PORT	FC CR	0000-2400	2K80J3E	X 30.0 DBW	ND	006W37 04N44 200 KM		
ADD		006W37 04N44	TUA 200	DUPLEX					1636.40 KHZ	
2480	CTI	S. PEDRO PORT	FC CR	0000-2400	2K80J3E	X 30.0 DBW	ND	006W37 04N44 200 KM		
ADD		006W37 04N44	TUA 200	DUPLEX					1636.40 KHZ	
2481	CTI	S. PEDRO PORT	FC CR	0000-2400	304HF1B	X 30.0 DBW	ND	006W37 04N44 200 KM		
ADD		006W37 04N44	TUA 200	DUPLEX					435.50 KHZ	
2482	CTI	S. PEDRO PORT	FC CR	0000-2400	304HF1B	X 30.0 DBW	ND	006W37 04N44 200 KM		
ADD		006W37 04N44	TUA 200	DUPLEX					415.00 KHZ	
1777	D	FLENSBURG	FC CO	0000-2400	304HF1B	X 30.0 DBW	ND	005E00 58N00 018E00 58N00	1671.0000 KHZ	
MOD		009E41 54N48	DHJ58	DUPLEX				018E00 55N00 015E00 54N00	1607.00 KHZ	
								005E00 51N00		

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
1778 MOD	D	WILHELMSHAVEN 007E37 53N41	FC CO DHJ59	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	005E00 58N00 010E00 58N00 015E00 54N00 002E00 51N00	1691.0000 KHZ 1607.00 KHZ	
1791 MOD	D	BUESUM 008E50 54N10	FC CO DHQ61	0000-2400 SIMPLEX	2K80J3E	X 30.0 DBW	ND	008E00 53N50 008E00 54N50 009E10 54N50 009E10 53N50	1650.0000 KHZ 1636.40 KHZ	1232
2800 ADD	DJI	DJIBOUTI 043E08 11N36	FC CO	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	043E08 11N36 1500 KM	438.0000 KHZ 435.50 KHZ	
2801 ADD	DJI	DJIBOUTI 043E08 11N36	FC CP	0000-2400 DUPLEX	300HA1B	X 34.0 DBW	ND	043E08 11N36 1000 KM	500.0000 KHZ 435.50 KHZ	
2686 ADD	E	VIGO 008W49 42N10	FC CP	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	008W49 42N10 500 KM	484.0000 KHZ 435.50 KHZ	
2687 ADD	E	VIGO 008W49 42N10	FC CP	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	008W49 42N10 500 KM	447.0000 KHZ 435.50 KHZ	
2688 ADD	E	VIGO 008W44 42N14	FC CP	0000-2400 DUPLEX	2K70J3E	X 33.0 DBW	ND	008W44 42N14 370 KM	1699.4000 KHZ 1636.40 KHZ	
2689 ADD	E	CABO PALOS 000W42 37N38	FC CP	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	000W42 37N38 500 KM	476.0000 KHZ 435.50 KHZ	
2690 ADD	E	LAREDO 003W21 43N25	FC CV	0000-2400 DUPLEX	2K70J3E	X 33.0 DBW	ND	003W21 43N25 370 KM	1798.0000 KHZ 1636.40 KHZ	
2691 ADD	E	LAS PALMAS RN 015W26 28N09	FC CP	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	015W26 28N09 600 KM	429.0000 KHZ 435.50 KHZ	
2692 ADD	E	LAS PALMAS 015W36 27N45	FC CP	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	015W36 27N45 600 KM	418.0000 KHZ 435.50 KHZ	
2693 ADD	E	CEUTA 005W16 35N53	FC CP	0000-2400 DUPLEX	2K70J3E	X 33.0 DBW	ND	005W16 35N53 370 KM	1790.0000 KHZ 1636.40 KHZ	
2694 ADD	E	BARBATE 005W55 36N11	FC CV	0000-2400 DUPLEX	2K70J3E	X 33.0 DBW	ND	005W55 36N11 370 KM	1770.0000 KHZ 1636.40 KHZ	
2695 ADD	E	ALBORAN 003W02 35N56	FC CP	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	003W02 35N56 500 KM	470.0000 KHZ 435.50 KHZ	
2696 ADD	E	PALMA DE MALLORCA 002W43 39N32	FC CP	0000-2400 DUPLEX	2K70J3E	X 33.0 DBW	ND	002W43 39N32 370 KM	1741.4000 KHZ 1636.40 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 15
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2697	E	MELILLA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	005W21 35N54	500 KM	429.0000 KHZ	
ADD		002W56 35N18		DUPLEX						435.50 KHZ	
2698	E	SANCTI PETRI	FC CV	0000-2400	2K70J3E	X 33.0 DBW	ND	006W13 36N23	370 KM	1770.0000 KHZ	
ADD		006W13 36N23		DUPLEX						1636.40 KHZ	
2699	E	CABO PENAS	FC CP	0000-2400	2K70J3E	X 33.0 DBW	ND	005W50 43N39	500 KM	1758.9000 KHZ	
ADD		005W50 43N39		DUPLEX						1636.40 KHZ	
2700	E	SADA	FC CP	0000-2400	2K70J3E	X 33.0 DBW	ND	008W15 43N21	500 KM	1707.0000 KHZ	
ADD		008W15 43N21		DUPLEX						1636.40 KHZ	
2701	E	CDEPENAS	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	005W51 43N39	500 KM	441.0000 KHZ	
ADD		005W51 43N39		DUPLEX						435.50 KHZ	
2702	E	PALMA MALLORCA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	002E35 39N35	500 KM	429.0000 KHZ	
ADD		002E35 39N35		DUPLEX						435.50 KHZ	
2703	E	CEUTA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	005W21 35N54	500 KM	429.0000 KHZ	
ADD		005W21 35N54		DUPLEX						435.50 KHZ	
2704	E	VALENCIA	FC CP	0000-2400	2K70J3E	X 33.0 DBW	ND	000W18 39N27	370 KM	1681.4000 KHZ	
ADD		000W18 39N27		DUPLEX						1636.40 KHZ	
2706	E	ALICANTE	FC CP	0000-2400	2K70J3E	X 33.0 DBW	ND	000W29 38N21	370 KM	1691.4000 KHZ	
ADD		000W29 38N21		DUPLEX						1636.40 KHZ	
2707	E	CADIZ	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	006W16 36N30	500 KM	484.0000 KHZ	
ADD		006W16 36N30		DUPLEX						435.50 KHZ	
2708	E	LACORUNA	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	008W24 43N20	500 KM	472.0000 KHZ	
ADD		008W24 43N20		DUPLEX						435.50 KHZ	
2709	E	AYAMONTE	FC CV	0000-2400	2K70J3E	X 33.0 DBW	ND	007W24 37N13	370 KM	1800.0000 KHZ	
ADD		007W24 37N13		DUPLEX						1636.40 KHZ	
2549	EGY	TOR RADIO	FC CP	0400-2200	340HF1B	X 30.0 DBW	ND	033E35 28N15	300 KM		1366
ADD		033E35 28N15	SUT	DUPLEX						435.50 KHZ	
2550	EGY	ALEXANDRIA RADIO	FC CP	0000-2400	340HF1B	X 37.0 DBW	ND	029E52 31N12	500 KM		1366
ADD		029E52 31N12	SUH							435.50 KHZ	
2551	EGY	KOSSEIR RADIO	FC CP	-	340HF1B	X 35.0 DBW	ND	034E17 26N06	500 KM		1366
ADD		034E17 26N06	SUK	DUPLEX						435.50 KHZ	
2552	EGY	PORT SAID RADIO	FC CP	-	340HF1B	X	ND	032E18 31N19	KM		1366
ADD		032E18 31N19	SUP	DUPLEX						435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2553 ADD	EGY	PORT SAID RADIO 032E18 31N19	FC CP SUP	0400-2200 DUPLEX	340HF1B	X 37.0 DBW	ND	032E18 31N19 500 KM	435.50 KHZ	1367
2554 ADD	EGY	TOR RADIO 033E35 28N15	FC CP SUT	0400-2200 DUPLEX	340HF1B	X 30.0 DBW	ND	033E35 28N15 300 KM	435.50 KHZ	1367
2555 ADD	EGY	ALEXANDRIA RADIO 00 00	FC CP SUH	0000-2400 DUPLEX	340HF1B	X 37.0 DBW	ND	00 00 600 KM	435.50 KHZ	1367
2556 ADD	EGY	KOSSEIR RADIO 00 00	FC CP SUK	0400-2200 DUPLEX	340HF1B	X 35.0 DBW	ND	00 00 500 KM	435.50 KHZ	1367
2557 ADD	EGY	ALEXANDRIA RADIO 029E52 31N12	FC CP SUH	0000-2400 DUPLEX	500HA1AA	X 37.0 DBW	ND	029E52 31N12 500 KM	444.0000 KHZ 435.50 KHZ	
2558 ADD	EGY	KOSSEIR RADIO 034E17 26N06	FC CP SUK	0400-2200 DUPLEX	500HA1AA	X 35.0 DBW	ND	034E17 26N06 500 KM	459.0000 KHZ 435.50 KHZ	1368
2559 ADD	EGY	ALEXANDRIA RADIO 029E52 31N12	FC CP SUH	0000-2400 SIMPLEX	500HA1AA	X	ND	029E52 31N12 500 KM	459.0000 KHZ 435.50 KHZ	1368
2560 ADD	EGY	KOSSEIR RADIO 034E17 26N06	FC CP SUK	0400-2200	2K80J3E	X 30.0 DBW	ND	034E17 26N06 300 KM	1851.0000 KHZ 1636.40 KHZ	1369
2561 ADD	EGY	KOSSEIR RADIO 034E17 26N06	FC CP SUK	0400-2200 SIMPLEX	500HA1AA	X 35.0 DBW	ND	034E17 26N06 500 KM	500.0000 KHZ 435.50 KHZ	
2562 ADD	EGY	PORT SAID RADIO 032E18 31N19	FC CP SUP	0400-2200 SIMPLEX	500HA1AA	X	ND	032E18 31N19 500 KM	500.0000 KHZ 435.50 KHZ	
2563 ADD	EGY	PORT SAID RADIO 032E18 31N19	FC CP SUP	0400-2200	500HA1A	X 37.0 DBW	ND	032E18 31N19 500 KM	450.0000 KHZ 435.50 KHZ	1370
2564 ADD	EGY	ALEXANDRIA RADIO 029E52 31N12	FC CP SUH	0000-2400 SIMPLEX	500HA1AA	X 37.0 DBW	ND	029E52 31N12 500 KM	500.0000 KHZ 435.50 KHZ	
2802 ADD	EGY	ALEXANDRIA 029E51 31N11	FC CP	0000-2400 DUPLEX	2K00A1B	X 34.0 DBW	ND	029E51 31N11 1000 KM	429.0000 KHZ 435.50 KHZ	
2803 ADD	EGY	ALEXANDRIA 029E51 31N11	FC CP	0000-2400 DUPLEX	2K00A1B	X 34.0 DBW	ND	029E51 31N11 1000 KM	444.0000 KHZ 435.50 KHZ	
2804 ADD	EGY	ALEXANDRIA 029E51 31N11	FC CP	0000-2400 DUPLEX	2K80J3E	X 20.0 DBW	ND	029E51 31N11 600 KM	1680.0000 KHZ 1636.40 KHZ	
2805 ADD	EGY	ALEXANDRIA 029E51 31N11	FC CP	0000-2400 DUPLEX	2K80J3E	X 31.8 DBW	ND	029E51 31N11 800 KM	1680.0000 KHZ 1636.40 KHZ	
2806 ADD	EGY	ISMAILIA 032E16 30N35	FC CV	0000-2400 DUPLEX	2K00A2B	27.0 DBW	ND	032E16 30N35 1000 KM	421.0000 KHZ 435.50 KHZ	
2807 ADD	EGY	KOSSEIR 034E17 26N06	FC CP	0400-2200 DUPLEX	2K00A1B	X 34.0 DBW	ND	034E17 27N06 1000 KM	429.0000 KHZ 435.50 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 17
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2808 ADD	EGY	KOSSEIR 034E17 27N06	FC CP	0400-2200 DUPLEX	2K80J3E	X 20.0 DBW	ND	034E17 27N06	800 KM	1680.0000 KHZ 1636.40 KHZ	
2809 ADD	EGY	GIZA 031E22 30N16	FC CP	0000-2400 DUPLEX	2K00A1B	X 34.0 DBW	ND	031E22 30N16	800 KM	438.0000 KHZ 435.50 KHZ	
2810 ADD	EGY	TOR 033E35 28N15	FC CP	0000-2400 DUPLEX	2K00A1B	X 31.8 DBW	ND	033E35 28N15	800 KM	500.0000 KHZ 435.50 KHZ	
1866 MOD	F	MARSEILLE BALISAGE 005E21 43N17	FC OT FRN2	0700-1630 SIMPLEX	2K70J3EJN	X 21.7 DBW	ND	005E21 43N17	183 KM	1637.5000 KHZ 1637.50 KHZ	1275
412 MOD	FNL	HELSINKI RV 024E50 60N13	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	024E50 60N13	300 KM	1636.40 KHZ	
415 MOD	FNL	MARIEHAUN RV 019E56 60N05	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	019E56 60N05	300 KM	1636.40 KHZ	
418 MOD	FNL	VAASA RV 021E43 63N05	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	021E43 63N05	300 KM	1636.40 KHZ	
420 MOD	FNL	HAILUOTO RV 024E39 64N58	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	024E39 64N58	300 KM	1636.40 KHZ	
422 MOD	FNL	PORI RV 021E31 61N34	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	021E31 61N34	300 KM	1636.40 KHZ	
423 MOD	FNL	HANKO RV 023E01 59N49	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	023E01 59N49	300 KM	1636.40 KHZ	
425 MOD	FNL	KOTKA RV 026E46 60N28	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 DBW	ND	026E46 60N28	300 KM	1636.40 KHZ	
2705 ADD	FNL	MARIEHAUN RV 019E56 60N05	FC CO	0000-2400 DUPLEX	2K70J3EJN	X 37.0 DBW	ND	019E56 60N05	300 KM		
68 SUP	G	ANGLESEY RADIO 004W18 53N24	FC CP GLV	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	004W18 53N24	160 KM	435.00 KHZ	397
69 SUP	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	304HF1BCN	X 27.0 DBW	ND	001W28 55N04	320 KM	435.00 KHZ	397

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 18
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
70	G	HUMBER RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	000E17 53N20	160 KM		397
SUP		000E17 53N20	GKZ	DUPLEX						435.00 KHZ	
71	G	ILFRACOMBE RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	004W07 51N11	160 KM		397
SUP		004W07 51N11	GIL	DUPLEX						435.00 KHZ	
72	G	LANDS END RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	005W40 50N07	320 KM		397
SUP		005W40 50N07	GLD	DUPLEX						435.00 KHZ	
73	G	NITON RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	001W18 50N35	160 KM		397
SUP		001W18 50N35	GNI	DUPLEX						435.00 KHZ	
74	G	NORTH FORELAND RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	001E25 51N22	240 KM		397
SUP		001E25 51N22	GNF	DUPLEX						435.00 KHZ	
75	G	PORTPATRICK RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	005W07 54N51	240 KM		397
SUP		005W07 54N51	GPK	DUPLEX						435.00 KHZ	
76	G	STONEHAVEN RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	002W13 56N57	240 KM		397
SUP		002W13 56N57	GND	DUPLEX						435.00 KHZ	
77	G	WICK RADIO	FC CP	0000-2400	304HF1BCN	X 27.0 DBW	ND	003W06 58N26	320 KM		397
SUP		003W06 58N26	GKR	DUPLEX						435.00 KHZ	
108	G	ANGLESEY RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	004W18 53N24	160 KM		398
SUP		004W18 53N24	GLV	DUPLEX						1606.50 KHZ	
109	G	CULLERCOATS RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	001W28 55N04	320 KM		398
SUP		001W28 55N04	GCC	DUPLEX						1606.50 KHZ	
110	G	HEBRIDES RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	007W02 58N14	320 KM		398
SUP		007W02 58N14		DUPLEX						1606.50 KHZ	
111	G	HUMBER RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	000E17 53N20	160 KM		398
SUP		000E17 53N20	GKZ	DUPLEX						1606.50 KHZ	
112	G	ILFRACOMBE RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	004W07 51N11	160 KM		398
SUP		004W07 51N11	GIL	DUPLEX						1606.50 KHZ	
113	G	LANDS END RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	005W40 50N07	320 KM		398
SUP		005W40 50N07	GLD	DUPLEX						1606.50 KHZ	
114	G	NITON RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	001W18 50N35	160 KM		398
SUP		001W18 50N35	GNI	DUPLEX						1606.50 KHZ	
115	G	NORTH FORELAND RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	001E25 51N22	90 KM		398
SUP		001E25 51N22	GNF	DUPLEX						1606.50 KHZ	
116	G	NORWICK RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	000W45 60N29	320 KM		398
SUP		000W45 60N29		DUPLEX						1606.50 KHZ	
117	G	PORTPATRICK RADIO	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	005W07 54N51	240 KM		398
SUP		005W07 54N51	GPK	DUPLEX						1606.50 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 19
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
118 SUP	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	002W13 56N57	240 KM	1606.50 KHZ	398
119 SUP	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	003W06 58N26	320 KM	1606.50 KHZ	398
175 SUP	G	ABERDEEN COASTGUARD 002W03 57N08	FC OT ABERDEEN	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	002W03 57N08	360 KM	1636.40 KHZ	410
176 SUP	G	BRIXHAM COASTGUARD 004W13 50N19	FC OT BRIXHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W13 50N19	180 KM	1636.40 KHZ	410
177 SUP	G	CLYDE COASTGUARD 004W48 55N49	FC OT CLYDE	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W48 55N49	180 KM	1636.40 KHZ	410
178 SUP	G	DOVER COASTGUARD 001E22 51N10	FC OT DOVER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001E22 51N10	180 KM	1636.40 KHZ	410
179 SUP	G	FALMOUTH COASTGUARD 005W03 50N09	FC OT FALMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	005W03 50N09	180 KM	1636.40 KHZ	410
180 SUP	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W28 50N59	180 KM	1627.5000 KHZ 1636.40 KHZ	410
181 SUP	G	HOLYHEAD COASTGUARD 004W38 53N19	FC OT HOLYHEAD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W38 53N19	180 KM	1636.40 KHZ	410
182 SUP	G	HUMBER COASTGUARD 000W06 54N07	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	000W06 54N07	180 KM	1636.40 KHZ	410
183 SUP	G	LANDS END COASTGUARD 005W41 50N02	FC OT LANDSEND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	005W41 50N02	360 KM	1636.40 KHZ	410
184 SUP	G	LIVERPOOL COASTGUARD 003W03 53N30	FC OT LIVERPOO	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	003W03 53N30	180 KM	1637.5000 KHZ 1636.40 KHZ	410
185 SUP	G	MILFORD HAVEN CGUARD 005W16 51N41	FC OT MILFORD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	005W16 51N41	180 KM	1636.40 KHZ	410
186 SUP	G	MORAY COASTGUARD 001W46 57N30	FC OT MORAY	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001W46 57N30	180 KM	1636.40 KHZ	410
187 SUP	G	PENTLAND COASTGUARD 002W57 58N59	FC OT PENTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	002W57 58N59	180 KM	1636.40 KHZ	410
188 SUP	G	PORTLAND COASTGUARD 002W25 50N33	FC OT PORTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	002W25 50N33	180 KM	1636.40 KHZ	410
189 SUP	G	SHETLAND COASTGUARD 001W08 60N09	FC OT SHETLAND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	001W08 60N09	360 KM	1636.40 KHZ	410
190 SUP	G	SHOREHAM COASTGUARD 000W15 50N49	FC OT SHOREHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	000W15 50N49	180 KM	1636.40 KHZ	410

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
191 SUP	G	STORNOWAY COASTGUARD 006W21 58N13	FC OT STORNOWA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	006W21 58N13 180 KM	1636.40 KHZ	410
192 SUP	G	SWANSEA COASTGUARD 003W58 51N34	FC OT SWANSEA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	003W58 51N34 180 KM	1636.40 KHZ	410
193 SUP	G	THAMES COASTGUARD 001E17 51N51	FC OT THAMES	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001E17 51N51 180 KM	1636.40 KHZ	410
194 SUP	G	TYNE TEES COASTGUARD 001W33 55N19	FC OT TYNETEES	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	001W33 55N19 360 KM	1636.40 KHZ	410
195 SUP	G	YARMOUTH COASTGUARD 001E19 52N56	FC OT YARMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001E19 52N56 180 KM	1636.40 KHZ	410
196 SUP	G	ABERDEEN COASTGUARD 002W03 57N08	FC OT ABERDEEN	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	002W03 57N08 360 KM	1636.40 KHZ	411
197 SUP	G	BRIXHAM COASTGUARD 004W13 50N19	FC OT BRIXHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W13 50N19 180 KM	1636.40 KHZ	411
198 SUP	G	CLYDE COASTGUARD 004W48 55N49	FC OT CLYDE	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W48 55N49 180 KM	1636.40 KHZ	411
199 SUP	G	COQUET LSTN 001W32 55N20	FC OT COQUET	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 DBW	ND	001W32 55N20 150 KM	1632.5000 KHZ 1636.40 KHZ	411
200 SUP	G	DOVER COASTGUARD 001E22 51N10	FC OT DOVER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001E22 51N10 180 KM	1636.40 KHZ	411
201 SUP	G	FALMOUTH COASTGUARD 005W03 50N09	FC OT FALMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	005W03 50N09 180 KM	1636.40 KHZ	411
202 SUP	G	FLATHOLM LSTN 003W07 51N22	FC OT FLATHOLM	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 DBW	ND	003W07 51N22 150 KM	1632.5000 KHZ 1636.40 KHZ	411
203 SUP	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W28 50N59 180 KM	1636.40 KHZ	411
204 SUP	G	HELWICK LSTN 004W25 51N30	FC OT HELWICK	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 DBW	ND	004W25 51N30 150 KM	1632.5000 KHZ 1636.40 KHZ	411
205 SUP	G	HOLYHEAD COASTGUARD 004W38 53N19	FC OT HOLYHEAD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W38 53N19 180 KM	1636.40 KHZ	411
206 SUP	G	HUMBER COASTGUARD 000W06 54N07	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	000W06 54N07 180 KM	1636.40 KHZ	411
207 SUP	G	LANDS END COASTGUARD 005W41 50N02	FC OT LANDSEND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	005W41 50N02 360 KM	1636.40 KHZ	411
208 SUP	G	LIVERPOOL COASTGUARD 003W03 53N30	FC OT LIVERPOO	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	003W03 53N30 180 KM	1637.5000 KHZ 1636.40 KHZ	411

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 21
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
209	G	LONGSTONE LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	001W36 55N38	150 KM	1632.5000 KHZ	411
SUP		001W36 55N38	LONGSTON	SIMPLEX						1636.40 KHZ	
210	G	LUNDY SOUTH LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	004W39 51N09	150 KM	1627.5000 KHZ	411
SUP		004W39 51N09	LUNDYSOU	SIMPLEX						1636.40 KHZ	
211	G	MILFORD HAVEN CGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	005W16 51N41	180 KM		411
SUP		005W16 51N41	MILFORD	SIMPLEX						1636.40 KHZ	
212	G	MORAY COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	001W46 57N30	180 KM		411
SUP		001W46 57N30	MORAY	SIMPLEX						1636.40 KHZ	
213	G	OUTER GABBARD LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	002E04 51N59	150 KM	1632.5000 KHZ	411
SUP		002E04 51N59	OUTERGAB	SIMPLEX						1636.40 KHZ	
214	G	PENTLAND COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	002W57 58N59	180 KM		411
SUP		002W57 58N59	PENTLAND	SIMPLEX						1636.40 KHZ	
215	G	PORTLAND COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	002W25 50N33	180 KM		411
SUP		002W25 50N33	PORTLAND	SIMPLEX						1636.40 KHZ	
216	G	SCARWEATHER LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	003W56 51N26	150 KM	1632.5000 KHZ	411
SUP		003W56 51N26	SCAREWEA	SIMPLEX						1636.40 KHZ	
217	G	SHETLAND COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 30.0 DBW	ND	001W08 60N09	360 KM		411
SUP		001W08 60N09	SHETLAND	SIMPLEX						1636.40 KHZ	
218	G	SHOREHAM COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	000W15 50N49	180 KM		411
SUP		000W15 50N49	SHOREHAM	SIMPLEX						1636.40 KHZ	
219	G	ST GOWAN LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	004W59 51N30	150 KM		411
SUP		004W59 51N30	ST GOWAN	SIMPLEX						1636.40 KHZ	
220	G	STORNOWAY COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	006W21 58N13	180 KM		411
SUP		006W21 58N13	STORNOWA	SIMPLEX						1636.40 KHZ	
221	G	SWANSEA COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	003W58 51N34	180 KM	1632.5000 KHZ	411
SUP		003W58 51N34	SWANSEA	SIMPLEX						1636.40 KHZ	
222	G	THAMES COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	001E17 51N51	180 KM	1632.5000 KHZ	411
SUP		001E17 51N51	THAMES	SIMPLEX						1636.40 KHZ	
223	G	TYNE TEES COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 30.0 DBW	ND	001W33 55N19	360 KM		411
SUP		001W33 55N19	TYNETEES	SIMPLEX						1636.40 KHZ	
224	G	YARMOUTH COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	001E19 52N56	180 KM		411
SUP		001E19 52N56	YARMOUTH	SIMPLEX						1636.40 KHZ	
225	G	ABERDEEN COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 30.0 DBW	ND	002W03 57N08	360 KM		412
SUP		002W03 57N08	ABERDEEN	SIMPLEX						1636.40 KHZ	
232	G	BRIXHAM COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	004W13 50N19	180 KM		412
SUP		004W13 50N19	BRIXHAM	SIMPLEX						1636.40 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 22
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
237 SUP	G	CLYDE COASTGUARD 004W48 55N49	FC OT CLYDE	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W48 55N49 180 KM	1636.40 KHZ	412
240 MOD	G	HEBRIDES RADIO 007W02 58N14	FC CP HEBRIDES	0000-2400 DUPLEX	2K80J3EJN	X 30.0 DBW	ND	007W02 58N14 320 KM	1793.4000 KHZ 1636.40 KHZ	
241 SUP	G	DOVER COASTGUARD 001E22 51N10	FC OT DOVER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001E22 51N10 180 KM	1647.5000 KHZ 1636.40 KHZ	412
246 SUP	G	FALMOUTH COASTGUARD 005W03 50N09	FC OT FALMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	005W03 50N09 180 KM	1636.40 KHZ	412
247 SUP	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W28 50N59 180 KM	1636.40 KHZ	412
248 SUP	G	HOLYHEAD COASTGUARD 004W38 53N19	FC OT HOLYHEAD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	004W38 53N19 180 KM	1647.5000 KHZ 1636.40 KHZ	412
249 SUP	G	HUMBER COASTGUARD 000W06 54N07	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	000W06 54N07 180 KM	1636.40 KHZ	412
253 SUP	G	LANDS END COASTGUARD 005W41 50N02	FC OT LANDSEND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	005W41 50N02 360 KM	1636.40 KHZ	412
255 SUP	G	LIVERPOOL COASTGUARD 003W03 53N30	FC OT LIVERPOO	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	003W03 53N30 180 KM	1647.5000 KHZ 1636.40 KHZ	412
256 SUP	G	MILFORD HAVEN CGUARD 005W16 51N41	FC OT MILFORD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	005W16 51N41 180 KM	1647.5000 KHZ 1636.40 KHZ	412
257 SUP	G	MORAY COASTGUARD 001W46 57N30	FC OT MORAY	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001W46 57N30 180 KM	1636.40 KHZ	412
263 SUP	G	PENTLAND COASTGUARD 002W57 58N59	FC OT PENTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	002W57 58N59 180 KM	1636.40 KHZ	412
266 SUP	G	PORTLAND COASTGUARD 002W25 50N33	FC OT PORTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	002W25 50N33 180 KM	1636.40 KHZ	412
271 SUP	G	SHETLAND COASTGUARD 001W08 60N09	FC OT SHETLAND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 DBW	ND	001W08 60N09 360 KM	1647.5000 KHZ 1636.40 KHZ	412
272 SUP	G	SHOREHAM COASTGUARD 000W15 50N49	FC OT SHOREHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	000W15 50N49 180 KM	1636.40 KHZ	412
279 SUP	G	STORNOWAY COASTGUARD 006W21 58N13	FC OT STORNOWA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	006W21 58N13 180 KM	1647.5000 KHZ 1636.40 KHZ	412
282 SUP	G	SWANSEA COASTGUARD 003W58 51N34	FC OT SWANSEA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	003W58 51N34 180 KM	1636.40 KHZ	412
283 SUP	G	THAMES COASTGUARD 001E17 51N51	FC OT THAMES	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 DBW	ND	001E17 51N51 180 KM	1636.40 KHZ	412

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 23
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
286	G	TYNE TEES COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 30.0 DBW	ND	001W33 55N19	360 KM		412
SUP		001W33 55N19	TYNETEES	SIMPLEX						1636.40 KHZ	
288	G	YARMOUTH COASTGUARD	FC OT	0000-2400	2K80J3EJN	X 24.0 DBW	ND	001E19 52N56	180 KM		412
SUP		001E19 52N56	YARMOUTH	SIMPLEX						1636.40 KHZ	
289	G	BISHOP ROCK LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	006W26 49N52	150 KM	1652.5000 KHZ	413
SUP		006W26 49N52	BISHOP R	SIMPLEX						1636.40 KHZ	
290	G	EDDYSTONE LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	004W15 50N10	150 KM	1662.5000 KHZ	413
SUP		004W15 50N10	EDDYSTON	SIMPLEX						1636.40 KHZ	
291	G	LONGSHIPS LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	001W36 55N38	150 KM	1652.5000 KHZ	413
SUP		001W36 55N38	LONGSHIP	SIMPLEX						1636.40 KHZ	
292	G	ROUND ISLAND LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	006W19 49N58	150 KM	1652.5000 KHZ	413
SUP		006W19 49N58	ROUNDISL	SIMPLEX						1636.40 KHZ	
294	G	WOLF ROCK LSTN	FC OT	0000-2400	2K80J3EJN	X 20.0 DBW	ND	005W48 49N56	150 KM	1652.5000 KHZ	413
SUP		005W48 49N56	WOLFROCK	SIMPLEX						1636.40 KHZ	
2830	GHA	TEMA	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	000W00 05N37	600 KM	516.0000 KHZ	
ADD		000W00 05N37	9GX	SIMPLEX						435.50 KHZ	
2832	GHA	TEMA	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	000W00 05N37	600 KM	500.0000 KHZ	
ADD		000W00 05N37	9GX	SIMPLEX						1636.40 KHZ	
2833	GHA	TAKORADI	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	001W45 04N54	600 KM	432.0000 KHZ	
ADD		001W45 04N54	9GA	SIMPLEX						1636.40 KHZ	
2834	GHA	TAKORADI	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	001W45 04N54	600 KM	520.0000 KHZ	
ADD		001W45 04N54	9GA	SIMPLEX						1636.40 KHZ	
50	GIB	GIBRALTAR	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	005W21 36N07	320 KM		397
SUP	G	005W21 36N07	ZDK	DUPLEX						435.00 KHZ	
54	GIB	GIBRALTAR	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	005W21 36N07	320 KM		398
SUP	G	005W21 36N07	ZDK	DUPLEX						1606.50 KHZ	
2828	GMB	BANJUL	FC CP	0700-1900	100HA1A	X 27.8 DBW	ND	016W50 13N16	800 KM	438.0000 KHZ	
ADD		016W50 13N16		DUPLEX						435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2811	GNE	BASILE	FC CP	0000-2400	2K50A1B	X 31.8 DBW	ND	008E49 03N41	2000 KM	500.0000 KHZ	
ADD		008E49 03N41		DUPLEX						435.50 KHZ	
2812	GNE	MBINI	FC CP	0000-2400	2K50A1B	X 31.8 DBW	ND	009E38 01N34	2000 KM	500.0000 KHZ	
ADD		009E38 01N34		DUPLEX						435.50 KHZ	
2813	GNE	BATA	FC CO	0000-2400	2K80J3E	X 26.0 DBW	ND	009E44 01N49	500 KM	2000.0000 KHZ	
ADD		009E44 01N49		DUPLEX						1636.40 KHZ	
2814	GNE	BATA	FC CO	0000-2400	2K80J3E	X 26.0 DBW	ND	009E44 01N49	500 KM	2000.0000 KHZ	
ADD		009E44 01N49		DUPLEX						1636.40 KHZ	
2601	GRC	MOURNIES KRITIS	FC CO	0000-2400	2K70J3EJN	X 33.0 DBW	ND	024E01 35N29	370 KM	2150.0000 KHZ	
ADD		024E01 35N29	SXH	DUPLEX						1636.40 KHZ	
2602	GRC	MOURNIES KRITIS	FC CO	0000-2400	2K70J3EJN	X 33.0 DBW	ND	024E01 35N29	370 KM	2157.5000 KHZ	
ADD		024E01 35N29	SXH	DUPLEX						1636.40 KHZ	
2603	GRC	SPATA ATTIKIS	FC CO	0000-2400	2K70J3EJN	X 33.0 DBW	ND	023E55 37N58	370 KM	2118.0000 KHZ	
ADD		023E55 37N58	SXA	DUPLEX						1636.40 KHZ	
2604	GRC	SPATA ATTIKIS	FC CO	0000-2400	2K70J3EJN	X 33.0 DBW	ND	023E55 37N58	370 KM	2090.0000 KHZ	
ADD		023E55 37N58	SXA	DUPLEX						1636.40 KHZ	
2605	GRC	SPATA ATTIKIS	FC CO	0000-2400	304HF1BCN	X 30.0 DBW	ND	023E55 37N58	370 KM	2000.0000 KHZ	
ADD		023E55 37N58	SXA	DUPLEX						1607.00 KHZ	
2606	GRC	SPATA ATTIKIS	FC CO	0000-2400	304HF1BCN	X 30.0 DBW	ND	023E55 37N58	370 KM		
ADD		023E55 37N58	SXA	DUPLEX							
2607	GRC	MOURNIES KRITIS	FC CO	0000-2400	304HF1BCN	X 30.0 DBW	ND	024E01 35N29	370 KM		
ADD		024E01 35N29	SXH	DUPLEX						435.50 KHZ	
2608	GRC	MOURNIES KRITIS	FC CO	0000-2400	304HF1BCN	X 30.0 DBW	ND	024E01 35N29	370 KM		
ADD		024E01 35N29	SXH	DUPLEX						435.50 KHZ	
2609	GRC	MOURNIES KRITIS	FC CO	0000-2400	100HA1AAN	X 37.0 DBW	ND	024E01 35N29	370 KM	2122.0000 KHZ	
ADD		024E01 35N29	SXH	DUPLEX						1607.00 KHZ	
2610	GRC	SPATA ATTIKIS	FC CO	0000-2400	100HA1AAN	X 37.0 DBW	ND	023E55 37N58	370 KM	2102.5000 KHZ	
ADD		023E55 37N58	SXA	DUPLEX						1607.00 KHZ	
2611	GRC	SPATA ATTIKIS	FC CO	0000-2400	100HA1AAN	X 37.0 DBW	ND	023E55 37N58	370 KM	2077.5000 KHZ	
ADD		023E55 37N58	SXA	DUPLEX						1607.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2815 ADD	GUI	CONAKRY 013W43 09N31	FC CP	0000-2400 DUPLEX	1K70A1B	X 33.0 DBW	ND	013W43 09N31	300 KM	500.0000 KHZ 435.50 KHZ	
2816 ADD	GUI	CONAKRY 013W43 09N31	FC CR	0000-2400 DUPLEX	2K80J3E	X 17.0 DBW	ND	029E51 31N11	70 KM	1637.5000 KHZ 1636.40 KHZ	
438 MOD	HOL	VLISSINGEN 003E37 51N27	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 26.0 DBW	ND	003E37 51N27	100 KM	1628.9000 KHZ 1636.40 KHZ	
439 MOD	HOL	HOEK VAN HOLLAND 004E07 52N00	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 26.0 DBW	ND	004E07 52N00	100 KM	1643.9000 KHZ 1636.40 KHZ	
440 MOD	HOL	TERSCHELLING LSTN 005E13 53N22	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 26.0 DBW	ND	005E13 53N22	300 KM	1658.9000 KHZ 1636.40 KHZ	
441 MOD	HOL	IJMUIDEN 004E35 52N28	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 26.0 DBW	ND	004E35 52N28	100 KM	1702.4000 KHZ 1636.40 KHZ	
445 MOD	HOL	VLISSINGEN 003E37 51N27	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 20.0 DBW	ND	003E37 51N27	180 KM	1625.9000 KHZ 1636.40 KHZ	
446 MOD	HOL	DEN HELDER 004E45 52N55	FC CP PBB3	0000-2400 DUPLEX	2K80J3EJN	X 20.0 DBW	ND	004E45 52N55	180 KM	1720.4000 KHZ 1636.40 KHZ	
448 MOD	HOL	DEN HELDER 004E45 52N55	FC CP PBB3	0000-2400 DUPLEX	2K80J3EJN	X 30.0 DBW	ND	004E45 52N55	360 KM	1723.4000 KHZ 1636.40 KHZ	
449 MOD	HOL	AMSTERDAM 004E51 52N22	FC CP PBA3	0000-2400 DUPLEX	2K80J3EJN	X 20.0 DBW	ND	004E51 52N22	180 KM	1699.4000 KHZ 1636.40 KHZ	
648 MOD	I	LA SPEZIA 009E43 44N06	FC CO ICS	0000-2400 DUPLEX	304HF1B	X 27.0 DBW	ND	009E43 44N06	380 KM	435.50 KHZ	
649 MOD	I	LA SPEZIA 009E43 44N06	FC CO ICS	0000-2400 DUPLEX	304HF1B	X 27.0 DBW	ND	009E43 44N06	380 KM	435.50 KHZ	
699 MOD	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	304HF1B	X 33.0 DBW	ND	010E11 43N29	600 KM	1607.00 KHZ	
719 MOD	I	ANCONA RADIO 013E28 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	013E28 43N36	400 KM	1636.40 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
720 SUP	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	013E18 46N36	400 KM	1636.40 KHZ	
721 MOD	I	ANCONA RADIO 013E28 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	013E28 43N36	400 KM	1636.40 KHZ	
722 SUP	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	013E18 46N36	400 KM	1636.40 KHZ	
723 MOD	I	ANCONA RADIO 013E28 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 DBW	ND	013E28 43N36	400 KM	1636.40 KHZ	
724 SUP	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	013E18 46N36	400 KM	1636.40 KHZ	
725 SUP	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	015E13 37N13	400 KM	1641.4000 KHZ 1636.40 KHZ	
727 SUP	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	015E13 37N13	400 KM	1644.4000 KHZ 1636.40 KHZ	
730 SUP	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	015E13 37N13	400 KM	1636.40 KHZ	
731 SUP	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	016E59 41N05	400 KM	1769.4000 KHZ 1636.40 KHZ	
733 SUP	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	016E59 41N05	400 KM	1772.4000 KHZ 1636.40 KHZ	
735 SUP	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	016E59 41N05	400 KM	2577.4000 KHZ 1636.40 KHZ	
738 SUP	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	016E59 41N05	400 KM	1636.40 KHZ	
740 SUP	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	009E07 39N15	400 KM	1720.4000 KHZ 1636.40 KHZ	
742 SUP	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	009E07 39N15	400 KM	1723.4000 KHZ 1636.40 KHZ	
744 SUP	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	009E07 39N15	400 KM	1636.40 KHZ	
745 SUP	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	009E07 39N15	400 KM	1636.40 KHZ	
747 SUP	I	CIVITAVECCHIA RADIO 011E49 42N01	FC CP IPD	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	011E49 42N01	400 KM	1706.4000 KHZ 1636.40 KHZ	
749 SUP	I	CIVITAVECCHIA RADIO 011E49 42N01	FC CP IPD	0000-2400 DUPLEX	2K80R3E	X 30.0 DBW	ND	011E49 42N01	400 KM	1703.4000 KHZ 1636.40 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 27
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
751	I	CROTONE RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	017E08 39N03	400 KM	1713.4000 KHZ	
SUP		017E08 39N03	IPC	DUPLEX						1636.40 KHZ	
753	I	CROTONE RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	017E08 39N03	400 KM	1716.4000 KHZ	
SUP		017E08 39N03	IPC	DUPLEX						1636.40 KHZ	
755	I	GENOVA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	008E56 44N25	400 KM	1665.4000 KHZ	
SUP		008E56 44N25	ICB	DUPLEX						1636.40 KHZ	
757	I	GENOVA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	008E56 44N25	400 KM	1668.4000 KHZ	
SUP		008E56 44N25	ICB	DUPLEX						1636.40 KHZ	
760	I	GENOVA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	008E56 44N25	400 KM		
SUP		008E56 44N25	ICB	DUPLEX						1636.40 KHZ	
762	I	GENOVA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	008E56 44N25	400 KM		
SUP		008E56 44N25	ICB	DUPLEX						1636.40 KHZ	
763	I	LAMPEDUSA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E36 35N30	400 KM	1736.4000 KHZ	
SUP		012E36 35N30	IQN	DUPLEX						1636.40 KHZ	
765	I	LAMPEDUSA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E36 35N30	400 KM	1739.4000 KHZ	
SUP		012E36 35N30	IQN	DUPLEX						1636.40 KHZ	
768	I	LIVORNO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	010E11 43N29	400 KM		
SUP		010E11 43N29	IPL	DUPLEX						1636.40 KHZ	
770	I	LIVORNO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	010E11 43N29	400 KM		
SUP		010E11 43N29	IPL	DUPLEX						1636.40 KHZ	
772	I	LIVORNO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	010E11 43N29	400 KM		
SUP		010E11 43N29	IPL	DUPLEX						1636.40 KHZ	
773	I	MAZARA VALLO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E34 37N38	400 KM	1695.4000 KHZ	
SUP		012E34 37N38	IQQ	DUPLEX						1636.40 KHZ	
775	I	MAZARA VALLO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E34 37N38	400 KM	1698.4000 KHZ	
SUP		012E34 37N38	IQQ	DUPLEX						1636.40 KHZ	
777	I	MAZARA VALLO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E34 37N38	400 KM	2209.4000 KHZ	
SUP		012E34 37N38	IQQ	DUPLEX						1636.40 KHZ	
779	I	MAZARA VALLO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E34 37N38	400 KM	2212.4000 KHZ	
SUP		012E34 37N38	IQQ	DUPLEX						1636.40 KHZ	
781	I	MESSINA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	015E33 38N11	400 KM	1797.4000 KHZ	
SUP		015E33 38N11	IDF	DUPLEX						1636.40 KHZ	
783	I	MESSINA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	015E33 38N11	400 KM	1800.4000 KHZ	
SUP		015E33 38N11	IDF	DUPLEX						1636.40 KHZ	
786	I	MESSINA RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	015E33 38N11	400 KM		
SUP		015E33 38N11	IDF	DUPLEX						1636.40 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
787	I	NAPOLI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	014E14 40N50	400 KM	1633.4000 KHZ	
SUP		014E14 40N50	IQH	DUPLEX						1636.40 KHZ	
789	I	NAPOLI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	014E14 40N50	400 KM	1636.4000 KHZ	
SUP		014E14 40N50	IQH	DUPLEX						1636.40 KHZ	
792	I	NAPOLI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	014E14 40N50	400 KM	1676.4000 KHZ	
SUP		014E14 40N50	IQH	DUPLEX						1636.40 KHZ	
793	I	NAPOLI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	014E14 40N50	400 KM	1679.4000 KHZ	
SUP		014E14 40N50	IQH	DUPLEX						1636.40 KHZ	
795	I	PALERMO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E22 38N07	400 KM	1703.4000 KHZ	
SUP		013E22 38N07	IPP	DUPLEX						1636.40 KHZ	
797	I	PALERMO RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E22 38N07	400 KM	1706.4000 KHZ	
SUP		013E22 38N07	IPP	DUPLEX						1636.40 KHZ	
799	I	PORTO TORRES RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	008E23 40N50	400 KM	1804.4000 KHZ	
SUP		008E23 40N50	IZN	DUPLEX						1636.40 KHZ	
801	I	PORTO TORRES RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	008E23 40N50	400 KM	1807.4000 KHZ	
SUP		008E23 40N50	IZN	DUPLEX						1636.40 KHZ	
804	I	PORTO TORRES RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	008E23 40N50	400 KM		
SUP		008E23 40N50	IZN	DUPLEX						1636.40 KHZ	
806	I	S BENEDETTO TRONTO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E52 42N57	400 KM		
SUP		013E52 42N57	IQP	DUPLEX						1636.40 KHZ	
808	I	S BENEDETTO TRONTO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E52 42N57	400 KM		
SUP		013E52 42N57	IQP	DUPLEX						1636.40 KHZ	
810	I	S BENEDETTO TRONTO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E52 42N57	400 KM		
SUP		013E52 42N57	IQP	DUPLEX						1636.40 KHZ	
811	I	TRAPANI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E30 38N01	400 KM	1736.4000 KHZ	
SUP		012E30 38N01	IQM	DUPLEX						1636.40 KHZ	
813	I	TRAPANI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E30 38N01	400 KM	1739.4000 KHZ	
SUP		012E30 38N01	IQM	DUPLEX						1636.40 KHZ	
815	I	TRAPANI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E30 38N01	400 KM	1809.4000 KHZ	
SUP		012E30 38N01	IQM	DUPLEX						1636.40 KHZ	
817	I	TRAPANI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E30 38N01	400 KM	1812.4000 KHZ	
SUP		012E30 38N01	IQM	DUPLEX						1636.40 KHZ	
819	I	TRAPANI RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	012E30 38N01	400 KM	1849.4000 KHZ	
SUP		012E30 38N01	IQM	DUPLEX						1636.40 KHZ	
821	I	TRIESTE RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E46 45N40	400 KM	1641.4000 KHZ	
SUP		013E46 45N40	IQX	DUPLEX						1636.40 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 29
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
823	I	TRIESTE RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E46 45N40 400 KM	1644.4000 KHZ	
SUP		013E46 45N40	IQX	DUPLEX					1636.40 KHZ	
825	I	TRIESTE RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E46 45N40 400 KM	1846.4000 KHZ	
SUP		013E46 45N40	IQX	DUPLEX					1636.40 KHZ	
827	I	TRIESTE RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E46 45N40 400 KM	1849.4000 KHZ	
SUP		013E46 45N40	IQX	DUPLEX					1636.40 KHZ	
829	I	TRIESTE RADIO	FC CP	0000-2400	2K80R3E	X 30.0 DBW	ND	013E46 45N40 400 KM	2212.4000 KHZ	
SUP		013E46 45N40	IQX	DUPLEX					1636.40 KHZ	
832	I	VENEZIA RADIO	FC CP	0000-2400	2K80R3E	X 33.0 DBW	ND	012E21 45N26 600 KM	1678.4000 KHZ	
SUP		012E21 45N26	IPN	DUPLEX					1636.40 KHZ	
833	I	VENEZIA RADIO	FC CP	0000-2400	2K80R3E	X 33.0 DBW	ND	012E21 45N26 600 KM	1681.4000 KHZ	
SUP		012E21 45N26	IPN	DUPLEX					1636.40 KHZ	
836	I	VENEZIA RADIO	FC CP	0000-2400	2K80R3E	X 33.0 DBW	ND	012E21 45N26 600 KM		
SUP		012E21 45N26	IPN	DUPLEX					1636.40 KHZ	
2538	I	MAZARA VALLO	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	012E34 37N38 600 KM		
ADD		012E34 37N38	IQQ	DUPLEX					435.50 KHZ	
2539	I	MAZARA VALLO	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	012E34 37N38 600 KM	500.0000 KHZ	
ADD		012E34 37N38	IQQ	DUPLEX					435.50 KHZ	
2540	I	MAZARA VALLO	FC CP	0000-2400	100HA1A	X 33.0 DBW	ND	012E34 37N38 600 KM		
ADD		012E34 37N38	IQQ	DUPLEX					435.50 KHZ	
2541	I	MAZARA VALLO	FC CP	0000-2400	304HF1B	X 33.0 DBW	ND	012E34 37N38 600 KM	500.0000 KHZ	
ADD		012E34 37N38	IQQ	DUPLEX					435.50 KHZ	
2458	ISR	ELAT RADIO	FC CP	0000-2400	304HF1B	X 34.8 DBW	ND	034E56 29N30 1000 KM		1348
ADD		034E56 29N30	4XA	DUPLEX					436.00 KHZ	
2459	ISR	ELAT RADIO	FC CP	0000-2400	304HF1B	X 34.8 DBW	ND	034E56 29N30 1000 KM		
ADD		034E56 29N30	4XA	DUPLEX					1615.00 KHZ	
2460	ISR	ELAT RADIO	FC CP	0000-2400	2K99R3E	X 34.8 DBW	ND	034E56 29N30 1000 KM		1349
ADD		034E56 29N30		DUPLEX					1701.00 KHZ	
2612	KEN	MOMBASA RADIO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	039E44 03S58 500 KM		1378
ADD		039E44 03S58	5ZF	DUPLEX					1707.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2613	KEN	MOMBASA RADIO	FC CP	0000-2400	304HF1B	X 30.0 DBW	ND	039E44 03S58	600 KM		1379
ADD		039E44 03S58	5ZF	DUPLEX						1620.00 KHZ	
2614	KEN	MOMBASA RADIO	FC CP	0000-2400	304HF1BCN	X 34.8 DBW		039E44 03S58	600 KM		1380
ADD		039E44 03S58	5ZF	DUPLEX						526.00 KHZ	
2615	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AN	X 34.8 DBW	ND	039E44 03S58	600 KM		1381
ADD		039E44 03S58	5ZF	DUPLEX						520.00 KHZ	
2616	KEN	MOMBASA RADIO	FC CP	0000-2400	304HF1B	X 30.0 DBW	ND	039E44 03S58	600 KM		1382
ADD		039E44 03S58	5ZF	DUPLEX						1612.00 KHZ	
2617	KEN	MOMBASA RADIO	FC CP	0000-2400	100HA1AN	X 34.8 DBW	ND	039E44 03S58	600 KM		1383
ADD		039E44 03S58	5ZF	DUPLEX						450.00 KHZ	
2618	KEN	MOMBASA RADIO	FC CP	0000-2400	304HF1B	X 34.8 DBW	ND	039E44 03S58	600 KM		1384
ADD		039E44 03S58	5ZF	DUPLEX						440.00 KHZ	
2619	KEN	MOMBASA RADIO	FC CP	0000-2400	2K80J3E	X 30.0 DBW	ND	039E44 03S58	500 KM		1385
ADD		039E44 03S58	5ZF	DUPLEX						1650.00 KHZ	
2523	KWT	HUBAN	FC CP	0000-2400	6K00B8E	X 30.0 DBW	ND	047E41 29N31	160 KM	2072.0000 KHZ	
ADD		047E41 29N31		SIMPLEX						1636.40 KHZ	
2524	KWT	HUBAN	FC CP	0000-2400	6K00B8E	X 30.0 DBW	ND	047E41 29N31	160 KM	1621.0000 KHZ	
ADD		047E41 29N31		SIMPLEX						1636.40 KHZ	
2525	KWT	RAS ALZOOR	FC CP	0300-2100	2K80J3E	X 33.0 DBW	ND	047E56 28N28	800 KM	2111.0000 KHZ	
ADD		047E56 28N28		DUPLEX						1636.40 KHZ	
2526	KWT	AHMADI	FC CV	0300-2100	100HA1A	X 27.0 DBW	ND	048E04 29N06	800 KM	472.0000 KHZ	
ADD		048E04 29N06	9KK	SIMPLEX						435.50 KHZ	
2527	KWT	RAS ALZOOR	FC CV	0300-2100	1K15A2B	X 23.0 DBW	ND	048E56 28N28	800 KM	465.0000 KHZ	
ADD		048E56 28N28	9KK	SIMPLEX						435.50 KHZ	
2528	KWT	HUBAN	FC CP	0000-2400	2K10A2B	X 34.8 DBW	ND	047E41 29N31	800 KM	422.0000 KHZ	
ADD		047E41 29N31	9KK	SIMPLEX						435.50 KHZ	
2529	KWT	HUBAN	FC CP	0000-2400	100HA1A	X 34.8 DBW	ND	047E41 29N31	800 KM	422.0000 KHZ	
ADD		047E41 29N31	9KK	SIMPLEX						435.50 KHZ	
2530	KWT	AHMADI	FC CV	0300-2100	1K15A2B	X 27.0 DBW	ND	048E04 29N06	800 KM	472.0000 KHZ	
ADD		048E04 29N06	9KK	SIMPLEX						435.50 KHZ	
2531	KWT	HUBAN	FC CP	0300-2100	3K00R3E	X 20.0 DBW	ND	047E41 29N31	500 KM	1650.0000 KHZ	
ADD		047E41 29N31		SIMPLEX						1636.40 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 31
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2532	KWT	RAS ALZOOR	FC CP	0300-2100	340HF1B	X 33.0 DBW	ND	048E56 28N28	800 KM	433.0000 KHZ	
ADD		048E56 28N28		SIMPLEX						435.50 KHZ	
2533	KWT	RAS ALZOOR	FC CP	0300-2100	340HF1B	X 33.0 DBW	ND	048E56 28N28	800 KM	511.0000 KHZ	
ADD		048E56 28N28		DUPLEX						435.50 KHZ	
2534	KWT	RAS ALZOOR	FC CP	0300-2100	340HF1B	X 33.0 DBW	ND	048E56 28N28	800 KM	1608.0000 KHZ	
ADD		048E56 28N28		DUPLEX						1607.00 KHZ	
2535	KWT	RAS ALZOOR	FC CP	0300-2100	2K80J3E	X 33.0 DBW	ND	048E56 28N28	800 KM	1731.0000 KHZ	
ADD		048E56 28N28		DUPLEX						1636.40 KHZ	
2536	KWT	RAS ALZOOR	FC CP	0300-2100	2K80J3E	X 33.0 DBW	ND	048E56 28N28	800 KM	1761.0000 KHZ	
ADD		048E56 28N28		DUPLEX						1636.40 KHZ	
2537	KWT	RAS ALZOOR	FC CP	0300-2100	2K99R3E	X 33.0 DBW	ND	048E56 28N28	500 KM	2088.0000 KHZ	
ADD		048E56 28N28		DUPLEX						1636.40 KHZ	
2817	KWT	HUBAN	FC CP	0000-2400	2K10A1B	X 34.8 DBW	ND	029E51 31N11	800 KM	422.0000 KHZ	
ADD		047E41 29N31		DUPLEX						435.50 KHZ	
2818	KWT	HUBAN	FC CP	0300-2100	2K80J3E	X 20.0 DBW	ND	047E41 29N31	500 KM	1650.0000 KHZ	
ADD		047E41 29N31		DUPLEX						1636.40 KHZ	
2819	KWT	SHOWAIKH	FC CP	0400-1900	2K00A1B	X 33.0 DBW	ND	047E59 29N23	800 KM	450.0000 KHZ	
ADD		047E59 29N23		DUPLEX						435.50 KHZ	
2820	KWT	RAS LA KHAFJI	FC CV	0500-1600	1K15A1B	X 23.0 DBW	ND	048E56 28N28	800 KM	500.0000 KHZ	
ADD		048E56 28N28		DUPLEX						435.50 KHZ	
2821	KWT	AHMADI	FC CV	0400-1900	100HA1A	X 27.0 DBW	ND	048E04 29N06	800 KM	500.0000 KHZ	
ADD		048E04 29N06		DUPLEX						435.50 KHZ	
2836	LBN	BEYROUTH KHALD	FC CP	0400-2200	100HA1A	X 34.0 DBW	ND	035E29 33N48	500 KM		
ADD		035E29 33N48		DUPLEX						524.00 KHZ	
2838	LBN	BEYROUTH KHALD	FC CP	0000-2400	2K80J3E	X 24.8 DBW	ND	035E29 33N48	400 KM		
ADD		035E29 33N48		DUPLEX						1694.00 KHZ	
2839	LBR	GR BASSA	FC CP	0800-2300	100HA1A	X 34.8 DBW	ND	010W21 06N07	400 KM		
ADD		010W21 06N07		DUPLEX						500.00 KHZ	
2846	LBR	HARPER C PALMA	FC CP	0800-2300	100HA1A	X 34.8 DBW	ND	007W44 04N22	400 KM		
ADD		007W44 04N22		DUPLEX						500.00 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 32
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2852 ADD	LBR	HARPER C PALMA 007W44 04N22	FC CP	0800-2300 DUPLEX	100HA1A	X 30.0 DBW	ND	007W44 04N22 400 KM	524.00 KHZ	
2853 ADD	LBR	MONROVIA 010W48 06N18	FC CP	0800-2300	100HA1A	X 34.8 DBW	ND	010W48 06N18 400 KM	500.00 KHZ	
2837 ADD	LBY	TOBRUK 023E59 32N02	FC CV	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	023E59 32N02 400 KM	435.50 KHZ	
1751 MOD	MDR POR	PORTO SANTO 016W20 33N05	FC CO CTQ	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	016W20 33N05 600 KM	435.50 KHZ	1359
1752 MOD	MDR POR	PORTO SANTO 016W20 33N05	FC CO CTQ	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	016W20 33N05 600 KM	435.50 KHZ	1363
1753 MOD	MDR POR	MADEIRA 016W50 32N38	FC CP CUB	0000-2400 DUPLEX	304HF1BCN	X 26.0 DBW	ND	016W50 32N38 400 KM	435.50 KHZ	1231
1754 MOD	MDR POR	PORTO SANTO 016W20 33N05	FC CO CTQ	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	016W20 33N05 600 KM	435.50 KHZ	1362
531 MOD	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 DBW	ND	014E24 35N49 1000 KM	1734.0000 KHZ 1636.40 KHZ	
532 MOD	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 DBW	ND	014E24 35N49 1000 KM	1692.0000 KHZ 1636.40 KHZ	
533 MOD	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 DBW	ND	014E24 35N49 1000 KM	1659.0000 KHZ 1636.40 KHZ	
534 MOD	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	304HF1BCN	X 37.0 DBW	ND	014E24 35N49 1000 KM	1614.5000 KHZ 1607.00 KHZ	77
535 MOD	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	304HF1BCN	X 37.0 DBW	ND	014E24 35N49 1000 KM	1621.0000 KHZ 1607.00 KHZ	78
1587 MOD	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	100HA1AAN	X 34.8 DBW	ND	014E32 35N49 1000 KM	448.0000 KHZ 435.50 KHZ	
1588 MOD	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	100HA1AAN	X 34.8 DBW	ND	014E32 35N49 1000 KM	515.0000 KHZ 435.50 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 33
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
1589 MOD	MLT	MALTA RADIO 014E24 35N49	FC CP	0000-2400 SIMPLEX	304HF1BCN	X 34.8 DBW	ND	014E24 35N49	1000 KM	444.5000 KHZ 435.50 KHZ	78
1590 MOD	MLT	MALTA RADIO 014E24 35N49	FC CP	0000-2400 SIMPLEX	304HF1BCN	X 34.8 DBW	ND	014E24 35N49	1000 KM	516.5000 KHZ 435.50 KHZ	77
2419 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1758.0000 KHZ 1636.40 KHZ	
2420 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	304HF1BCN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1746.0000 KHZ 1607.00 KHZ	77
2421 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1644.0000 KHZ 1636.40 KHZ	
2422 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1794.0000 KHZ 1636.40 KHZ	
2423 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	304HF1BCN	X 37.0 DBW	ND	014E32 35N49	1000 KM	1614.0000 KHZ 1607.00 KHZ	78
2424 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	100HA1AAN	X 34.8 DBW	ND	014E32 35N49	1000 KM	449.5000 KHZ 435.50 KHZ	
2425 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	100HA1AAN	X 34.8 DBW	ND	014E32 35N49	1000 KM	510.5000 KHZ 435.50 KHZ	
2426 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	304HF1BCN	X 34.8 DBW	ND	014E32 35N49	1000 KM	487.0000 KHZ 435.50 KHZ	77
2427 MOD	MLT	XLOKK RADIO 014E32 35N49	FC CP 9HJ	0000-2400 SIMPLEX	304HF1BCN	X 34.8 DBW	ND	014E32 35N49	1000 KM	421.5000 KHZ 435.50 KHZ	78
2543 ADD	MRC	DAKHLA RADIO 015W56 23N42	FC CP CNK	0000-2400	304HF1B	X 15.0 DBW	ND	015W56 23N42	400 KM	435.50 KHZ	
2544 ADD	MRC	EL JADIDA RADIO 008W40 33N07	FC CP CNJ	0000-2400	2K80H3E	X 30.0 DBW	ND	008W40 33N07	300 KM	1608.0000 KHZ 1636.40 KHZ	
2545 ADD	MRC	MDIQ RADIO 005W20 35N40	FC CP CND	0000-2400		X 25.0 DBW	ND	005W20 35N40	100 KM	1674.0000 KHZ 1607.00 KHZ	
2546 ADD	MRC	MDIQ RADIO 005W20 35N40	FC CND	0000-2400	2K80H3E	X 25.0 DBW	ND	005W20 35N40	100 KM	1636.40 KHZ	
2547 ADD	MRC	TANTAN RADIO 011W07 28N35	FC CP CNT	0000-2400	2K80H3E	X 34.0 DBW	ND	011W07 28N35	200 KM	448.0000 KHZ 1636.40 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2548 ADD	MRC	TANTAN RADIO 011W07 28N35	FC CP CNT	0000-2400	2K80H3E	X 30.0 DBW	ND	011W07 28N35	200 KM	1755.0000 KHZ 1636.40 KHZ	
2565 ADD	MRC	NADOR RADIO 002E56 35N10	FC CP CNG	0000-2400	304HF1B	X 35.0 DBW	ND	002E56 35N10	300 KM	435.50 KHZ	
2566 ADD	MRC	EL JADIDA RADIO 008W40 33N07	FC CP CNJ	0000-2400	2K80H3E	X 30.0 DBW	ND	008W40 33N07	300 KM	436.0000 KHZ 1636.40 KHZ	
2567 ADD	MRC	EL HOCEIMA RADIO 003W58 35N10	FC CP CNM	0000-2400	2K80H3E	X 15.0 DBW	ND	003W58 35N10	200 KM	445.0000 KHZ 1636.40 KHZ	
2568 ADD	MRC	EL HOCEIMA RADIO 003W58 35N10	FC CNM	0000-2400	2K80H3E	X 15.0 DBW	ND	003W58 35N10	200 KM	1660.0000 KHZ 1636.40 KHZ	
2569 ADD	MRC	LAAYOUNE RADIO 013W13 27N10	FC CP CNL	0000-2400	304HF1B	X 25.0 DBW	ND	013W13 27N10	400 KM	435.50 KHZ	
2570 ADD	MRC	CASABLANCA RADIO 007W34 33N34	FC CP CND	0000-2400	304HF1B	X 33.0 DBW	ND	007W34 33N34	400 KM	435.50 KHZ	
2571 ADD	MRC	AGADIR RADIO 009W33 30N22	FC CP CND	-	2K80H3E	X 35.0 DBW	ND	009W33 30N22	500 KM	1911.0000 KHZ 1607.00 KHZ	1372
2572 ADD	MRC	CASABLANCA RADIO 007W34 33N34	FC CND	-	2K80H3E	X 35.0 DBW	ND	007W34 33N34	500 KM	2663.0000 KHZ 1636.40 KHZ	1372
2573 ADD	MRC	CASABLANCA RADIO 007W34 33N34	FC CP CND	-	2K80H3E	X 35.0 DBW	ND	007W34 33N34	500 KM	2586.0000 KHZ 1636.40 KHZ	1372
2574 ADD	MRC	SAFI RADIO 009W14 32N18	FC CP CND3	0000-2400	2K80H3E	X 35.0 DBW	ND	009W14 32N18	500 KM	2635.0000 KHZ 1636.40 KHZ	1372
2575 ADD	MRC	TANGER RADIO 005W51 35N44	FC CP CNW	-	2K80H3E	X 35.0 DBW	ND	005W51 35N44	500 KM	1911.0000 KHZ 1636.40 KHZ	1372
2576 ADD	MRC	TANGER RADIO 005W51 35N44	FC CP CNW	-	2K80H3E	X 35.0 DBW	ND	005W51 35N44	500 KM	2635.0000 KHZ 1636.40 KHZ	1372
2577 ADD	MRC	AGADIR RADIO 009W33 30N22	FC CP CND	-	2K80H3E	X 35.0 DBW	ND	009W33 30N22	KM	2593.0000 KHZ 1636.40 KHZ	1372
2829 ADD	NIG	LAGOS 003E27 06N27	FC CP	0600-2400 DUPLEX	2K00A1B	X 30.0 DBW	ND	003E27 06N27	800 KM	447.00 KHZ	
2831 ADD	NIG	PT HARCOURT 007E01 04N51	FC OT	0500-1700 DUPLEX	100HA1A	X 30.0 DBW	ND	007E01 04N51	480 KM	522.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2835	NIG	BURUTU		FC CV	0000-2400	2K80J3E	X 13.0 DBW	ND	005E30 05N21	50 KM		
ADD			005E30 05N21		DUPLEX						1659.00 KHZ	
2728	OMA	MUSCAT		FC CR	0000-2400	304HF1BCN	X 33.0 DBW	ND	058E30 23N37	400 KM		
ADD			058E30 23N37		DUPLEX						435.50 KHZ	
2731	OMA	SALALAH		FC CR	0000-2400	304HF1BCN	X 33.0 DBW	ND	054E06 17N01	400 KM		
ADD			054E06 17N01		DUPLEX						435.50 KHZ	
2300	POL	GDYNIA		FC CO	0000-2400	2K10A2AAN	X 36.0 DBW	ND	018E32 54N32	1000 KM	421.0000 KHZ	
SUP			018E32 54N32	SPH	SIMPLEX						435.50 KHZ	
2303	POL	GDYNIA		FC CR	0000-2400	2K10A2AAN	X 36.0 DBW	ND	018E32 54N32	1000 KM	458.0000 KHZ	
SUP			018E32 54N32	SPH	SIMPLEX						435.50 KHZ	
2318	POL	MECHELINKI		FC OT	0000-2400	2K70J3EJN	X 25.0 DBW	ND	018E31 54N36	500 KM	1663.4000 KHZ	
MOD			018E31 54N36		DUPLEX						1636.40 KHZ	
2338	POL	SZCZECIN		FC CO	0000-2400	2K10A2AAN	X 33.0 DBW	ND	014E35 53N28	800 KM	447.0000 KHZ	
SUP			014E35 53N28	SPE	SIMPLEX						435.50 KHZ	
2341	POL	SZCZECIN		FC CO	0000-2400	2K10A2AAN	X 33.0 DBW	ND	014E35 53N28	800 KM	512.0000 KHZ	
SUP			014E35 53N28	SPE	SIMPLEX						435.50 KHZ	
2346	POL	WITOWO		FC CP	0000-2400	2K10A2AAN	X 26.0 DBW	ND	016E32 54N33	300 KM	484.0000 KHZ	
MOD			016E32 54N33	SPN	SIMPLEX						435.50 KHZ	
583	POR	MONSANTO		FC CO	0000-2400	100HA1A	X 30.0 DBW	ND	009W11 38N44	500 KM	522.0000 KHZ	122
MOD			009W11 38N44	CTV	DUPLEX						522.00 KHZ	
584	POR	APULIA		FC CO	0000-2400	100HA1A	X 25.4 DBW	ND	008W45 41N29	350 KM	487.0000 KHZ	123
MOD			008W45 41N29	CTN	DUPLEX						510.50 KHZ	
585	POR	SAGRES		FC CO	0000-2400	100HA1A	X 25.4 DBW	ND	008W57 37N00	350 KM	450.0000 KHZ	124
MOD			008W57 37N00	CTS	DUPLEX						450.00 KHZ	
591	POR	FIGUEIRA DA FOZ		FC CP	0000-2400	2K70J3EJN	X 17.0 DBW	ND	008W50 40N08	200 KM	1785.0000 KHZ	127
MOD			008W50 40N08	CUN 514	SIMPLEX						1636.40 KHZ	
597	POR	DOCA PESCA		FC OT	0000-2400	2K70J3EJN	X 17.0 DBW	ND	009W13 38N43	200 KM	1834.0000 KHZ	
MOD			009W13 38N43		SIMPLEX						1636.40 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 36
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
599 MOD	POR	LISBOA	009W13 38N43	FC CV	0000-2400 SIMPLEX	2K70J3EJN	X 12.0 DBW	ND	009W13 38N43	150 KM	1834.0000 KHZ 1636.40 KHZ	1357
1736 MOD	POR	MONSANTO	009W11 38N44	FC CO CTV	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	009W11 38N44	500 KM	435.50 KHZ	1358
1737 MOD	POR	APULIA	008W45 41N29	FC CO CTN	0000-2400 DUPLEX	304HF1B	X 25.4 DBW	ND	008W45 41N29	350 KM	435.50 KHZ	1359
1738 MOD	POR	SAGRES	008W57 37N00	FC CO CTS	0000-2400 DUPLEX	304HF1B	X 25.4 DBW	ND	008W57 37N00	350 KM	435.50 KHZ	1359
1739 MOD	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	304HF1BCN	X 33.0 DBW	ND	009W14 38N44	400 KM	435.50 KHZ	1227
1740 MOD	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	304HF1BCN	X 33.0 DBW	ND	009W14 38N44	400 KM	435.50 KHZ	1228
1741 MOD	POR	MONSANTO	009W11 38N44	FC CO CTV	0000-2400 DUPLEX	304HF1B	X 34.7 DBW	ND	009W11 38N44	1500 KM	435.50 KHZ	1359
1742 MOD	POR	MONSANTO	009W11 38N44	FC CO CTV	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	009W11 38N44	900 KM	435.50 KHZ	1360
1743 MOD	POR	MONSANTO	009W11 38N44	FC CO CTV	0000-2400 DUPLEX	304HF1B	X 30.0 DBW	ND	009W11 38N44	900 KM	1620.0000 KHZ 1620.00 KHZ	1361
1744 MOD	POR	MONSANTO	009W11 38N44	FC CO CTV	0000-2400 DUPLEX	304HF1B	X 34.7 DBW	ND	009W11 38N44	1500 KM	435.50 KHZ	1363
18 MOD	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW	ND	051E35 25N45	600 KM	2000.0000 KHZ 1636.40 KHZ	
19 MOD	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW	ND	051E35 25N45	600 KM	2000.0000 KHZ 1636.40 KHZ	
20 MOD	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80J3E	X 33.0 DBW	ND	051E35 25N45	600 KM	2000.0000 KHZ 1636.40 KHZ	
21 MOD	QAT	DOHA	051E35 25N45	FC CP A7O	0000-2400 SIMPLEX	100HA1A	X 30.0 DBW	ND	051E35 25N45	800 KM	472.0000 KHZ 435.50 KHZ	
22 MOD	QAT	DOHA	051E35 25N45	FC CP A7O	0000-2400 SIMPLEX	100HA1A	X 30.0 DBW	ND	051E35 25N45	800 KM	444.0000 KHZ 435.50 KHZ	
23 MOD	QAT	DOHA	051E35 25N45	FC CP A7O	0000-2400 SIMPLEX	100HA1A	X 30.0 DBW	ND	051E35 25N45	800 KM	430.0000 KHZ 435.50 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 37
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
24 MOD	QAT	DOHA 051E35 25N45	FC CP A7O	0000-2400 SIMPLEX	100HA1A	X 30.0 DBW	ND	051E35 25N45 800 KM	514.0000 KHZ 435.50 KHZ	
2589 ADD	QAT	DOHA 051E35 25N45	FC CP A7D	0000-2400 SIMPLEX	100HA1A	X 35.0 DBW	ND	051E35 25N45 800 KM	484.0000 KHZ 435.50 KHZ	
2822 ADD	SDN	PT SUDAN 037E14 19N38	FC CP	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	037E14 19N38 400 KM	484.0000 KHZ 435.50 KHZ	
42 SUP	SHN G	ST HELENA 005W43 15S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	005W43 15S56 320 KM	435.00 KHZ	397
44 MOD	SHN G	ST HELENA 005W43 15S56	FC CP ZHH	0000-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	005W43 15S56 320 KM	435.00 KHZ	415
46 SUP	SHN G	ST HELENA 005W43 15S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 DBW	ND	005W43 15S56 320 KM	1606.50 KHZ	398
2823 ADD	SOM	MOGADISCIO 045E20 02N02	FC CO	0000-2400 DUPLEX	100HA1A	X 33.0 DBW	ND	045E20 02N02 400 KM	450.0000 KHZ 435.50 KHZ	
2579 ADD	SRL	FTN 013W15 08N29	FC CP 9LL	0000-2400 DUPLEX	H100N0N	X 30.9 DBW	ND	013W15 08N29 300 KM	421.0000 KHZ 435.50 KHZ	
2580 ADD	SRL	FTN 013W15 08N29	FC CP 9LL	0000-2400 DUPLEX	H100N0N	X 30.9 DBW	ND	013W15 08N29 300 KM	500.0000 KHZ 435.50 KHZ	
2824 ADD	SRL	FREETOWN 013W15 08N29	FC CP	0700-2400 DUPLEX	100HA1A	X 30.0 DBW	ND	013W15 08N29 800 KM	421.0000 KHZ 435.50 KHZ	
2774 ADD	SYR	LATTAKIA RADIO 035E47 35N30	FC CP YMK7	0000-2400 DUPLEX	100HA1A	X 27.0 DBW	ND	035E47 35N30 500 KM	432.0000 KHZ 435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2825 ADD	TRC	TRISTANDACUNHA 012W19 27S03	FC CO	0600-1800 DUPLEX	100HA1A	X 26.0 DBW	ND	012W19 27S03 1000 KM	500.0000 KHZ 435.50 KHZ	
2398 MOD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	2K10A2AAN	X 27.0 DBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	410.0000 KHZ 435.50 KHZ	1374
2399 MOD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	2K10A2AAN	X 27.0 DBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	512.0000 KHZ 435.50 KHZ	1374
2402 MOD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 DBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	2210.0000 KHZ 1636.40 KHZ	1376
2403 MOD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 DBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	2719.0000 KHZ 1636.40 KHZ	1376
2413 MOD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	441.0000 KHZ 435.50 KHZ	1373
2414 MOD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	512.0000 KHZ 435.50 KHZ	1373
2415 MOD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	1820.0000 KHZ 1636.40 KHZ	1375
2418 MOD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	2670.0000 KHZ 1636.40 KHZ	1375
2685 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	- DUPLEX	2K70J3E	X		003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	1820.0000 KHZ 1636.40 KHZ	1375
2737 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 SIMPLEX	100HA1A	X 27.0 DBW	ND	009E53 37N16 300 KM	438.00 KHZ	1441
2739 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 SIMPLEX	100HA1A	X 27.0 DBW	ND	009E53 37N16 300 KM	472.00 KHZ	1442

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 39
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2740 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 SIMPLEX	100HA1A	X 27.0 DBW	ND	008E46 36N50 300 KM	484.00 KHZ	1461
2741 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	009E53 37N16 300 KM	1696.00 KHZ	1443
2742 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	008E46 36N50 300 KM	1755.00 KHZ	1462
2743 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	009E53 37N16 300 KM	1770.00 KHZ	1444
2744 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	008E46 36N50 300 KM	1636.40 KHZ	1463
2745 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	009E53 37N16 300 KM		1445
2746 ADD	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	011E04 35N30 300 KM	1655.00 KHZ	1464
2747 ADD	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	011E04 35N30 300 KM	1771.00 KHZ	1465
2748 ADD	TUN	GABES RADIO 007E45 33N53	FC CP 3CG	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	007E45 33N53 300 KM	1764.00 KHZ	1446
2749 ADD	TUN	GABES RADIO 007E45 33N53	FC CP 3CG	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	007E45 33N53 300 KM		1447
2750 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 SIMPLEX	100HA1A	X 27.0 DBW	ND	006E25 36N57 500 KM	435.50 KHZ	1448
2751 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 SIMPLEX	100HA1A	X 27.0 DBW	ND	006E25 36N57 500 KM	490.00 KHZ	1449
2752 ADD	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	011E04 35N30 300 KM	1785.00 KHZ	1466
2753 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	006E25 36N57 300 KM	1778.00 KHZ	1450
2754 ADD	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	011E04 35N30 300 KM	1636.40 KHZ	1467
2755 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	100HA1A	X 27.0 DBW	ND	010E44 34N44 300 KM	450.00 KHZ	1468
2756 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 DUPLEX	2K70J3EJN	X 26.0 DBW	ND	006E25 36N57 300 KM	1636.40 KHZ	1451
2757 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	100HA1A	X 27.0 DBW	ND	010E44 34N44 300 KM	512.00 KHZ	1469

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2758 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	100HA1A	X 27.0 DBW	ND	010E44 34N44	300 KM	525.00 KHZ	1470
2759 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 DBW	ND	010E11 36N53	300 KM	435.50 KHZ	1452
2760 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 DBW	ND	010E44 34N44	300 KM	1645.00 KHZ	1471
2761 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 DBW	ND	010E44 34N44	300 KM	1725.00 KHZ	1472
2762 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 DBW	ND	010E11 36N53	300 KM	441.00 KHZ	1453
2763 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 DBW	ND	010E44 34N44	300 KM	1636.40 KHZ	1473
2764 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 DBW	ND	010E11 36N53	300 KM	465.00 KHZ	1454
2765 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 DBW	ND	010E44 34N44	300 KM	1636.40 KHZ	1474
2766 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 DBW	ND	010E11 36N53	300 KM	512.00 KHZ	1455
2767 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	010E11 36N53	300 KM	1797.00 KHZ	1457
2768 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	010E11 36N53	300 KM	1620.00 KHZ	1456
2769 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	010E11 36N53	300 KM	1636.40 KHZ	1458
2770 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 DBW	ND	010E11 36N53	300 KM	1636.40 KHZ	1459
2771 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 SIMPLEX	100HA1A	X 27.0 DBW	ND	008E46 36N50	300 KM	435.50 KHZ	1460
2485 ADD	TUR	TOPHANE KULESI 028E59 41N01	FC CO TCR	0000-2400 SIMPLEX	100HA1AAN	X 30.0 DBW	ND	028E59 41N01	250 KM	526.0000 KHZ 435.50 KHZ	
2486 ADD	TUR	ISTANBUL 028E56 41N04	FC CP TAH	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	028E56 41N04	400 KM	511.0000 KHZ 435.50 KHZ	

STATION COTIERE D'EMISSION * TRANSMITTING COAST STATION * ESTACION COSTERA TRANSMISORA 41
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2487 ADD	TUR	ISTANBUL	028E56 41N04	FC CP TAH	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	028E56 41N04	400 KM	521.0000 KHZ 435.50 KHZ	
2488 ADD	TUR	ISTANBUL	028E56 41N04	FC CP TAH	0000-2400 DUPLEX	100HA1AAN	X 37.0 DBW	ND	028E56 41N04	400 KM	449.0000 KHZ 435.50 KHZ	
2489 ADD	TUR	ISKENDERUN	036E07 36N37	FC CP TAM4	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	036E07 36N37	250 KM	445.0000 KHZ 435.50 KHZ	
2490 ADD	TUR	ISKENDERUN	036E07 36N37	FC CP TAM4	0000-2400 SIMPLEX	100HA1AAN	X 30.0 DBW	ND	036E07 36N37	250 KM	444.0000 KHZ 435.50 KHZ	
2491 ADD	TUR	CANAKKALE	026E24 40N08	FC CP TAM	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	026E24 40N08	250 KM	445.0000 KHZ 435.50 KHZ	
2492 ADD	TUR	ANTALYA	030E42 36N53	FC CP TAM6	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	030E42 36N53	250 KM	523.0000 KHZ 435.50 KHZ	
2493 ADD	TUR	ANTALYA	030E42 36N53	FC CP TAM6	0000-2400 SIMPLEX	100HA1AAN	X 30.0 DBW	ND	030E42 36N53	250 KM	446.0000 KHZ 435.50 KHZ	
2494 ADD	TUR	IZMIR	027E10 38N24	FC CP TAN2	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	027E10 38N24	250 KM	448.0000 KHZ 435.50 KHZ	
2495 ADD	TUR	IZMIR	027E10 38N24	FC CP TAN2	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	027E10 38N24	250 KM	513.0000 KHZ 435.50 KHZ	
2496 ADD	TUR	MERSIN	034E36 36N49	FC CP TAM5	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	034E36 36N49	250 KM	437.0000 KHZ 435.50 KHZ	
2497 ADD	TUR	MERSIN	034E36 36N49	FC CP TAM5	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	034E36 36N49	250 KM	447.0000 KHZ 435.50 KHZ	
2498 ADD	TUR	SAMSUN	036E20 41N17	FC CP TAN6	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	036E20 41N17	250 KM	436.0000 KHZ 435.50 KHZ	
2499 ADD	TUR	ZONGULDAK	031E48 41N27	FC CP TAN5	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	031E48 41N27	250 KM	439.0000 KHZ 435.50 KHZ	
2500 SUP	TUR	TRABZON	039E43 41N00	FC CP TA02	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	039E43 41N00	250 KM	447.0000 KHZ 435.50 KHZ	
2501 SUP	TUR	SAMSUN	036E20 41N17	FC CP TAN6	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	036E20 41N17	250 KM	1793.4000 KHZ 1636.40 KHZ	
2502 SUP	TUR	SAMSUN	036E20 41N17	FC CP TAN6	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	036E20 41N17	250 KM	1763.4000 KHZ 1636.40 KHZ	
2503 SUP	TUR	ISKENDERUN	036E07 36N37	FC CP TAM4	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	036E07 36N37	250 KM	1769.4000 KHZ 1636.40 KHZ	
2504 SUP	TUR	MERSIN	034E36 36N49	FC CP TAM5	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	034E36 36N49	250 KM	1664.4000 KHZ 1636.40 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2505 SUP	TUR	MERSIN	034E36 36N49	FC CP TAM5	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	034E36 36N49	250 KM	1775.4000 KHZ 1636.40 KHZ	
2506 SUP	TUR	IZMIR	027E10 38N24	FC CP TAN2	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	027E10 38N24	250 KM	1784.4000 KHZ 1636.40 KHZ	
2507 SUP	TUR	IZMIR	027E10 38N24	FC CP TAN2	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	027E10 38N24	250 KM	1781.4000 KHZ 1636.40 KHZ	
2508 SUP	TUR	ISTANBUL	028E56 41N04	FC CP TAN	0000-2400 DUPLEX	2K70J3EJN	X 37.0 DBW	ND	028E56 41N04	400 KM	1796.4000 KHZ 1636.40 KHZ	
2509 SUP	TUR	ISTANBUL	028E56 41N04	FC CP TAN	0000-2400 DUPLEX	2K70J3EJN	X 37.0 DBW	ND	028E56 41N04	400 KM	1787.4000 KHZ 1636.40 KHZ	
2510 ADD	TUR	SAMSUN	036E20 41N17	FC CP TAN6	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	036E20 41N17	250 KM	1623.0000 KHZ 1607.00 KHZ	
2511 ADD	TUR	SAMSUN	036E20 41N17	FC CP TAN6	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	036E20 41N17	250 KM	1616.0000 KHZ 1607.00 KHZ	
2512 ADD	TUR	MERSIN	034E36 36N49	FC CP TAM5	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	034E36 36N49	250 KM	1623.0000 KHZ 1607.00 KHZ	
2513 ADD	TUR	MERSIN	034E36 36N49	FC CP TAM5	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	034E36 36N49	250 KM	1621.0000 KHZ 1607.00 KHZ	
2514 ADD	TUR	IZMIR	027E10 38N24	FC CP TAN2	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	027E10 38N24	250 KM	1618.0000 KHZ 1607.00 KHZ	
2515 ADD	TUR	IZMIR	027E10 38N24	FC CP TAN2	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	027E10 38N24	250 KM	1616.0000 KHZ 1607.00 KHZ	
2516 ADD	TUR	ISKENDERUN	036E07 36N37	FC CP TAM4	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	036E07 36N37	250 KM	1619.0000 KHZ 1607.00 KHZ	
2517 ADD	TUR	ISKENDERUN	036E07 36N37	FC CP TAM4	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	036E07 36N37	250 KM	1617.0000 KHZ 1607.00 KHZ	
2518 ADD	TUR	ISTANBUL	028E56 41N04	FC CP TAH	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	028E56 41N04	400 KM	1622.0000 KHZ 1607.00 KHZ	
2519 ADD	TUR	ISTANBUL	028E56 41N04	FC CP TAH	0000-2400 DUPLEX	304HF1BCN	X 37.0 DBW	ND	028E56 41N04	400 KM	1620.0000 KHZ 1607.00 KHZ	
2581 ADD	TUR	TRABZON	039E43 41N00	FC CP TA02	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	039E43 41N00	250 KM	1610.0000 KHZ 1607.00 KHZ	
2582 ADD	TUR	TRABZON	039E43 41N00	FC CP TA02	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 DBW	ND	039E42 41N00	250 KM	1667.4000 KHZ 1636.40 KHZ	
2583 ADD	TUR	ZONGULDAV	031E48 41N27	FC CP TAN5	0000-2400 SIMPLEX	304HF1BCN	X 30.0 DBW	ND	031E48 41N27	250 KM	1624.0000 KHZ 1607.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
2584	TUR	ZONGULDAV	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	031E48 41N27	250 KM	1756.4000 KHZ	
ADD		031E48 41N27	TAN5	SIMPLEX						1636.40 KHZ	
2585	TUR	ANTALYA	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	030E42 36N53	250 KM	1615.0000 KHZ	
ADD		030E42 36N53	TAM6	SIMPLEX						1607.00 KHZ	
2586	TUR	ANTALYA	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	030E42 36N53	250 KM	1747.4000 KHZ	
ADD		030E42 36N53	TAM6	SIMPLEX						1636.40 KHZ	
2587	TUR	CANAKKALE	FC CP	0000-2400	304HF1BCN	X 30.0 DBW	ND	026E24 40N08	250 KM	1614.0000 KHZ	
ADD		026E24 40N08	TAM	SIMPLEX						1607.00 KHZ	
2588	TUR	CANAKKALE	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	026E24 40N08	250 KM	1702.4000 KHZ	
ADD		026E24 40N08	TAM	SIMPLEX						1636.40 KHZ	
2590	TUR	ISKENDERUN	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	036E07 36N37	250 KM	1747.4000 KHZ	
ADD		036E07 36N37	TAM4	SIMPLEX						1636.40 KHZ	
2591	TUR	TRABZON	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	039E43 41N00	250 KM	1684.4000 KHZ	
ADD		039E43 41N00	TA02	SIMPLEX						1636.40 KHZ	
2592	TUR	ISTANBUL	FC CP	0000-2400	2K70J3EJN	X 37.0 DBW	ND	028E56 41N04	400 KM	1771.4000 KHZ	
ADD		028E56 41N04	TAN	DUPLEX						1636.40 KHZ	
2593	TUR	ISKENDERUN	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	036E07 36N37	250 KM	1714.4000 KHZ	
ADD		036E07 36N37	TAM4	SIMPLEX						1636.40 KHZ	
2594	TUR	MERSIN	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	034E36 36N49	250 KM	1777.4000 KHZ	
ADD		034E36 36N49	TAM5	SIMPLEX						1636.40 KHZ	
2595	TUR	SAMSUN	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	036E20 41N17	250 KM	1732.4000 KHZ	
ADD		036E20 41N17	TAN6	SIMPLEX						1636.40 KHZ	
2596	TUR	IZMIR	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	027E10 38N24	250 KM	1735.4000 KHZ	
ADD		027E10 38N24	TAN2	SIMPLEX						1636.40 KHZ	
2597	TUR	ISTANBUL	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	028E56 41N04	400 KM	1687.4000 KHZ	
ADD		028E56 41N04	TAN	DUPLEX						1636.40 KHZ	
2598	TUR	IZMIR	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	027E10 38N24	250 KM	1699.4000 KHZ	
ADD		027E10 38N24	TAN2	SIMPLEX						1636.40 KHZ	
2599	TUR	MERSIN	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	034E36 36N49	250 KM	1690.4000 KHZ	
ADD		034E36 36N49	TAM5	SIMPLEX						1636.40 KHZ	
2600	TUR	SAMSUN	FC CP	0000-2400	2K70J3EJN	X 30.0 DBW	ND	036E20 41N17	250 KM	1693.4000 KHZ	
ADD		036E20 41N17	TAN6	SIMPLEX						1636.40 KHZ	
2826	YEM	HODEIDAH	FC CP	0000-2400	100HA1A	X 30.0 DBW	ND	042E54 14N55	1800 KM	461.0000 KHZ	
ADD		042E54 14N55		DUPLEX						435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
2827	YEM	ALAHMADI	FC CP	0000-2400	2K80J3E	X 24.0 DBW	ND	042E54 14N55 500 KM	1787.0000 KHZ	
ADD		042E54 14N55		DUPLEX					1636.40 KHZ	

ANNEX 3

Explanation of the symbols included in the list in Annex 4

IFRB No.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the Administration submitting the requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmitting antenna in degrees and minutes.
CL.	Class of station, AL = Aeronautical Radiobeacon.
NAT.	Nature of service.
IDENTIFIC.	Identification signal to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antenna, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antenna : ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area : the geographical coordinates of the center and value of the radius; In case of a service area defined by points : the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

ANNEXE 4 - ANNEX 4 - ANEXO 4

ANNEXE 4 - ANNEX 4 - ANEXO 4

RADIOPHARES AERONAUTIQUES * AERONAUTICAL RADIOBEACONS * RADIOFAROS AERONAUTICOS 1
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50929 ADD	ALG	ALGER	003E18 36N40	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	003E18 36N40	300 KM	526.00 KHZ	1499
50931 ADD	ALG	BEJAIA	005E02 36N43	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E02 36N43	300 KM	509.00 KHZ	1500
50933 ADD	ALG	ANNABA	007E45 36N54	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	007E45 36N54	300 KM	509.00 KHZ	1500
50937 ADD	ALG	GARA DJEBILET	007W11 26N53	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	007W11 26N53	300 KM	507.00 KHZ	1501
50938 ADD	ALG	TIMIMOUN	000E17 29N14	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000E17 29N14	300 KM	507.00 KHZ	1501
50939 ADD	ALG	ADRAR	000W14 27N46	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000W14 27N46	300 KM	507.00 KHZ	1501
50940 ADD	ALG	BATNA	006E09 35N32	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E09 35N32	300 KM	522.00 KHZ	1502
50941 ADD	ALG	EL OUED	006E47 33N30	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E47 33N30	300 KM	513.00 KHZ	1503
50943 ADD	ALG	BECHAR	002W14 31N38	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	002W14 31N38	300 KM	513.00 KHZ	1503
50944 ADD	ALG	BOUSAADA	004E12 35N20	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	004E12 35N20	300 KM	512.00 KHZ	1504
50946 ADD	ALG	EL BAYADH	001E01 33N41	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	001E01 33N41	300 KM	506.00 KHZ	1505
50948 ADD	ALG	SETIF	005E25 36N36	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E25 36N36	300 KM	506.00 KHZ	1505
50949 ADD	ALG	ORAN ES SENIA	000W35 35N39	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000W35 35N39	300 KM	506.00 KHZ	1505
50952 ADD	ALG	BORDJ OMAR DRISS	006E50 28N08	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E50 28N08	300 KM	506.00 KHZ	1505
50954 ADD	ALG	BISKRA	005E44 34N48	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E44 34N48	300 KM	511.00 KHZ	1506
50956 ADD	ALG	CONSTANTINE	006E47 36N11	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E47 36N11	300 KM	518.00 KHZ	1507
50958 ADD	ALG	CHENACHENE	004W13 26N03	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	004W13 26N03	300 KM	519.00 KHZ	1508
50959 ADD	ALG	TINDOUF	008W10 35N02	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	008W10 35N02	300 KM	523.00 KHZ	1509

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50964	ALG	OUARGLA	005E25 31N56	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E25 31N56	300 KM	523.00 KHZ	1509
ADD												
50966	ALG	DJANET	009E26 24N16	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	009E26 24N16	300 KM	523.00 KHZ	1509
ADD												
50968	ALG	EL GOLEA	002E52 30N35	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	002E52 30N35	300 KM	510.00 KHZ	1510
ADD												
50971	ALG	HASSI MESSAOUD	006E08 31N39	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E08 31N39	300 KM	510.00 KHZ	1510
ADD												
50973	ALG	IN GEZZAM	005E46 19N34	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E46 19N34	300 KM	510.00 KHZ	1510
ADD												
50979	ALG	JIJEL	005E52 36N48	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E52 36N48	300 KM	510.00 KHZ	1510
ADD												
51006	ALG	HASSI EL KHEBI	005W16 29N11	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005W16 29N11	300 KM	520.00 KHZ	1511
ADD												
51009	ALG	TLEMCEN	001W21 35N02	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	001W21 35N02	300 KM	525.00 KHZ	1512
ADD												
51010	ALG	TEBESSA	008E03 35N27	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	008E03 35N27	300 KM	525.00 KHZ	1512
ADD												
51011	ALG	IN SALAH	002E31 27N15	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	002E31 27N15	300 KM	525.00 KHZ	1512
ADD												
51018	ALG	IN AMENAS	009E37 28N03	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	009E37 28N03	300 KM	508.00 KHZ	1513
ADD												
51022	ALG	MASCARA	000E11 35N13	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000E11 35N13	300 KM	514.00 KHZ	1514
ADD												
51024	ALG	TAMANRASSET	005E25 22N48	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	005E25 22N48	300 KM	515.00 KHZ	1515
ADD												
51026	ALG	TIARET	001E28 35N21	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	001E28 35N21	300 KM	515.00 KHZ	1515
ADD												
51028	ALG	TOUGGOURT	006E05 33N03	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	006E05 33N03	300 KM	515.00 KHZ	1515
ADD												
51031	ALG	ORAN ES SENIA	000W38 35N39	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	000W38 35N39	300 KM	505.00 KHZ	1516
ADD												
50382	AZR	LAJES	027W06 38N46	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	027W06 38N46	180 KM	416.0000 KHZ	464
MOD	POR			LJS							416.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
50901 ADD	BDI	KIOFI 030E08 04S03	AL RC KF	0600-1800	100HA1A	X 14.0 DBW	ND	030E08 04S03 37 KM	415.00 KHZ	1377
51038 INCPL	BEN	KANDI AEROPORT 002E56 11N08	AL RC	-			ND	002E56 11N08 400 KM		1393
51039 INCPL	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU	0000-2400				002E38 09N20 400 KM	415.00 KHZ	1394
51040 INCPL	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU	0000-2400				002E38 09N20 400 KM	415.00 KHZ	1395
51041 INCPL	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU	-				002E38 09N20 400 KM	415.00 KHZ	1396
51042 INCPL	BEN	PARAKOU AEROPORT 002E38 09N20	AL RC PU	0000-2400				002E38 09N20 400 KM	415.00 KHZ	1397
51043 INCPL	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400				002E25 06N23 400 KM	415.00 KHZ	1398
51044 INCPL	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400				002E25 06N23 400 KM	415.00 KHZ	1399
51045 INCPL	BEN	NATITINGOU AEROPORT 001E35 09N47	AL RC	0000-2400			ND	001E35 09N47 400 KM	426.00 KHZ	1386
51046 INCPL	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400				002E25 06N23 400 KM	415.00 KHZ	1400
51047 INCPL	BEN	NATITINGOU AEROPORT 001E35 09N47	AL RC	0000-2400			ND	001E35 09N47 400 KM	424.00 KHZ	1387
51048 INCPL	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400				002E25 06N23 400 KM	415.00 KHZ	1401
51049 INCPL	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400				002E25 06N23 400 KM	415.00 KHZ	1402
51050 INCPL	BEN	SAVE AEROPORT 002E31 08N47	AL RC	0000-2400				002E31 08N47 400 KM	444.00 KHZ	1388
51051 INCPL	BEN	COTONOU AEROPORT 002E25 06N23	AL RC CN	0000-2400				002E25 06N23 400 KM	415.00 KHZ	1403

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51052 INCPL	BEN	SAVE AEROPORT	002E31 07N47	AL RC	0000-2400				002E31 07N47	400 KM	442.00 KHZ	1389
51053 INCPL	BEN	COTONOU AEROPORT	002E25 06N23	AL RC CN	0000-2400				002E25 06N23	400 KM	415.00 KHZ	1404
51054 INCPL	BEN	DJOUGOU AEROPORT	001E40 09N42	AL RC	0000-2400			ND	001E40 09N42	400 KM	434.00 KHZ	1390
51055 INCPL	BEN	DJOUGOU AEROPORT	001E40 09N42	AL RC	0000-2400			ND	001E40 09N42	400 KM	432.00 KHZ	1391
51056 INCPL	BEN	KANDI AEROPORT	002E56 11N08	AL RC	0000-2400				002E56 11N08	400 KM	420.00 KHZ	1392
50942 ADD	CME	BAMENDA	010E07 06N02	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	010E07 06N02	200 KM	519.5000 KHZ 415.00 KHZ	
50945 ADD	CME	BAMENDA	010E07 06N02	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E07 06N02	400 KM	520.0000 KHZ 415.00 KHZ	
50947 ADD	CME	BAGANTE	010E33 05N07	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E33 05N07	200 KM	505.0000 KHZ 415.00 KHZ	
50950 ADD	CME	BAFIA	011E16 04N46	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E16 04N46	200 KM	505.5000 KHZ 415.00 KHZ	
50951 ADD	CME	EDEA	010E08 03N47	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E08 03N47	200 KM	506.5000 KHZ 415.00 KHZ	
50953 ADD	CME	BANYO	011E50 06N44	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E50 06N44	200 KM	507.5000 KHZ 415.00 KHZ	
50955 ADD	CME	AKWAYA	009E34 06N24	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E34 06N24	200 KM	508.5000 KHZ 415.00 KHZ	
50957 ADD	CME	DSCHANG	010E04 05N27	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E04 05N27	200 KM	508.0000 KHZ 415.00 KHZ	
50960 ADD	CME	MUDEMBA	008E53 05N01	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	008E53 05N01	200 KM	509.0000 KHZ 415.00 KHZ	
50961 ADD	CME	NGUTI	009E25 05N20	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E25 05N20	200 KM	509.5000 KHZ 415.00 KHZ	
50962 ADD	CME	IDENAO	009E00 04N13	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E00 04N13	200 KM	510.0000 KHZ 415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50963	CME	TIKO		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E22 04N05	200 KM	510.5000 KHZ	
ADD			009E22 04N05								415.00 KHZ	
50965	CME	CAMPO		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E56 02N22	200 KM	511.0000 KHZ	
ADD			009E56 02N22								415.00 KHZ	
50967	CME	AMBAM		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E16 02N22	200 KM	511.5000 KHZ	
ADD			011E16 02N22								415.00 KHZ	
50969	CME	BAMUSSO		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	008E57 04N32	200 KM	512.0000 KHZ	
ADD			008E57 04N32								415.00 KHZ	
50970	CME	KRIBI		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E43 02N53	200 KM	512.5000 KHZ	
ADD			009E43 02N53								415.00 KHZ	
50972	CME	KRIBI		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 02N53	400 KM	513.0000 KHZ	
ADD			009E43 02N53								415.00 KHZ	
50974	CME	NGAOUNDERE		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E34 07N22	200 KM	514.0000 KHZ	
ADD			013E34 07N22								415.00 KHZ	
50975	CME	NGAOUNDERE		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E34 07N22	400 KM	514.5000 KHZ	
ADD			013E34 07N22								415.00 KHZ	
50976	CME	MAROUA		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	014E15 10N27	200 KM	515.5000 KHZ	
ADD			014E15 10N27								415.00 KHZ	
50977	CME	MAROUA		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	014E15 10N27	400 KM	516.0000 KHZ	
ADD			014E15 10N27								415.00 KHZ	
50978	CME	KOUTABA		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	010E45 05N39	200 KM	517.0000 KHZ	
ADD			010E45 05N39								415.00 KHZ	
50980	CME	KOUTABA		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E45 05N39	400 KM	517.5000 KHZ	
ADD			010E45 05N39								415.00 KHZ	
50981	CME	BAFOUSSAM		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	010E25 05N27	200 KM	518.5000 KHZ	
ADD			010E25 05N27								415.00 KHZ	
50982	CME	BAFOUSSAM		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E25 05N27	400 KM	519.0000 KHZ	
ADD			010E25 05N27								415.00 KHZ	
50983	CME	BAMENDA		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	010E07 06N02	400 KM	520.5000 KHZ	
ADD			010E07 06N02								415.00 KHZ	
50984	CME	BERTOUA		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E44 04N32	400 KM	521.0000 KHZ	
ADD			013E44 04N32								415.00 KHZ	
50985	CME	BERTOUA		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E44 04N32	200 KM	521.5000 KHZ	
ADD			013E44 04N32								415.00 KHZ	
50986	CME	BERTOUA		AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E44 04N32	400 KM	522.0000 KHZ	
ADD			013E44 04N32								415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50987 ADD	CME	GAROUA 013E25 09N20	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E25 09N20	200 KM	522.5000 KHZ 415.00 KHZ	
50988 ADD	CME	GAROUA 013E25 09N20	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E25 09N20	200 KM	523.0000 KHZ 415.00 KHZ	
50989 ADD	CME	GAROUA 013E25 09N20	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	013E25 09N20	400 KM	523.5000 KHZ 415.00 KHZ	
50990 ADD	CME	YAOUNDE 011E31 03N50	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	011E31 03N50	400 KM	524.0000 KHZ 415.00 KHZ	
50991 ADD	CME	YAOUNDE 011E31 03N50	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	011E31 03N50	200 KM	524.5000 KHZ 415.00 KHZ	
50992 ADD	CME	YAOUNDE 011E31 03N50	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	011E31 03N50	200 KM	525.0000 KHZ 415.00 KHZ	
50993 ADD	CME	YAOUNDE 011E31 03N50	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	011E31 03N50	400 KM	525.5000 KHZ 415.00 KHZ	
50994 ADD	CME	DOUALA 009E43 04N01	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E43 04N01	200 KM	526.0000 KHZ 415.00 KHZ	
50995 ADD	CME	DOUALA 009E43 04N01	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 04N01	400 KM	526.5000 KHZ 415.00 KHZ	
50996 ADD	CME	DOUALA 009E43 04N01	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	009E43 04N01	200 KM	415.0000 KHZ 415.00 KHZ	
50997 ADD	CME	DOUALA 009E43 04N01	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	009E43 04N01	400 KM	415.5000 KHZ 415.00 KHZ	
50998 ADD	CME	YAGOUA 015E14 10N22	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E14 10N22	200 KM	416.0000 KHZ 415.00 KHZ	
50999 ADD	CME	KOURCUI 014E07 11N05	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E07 11N05	200 KM	416.5000 KHZ 415.00 KHZ	
51000 ADD	CME	TIGNERE 012E36 07N22	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E36 07N22	200 KM	417.5000 KHZ 415.00 KHZ	
51001 ADD	CME	NGAOUNDAL 013E23 06N24	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	013E23 06N24	200 KM	418.0000 KHZ 415.00 KHZ	
51002 ADD	CME	TOUBORO 015E40 07N40	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E40 07N40	200 KM	418.5000 KHZ 415.00 KHZ	
51003 ADD	CME	TIBATI 012E37 06N27	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E37 06N27	200 KM	419.0000 KHZ 415.00 KHZ	
51004 ADD	CME	BETARE OYA 014E07 05N36	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E07 05N36	200 KM	419.5000 KHZ 415.00 KHZ	

RADIOPHARES AERONAUTIQUES * AERONAUTICAL RADIOBEACONS * RADIOFAROS AERONAUTICOS 7
LISTE DES BESOINS - PAR PAYS . * LIST OF REQUIREMENTS - BY CNTRY. * LISTA DE SOLICITUDES - POR PAIS . 03/02/85

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51005	CME	LOLO	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E55 04N17	200 KM	420.5000 KHZ	
ADD		014E55 04N17								415.00 KHZ	
51007	CME	MOULOUNDOU	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E13 02N02	200 KM	421.0000 KHZ	
ADD		015E13 02N02								415.00 KHZ	
51008	CME	DJOUM	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E38 02N40	200 KM	421.5000 KHZ	
ADD		012E38 02N40								415.00 KHZ	
51012	CME	EBOLOWA	AL RC	0000-2400	100HA1A	X 30.0 DBW	ND	011E11 02N51	400 KM	422.0000 KHZ	
ADD		011E11 02N51								415.00 KHZ	
51013	CME	MINTOM	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E17 02N40	200 KM	422.5000 KHZ	
ADD		015E17 02N40								415.00 KHZ	
51014	CME	YOKADOUMA	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E11 03N25	200 KM	423.0000 KHZ	
ADD		015E11 03N25								415.00 KHZ	
51015	CME	MADINERIN	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E55 08N25	200 KM	423.5000 KHZ	
ADD		014E55 08N25								415.00 KHZ	
51016	CME	BAIKWA	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E25 09N10	200 KM	424.0000 KHZ	
ADD		014E25 09N10								415.00 KHZ	
51017	CME	WAZA	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E32 11N21	200 KM	424.5000 KHZ	
ADD		014E32 11N21								415.00 KHZ	
51019	CME	NKONGSAMBA	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E57 04N57	200 KM	425.0000 KHZ	
ADD		009E57 04N57								415.00 KHZ	
51020	CME	NWA	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	011E05 06N27	200 KM	427.5000 KHZ	
ADD		011E05 06N27								415.00 KHZ	
51021	CME	NGOILA	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E00 02N37	200 KM	429.5000 KHZ	
ADD		014E00 02N37								415.00 KHZ	
51023	CME	MAKARI	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E27 12N33	200 KM	429.5000 KHZ	
ADD		014E27 12N33								415.00 KHZ	
51025	CME	KOUSSERI	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	015E02 12N05	200 KM	430.0000 KHZ	
ADD		015E02 12N05								415.00 KHZ	
51027	CME	BOURRAH	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	013E28 10N11	200 KM	430.5000 KHZ	
ADD		013E28 10N11								415.00 KHZ	
51029	CME	MEIGANGA	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E16 06N33	200 KM	432.0000 KHZ	
ADD		014E16 06N33								415.00 KHZ	
51030	CME	YOKO	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	012E20 05N31	200 KM	432.5000 KHZ	
ADD		012E20 05N31								415.00 KHZ	
51032	CME	NKAMBE	AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	010E40 06N12	200 KM	433.0000 KHZ	
ADD		010E40 06N12								415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
51033	CME	MAMFE		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009E20 05N43	200 KM	433.5000 KHZ	
ADD			009E20 05N43								415.00 KHZ	
51034	CME	BATOURI		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	014E22 04N28	200 KM	434.0000 KHZ	
ADD			014E22 04N28								415.00 KHZ	
51035	CME	ABONG MBANG		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	013E12 04N00	200 KM	434.5000 KHZ	
ADD			013E12 04N00								415.00 KHZ	
50771	CTI	ABIDJAN		AL RC	0000-2400	2K10A2A	Y 17.0 DBW	ND	003W56 05N14	50 KM	306.0000 KHZ	
ADD			003W56 05N14	TUH-AN							415.00 KHZ	
50772	CTI	ABIDJAN		AL RC	0000-2400	2K10A2A	Y 17.0 DBW	ND	003W56 05N14	50 KM	327.0000 KHZ	
ADD			003W56 05N14	TUH-AN							415.00 KHZ	
50773	CTI	BOUAKE		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	004W58 07N42	50 KM	258.0000 KHZ	
ADD			004W58 07N42	TUH-BKE							415.00 KHZ	
50774	CTI	BOUAKE		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	004W58 07N42	50 KM	283.0000 KHZ	
ADD			004W58 07N42	TUH-BKE							415.00 KHZ	
50775	CTI	YAMOUSSOUKRO		AL RC	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W20 06N55	50 KM	363.0000 KHZ	
ADD			005W20 06N55	TUH-YKO							415.00 KHZ	
50776	CTI	YAMOUSSOUKRO		AL RC	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W20 06N55	50 KM	269.0000 KHZ	
ADD			005W20 06N55	TUH-YKO							415.00 KHZ	
50777	CTI	SAN-PEDRO		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W39 04N44	50 KM	330.0000 KHZ	
ADD			006W39 04N44	TUH-SAP							415.00 KHZ	
50778	CTI	SAN-PEDRO		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W39 04N44	50 KM		
ADD			006W39 04N44	TUH-SAP							415.00 KHZ	
50779	CTI	DALOA		AL RC	0000-2400	2K10A2A	Y 17.0 DBW	ND	006W28 06N52	50 KM	316.0000 KHZ	
ADD			006W28 06N52	TUH-DA							415.00 KHZ	
50780	CTI	DALOA		AL RC	0000-2400	2K10A2A	Y 17.0 DBW	ND	006W28 06N52	50 KM		
ADD			006W28 06N52	TUH-DA							415.00 KHZ	
50781	CTI	MAN		AL RC	0000-2400	2K10A2A	Y 14.0 DBW	ND	007W32 07N23	50 KM	366.0000 KHZ	
ADD			007W32 07N23	TUH-MN							415.00 KHZ	
50782	CTI	MAN		AL RC	0000-2400	2K10A2A	Y 14.0 DBW	ND	007W32 07N23	50 KM		
ADD			007W32 07N23	TUH-MN							415.00 KHZ	
50783	CTI	ODIENNE		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	007W34 09N30	50 KM	265.0000 KHZ	
ADD			007W34 09N30	TUH-OD							415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50784 ADD	CTI	ODIENNE	007W34 09N30	AL RC TUH-OD	0000-2400	2K10A2A	Y 20.0 DBW	ND	007W34 09N30	50 KM	415.00 KHZ	
50785 ADD	CTI	KORHOGO	005W38 09N27	AL RC TUH-KH	0000-2400	2K10A2A	Y 20.0 DBW	ND	005W38 09N27	50 KM	415.00 KHZ	
50786 ADD	CTI	KORHOGO	005W38 09N27	AL RC TUH-KH	0000-2400	2K10A2A	Y 20.0 DBW	ND	005W38 09N27	50 KM	415.00 KHZ	
50787 ADD	CTI	ABENGOUROU	003W29 06N44	AL RC TUH-ABN	0000-2400	2K10A2A	Y 20.0 DBW	ND	003W29 06N44	50 KM	400.0000 KHZ 415.00 KHZ	
50788 ADD	CTI	ABENGOUROU	003W29 06N44	AL RC TUH-ABN	0000-2400	2K10A2A	Y 20.0 DBW	ND	003W29 06N44	50 KM	415.00 KHZ	
50789 ADD	CTI	BONDOUKOU	002W42 08N01	AL RC TUH-BDK	0000-2400	2K10A2A	Y 20.0 DBW	ND	002W42 08N01	50 KM	340.0000 KHZ 415.00 KHZ	
50790 ADD	CTI	BONDOUKOU	002W42 08N01	AL RC TUH-BDK	0000-2400	2K10A2A	Y 20.0 DBW	ND	002W42 08N01	50 KM	415.00 KHZ	
50791 ADD	CTI	SASSANDRA	006W05 04N57	AL RC TUH-SS	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W05 04N57	50 KM	279.0000 KHZ 415.00 KHZ	
50792 ADD	CTI	TABOU	007W42 04N25	AL RC TUH-TBU	0000-2400	2K10A2A	Y 14.0 DBW	ND	007W42 04N45	50 KM	311.0000 KHZ 415.00 KHZ	
50793 ADD	CTI	GR BEREBY	006W55 04N38	AL RC TUH-GB	0000-2400	2K10A2A	Y 14.0 DBW	ND	006W55 04N38	50 KM	415.00 KHZ	
50794 ADD	CTI	SEGUELA	006W42 07N58	AL RC TUH-SGA	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W42 07N58	50 KM	397.0000 KHZ 415.00 KHZ	
50795 ADD	CTI	BOUNDIALI	006W28 09N32	AL RC TUH-BOU	0000-2400	2K10A2A	Y 20.0 DBW	ND	006W28 09N32	50 KM	358.0000 KHZ 415.00 KHZ	
50796 ADD	CTI	M*BAHIAKRO	004W20 07N25	AL RC TUH-MBA	0000-2400	2K10A2A	Y 20.0 DBW	ND	004W20 07N25	50 KM	290.0000 KHZ 415.00 KHZ	
50797 ADD	CTI	BOUNA	005W02 09N16	AL RC TUH-BNA	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W02 09N16	50 KM	415.00 KHZ	
50805 ADD	CTI	GAGNOA	005W55 06N05	AL RC TUH-GGO	0000-2400	2K10A2A	Y 14.0 DBW	ND	005W58 06N05	50 KM	370.0000 KHZ 415.00 KHZ	
50440 MOD	D	MUESTER TELGTE	007E46 51N57	AL RC	0000-2400	2K00A2A	X 20.0 DBW	ND	007E46 51N57	47 KM	425.00 KHZ	1241

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50441 MOD	D	IGELSBACH 010E52 49N09	AL RC ZXY	0000-2400	2K00A2A	X 20.0 DBW	ND	010E52 49N09	28 KM	206.0000 KHZ 425.00 KHZ	1241
50445 MOD	D	WITTMUNDHAVEN 007E48 53N34	AL RC WM	0000-2400	2K00A2A	Y 20.0 DBW	ND	007E48 53N34	93 KM	255.0000 KHZ 428.00 KHZ	1245
50857 ADD	D	KOELN/BONN 007E04 50N56	AL RC LJ	0000-2400	2K00A2A	Y 20.0 DBW	ND	007E04 50N56	47 KM	365.0000 KHZ 415.00 KHZ	
50858 ADD	D	DORTMUND-WICKEDE 007E36 51N31	AL RC DOW	0000-2400	2K00A2A	Y 20.0 DBW	ND	007E36 51N31	47 KM	333.0000 KHZ 415.00 KHZ	
50859 ADD	D	HAMBURG 010E03 53N34	AL RC HMG	0000-2400	2K00A2A	Y 20.0 DBW	ND	010E03 53N34	28 KM	388.0000 KHZ 415.00 KHZ	
50860 ADD	D	WIESBADEN 008E20 50N03	AL RC WBD	0000-2400	2K00A2A	Y 20.0 DBW	ND	008E20 50N03	47 KM	399.0000 KHZ 415.00 KHZ	
50233 MOD	E	VIGO 008W45 42N16	AL RC VGO	0000-2400	2K10A2A	Y 24.8 DBW	ND	008W45 42N16	93 KM	258.0000 KHZ 415.50 KHZ	
50819 ADD	G	PLATFORM INDE J 002E38 53N22	AL RC UJ	0000-2400	850HA2A	X 03.0 DBW	ND	002E38 53N22	37 KM	579.5000 KHZ 415.00 KHZ	1354
50820 ADD	G	PLATFORM MESA 003W05 58N07	AL RC MS	0000-2400	850HA2A	X 03.0 DBW	ND	003W05 58N07	37 KM	553.5000 KHZ 415.00 KHZ	1354
50821 ADD	G	PLATFORM DP8 003W33 53N45	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	003W33 53N45	37 KM	597.5000 KHZ 415.00 KHZ	1354
50822 ADD	G	PLATFORM DP6 003W31 53N52	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	003W31 53N52	37 KM	597.5000 KHZ 415.00 KHZ	1354
50823 ADD	G	PLATFORM DP5 003W31 53N59	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	003W31 53N59	37 KM	597.5000 KHZ 415.00 KHZ	1354
50824 ADD	G	PLATFORM DP4 003W34 53N53	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	003W34 53N53	37 KM	597.5000 KHZ 415.00 KHZ	1354
50825 ADD	G	PLATFORM DP3 003W28 53N48	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	003W28 53N48	37 KM	597.5000 KHZ 415.00 KHZ	1354
50826 ADD	G	PLATFORM DP1 003W35 53N51	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	003W35 53N51	37 KM	597.5000 KHZ 415.00 KHZ	1354

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50827	G	PLAT PHILLIPS 48/29A	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	001E48 53N01	37 KM	579.5000 KHZ	1354
ADD		001E48 53N01	GU							415.00 KHZ	
50828	G	PLAT PHILLIPS 48/29C	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	001E46 53N06	37 KM	579.5000 KHZ	1354
ADD		001E46 53N06	GC							415.00 KHZ	
50829	G	PLATFORM SHELL DD	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	002E11 53N01	37 KM	579.5000 KHZ	1354
ADD		002E11 53N01	PC							415.00 KHZ	
50830	G	PLATFORM SHELL CD	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	002E10 53N06	37 KM	579.5000 KHZ	1354
ADD		002E10 53N06	UC							415.00 KHZ	
50831	G	PLATFORM SHELL BD	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	002E11 53N05	37 KM	579.5000 KHZ	1354
ADD		002E11 53N05	UF							415.00 KHZ	
50832	G	PLATFORM SHELL AD	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	002E08 53N05	37 KM	579.5000 KHZ	1354
ADD		002E08 53N05	PA							415.00 KHZ	
50833	G	KNIGHTON	AL RC	0000-2400	850HA2A	X 12.0 DBW	ND	003W14 52N31	93 KM	404.5000 KHZ	1354
ADD		003W14 52N31	KNI							415.00 KHZ	
50834	G	COTTESMORE	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	000W59 52N44	37 KM	414.5000 KHZ	1354
ADD		000W59 52N44	CM							415.00 KHZ	
50835	G	BOVINGDON	AL RC	0000-2400	850HA2A	X 07.0 DBW	ND	000W33 51N44	56 KM	213.5000 KHZ	1354
ADD		000W33 51N44	BNN							415.00 KHZ	
50836	G	FAIR OAKS	AL RC	0000-2400	850HA2A	X 03.0 DBW	ND	000W33 51N21	37 KM		1354
ADD		000W33 51N21								415.00 KHZ	
50922	GRC	LEROS	AL RC	0000-2400	850HA2A	X 21.0 DBW	ND	026E48 37N11	60 KM		
ADD		026E48 37N11								415.00 KHZ	
50923	GRC	PAROS	AL RC	0000-2400	850HA2A	X 21.0 DBW	ND	025E08 37N01	60 KM		
ADD		025E08 37N01								415.00 KHZ	
50924	GRC	ALONISSOS	AL RC	0000-2400	850HA2A	X 21.0 DBW	ND	023E55 39N15	60 KM		
ADD		023E55 39N15								415.00 KHZ	
50925	GRC	SKYROS	AL RC	0000-2400	850HA2A	X 21.0 DBW	ND	024E29 38N58	60 KM		
ADD		024E29 38N58								415.00 KHZ	
50926	GRC	ASTIPALEA	AL RC	0000-2400	850HA2A	X 21.0 DBW	ND	026E21 36N32	60 KM		
ADD		026E21 36N32								415.00 KHZ	
50927	GRC	KASTELORIZO	AL RC	0000-2400	850HA2A	X 19.0 DBW	ND	029E34 36N08	50 KM		
ADD		029E34 36N08								415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
50913	HNG	IHAROS	017E06 46N20	AL RC IRS	0000-2400	2K10A2AAN	Y 23.0 DBW	ND	017E06 46N20 100 KM	500.0000 KHZ 415.00 KHZ	
50914	HNG	SAJOHIDVEG	021E00 48N00	AL RC SAG	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	021E00 48N00 100 KM	390.0000 KHZ 415.00 KHZ	
50915	HNG	KELEBIA	019E37 46N12	AL RC KEA	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E37 46N12 100 KM	409.0000 KHZ 415.00 KHZ	
50916	HNG	DUNAKESZI	019E09 47N37	AL RC DUN	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E09 47N37 100 KM	322.0000 KHZ 415.00 KHZ	
50917	HNG	MONOR	019E25 47N20	AL RC MNR	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E25 47N20 100 KM	288.0000 KHZ 415.00 KHZ	
50918	HNG	TAPIOSAP	019E27 47N30	AL RC TPS	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	019E27 47N30 100 KM	306.0000 KHZ 415.00 KHZ	
50919	HNG	PUSZTASZABOLCS	018E36 47N09	AL RC PTB	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	018E36 47N09 100 KM	386.0000 KHZ 415.00 KHZ	
50920	HNG	SAGVAR	018E07 46N50	AL RC SVR	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	018E07 46N50 100 KM	348.0000 KHZ 415.00 KHZ	
50921	HNG	GYOR	017E44 47N40	AL RC GYR	0000-2400	2K10A2AAN	Y 20.0 DBW	ND	017E44 47N40 100 KM	354.0000 KHZ 415.00 KHZ	
50116	HOL	OILRIG	004E20 53N25	AL RC	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	004E20 53N25 50 KM	415.00 KHZ	1191
50117	HOL	EINDHOVEN	005E27 51N27	AL RC	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	005E27 51N27 30 KM	417.00 KHZ	1192
50118	HOL	OILRIG	004E20 53N25	AL RC	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	004E20 53N25 50 KM	422.00 KHZ	1193
50119	HOL	OILRIG	004E20 53N25	AL RC	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	004E20 53N25 50 KM	432.00 KHZ	1194
50120	HOL	THORN	005E50 51N11	AL RC THN	0000-2400	2K14A2AAN	Y 17.0 DBW	ND	005E50 51N11 50 KM	514.0000 KHZ 415.50 KHZ	
50763	HOL	BUDEL	005E30 51N15	AL RC BDL	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	005E30 51N15 30 KM	415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA	FREQ-IN-USE PREF-BAND	REMARK
50764 MOD	HOL	HOOGEVEEN 006E31 52N44	AL RC HGV	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	006E31 52N44 30 KM	415.00 KHZ	
50765 MOD	HOL	HILVERSUM 005E09 52N12	AL RC HVS	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	005E09 52N12 30 KM	415.00 KHZ	
50766 MOD	HOL	LELYSTAD 005E32 52N27	AL RC LLS	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	005E32 52N27 30 KM	415.00 KHZ	
50767 MOD	HOL	MIDDELBURG 003E44 51N31	AL RC MDB	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	003E44 51N31 30 KM	415.00 KHZ	
50768 MOD	HOL	HOEVEN 004E33 51N33	AL RC HVN	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	004E33 51N33 30 KM	415.00 KHZ	
50769 MOD	HOL	TEUGE 006E03 52N15	AL RC TGE	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	006E03 52N15 30 KM	415.00 KHZ	
50770 MOD	HOL	TEXEL 004E50 53N07	AL RC TXL	0000-2400	2K14A2AAN	Y 13.0 DBW	ND	004E50 53N07 30 KM	415.00 KHZ	
50902 ADD	KEN	NAIROBI 036E52 01S16	AL RC KE	0000-2400	2K04A2AAN	X 30.0 DBW	ND	036E52 01S16 360 KM	415.00 KHZ	
50903 ADD	KEN	NAIROBI 036E54 01S20	AL RC NI	0000-2400	2K04A2AAN	X 20.0 DBW	ND	036E54 01S20 100 KM	415.00 KHZ	
50904 ADD	KEN	MARSABIT 037E59 02N21	AL RC MR	0000-2400	2K04A2AAN	X 20.0 DBW	ND	037E59 02N21 100 KM	415.00 KHZ	
50905 ADD	KEN	MANDERA 045E03 01N50	AL RC	0000-2400	2K04A2AAN	X 30.0 DBW	ND	045E03 01N50 360 KM	415.00 KHZ	
50906 ADD	KEN	NAIROBI 036E52 01S22	AL RC NO	0000-2400	2K04A2AAN	X 20.0 DBW	ND	036E52 01S22 100 KM	415.00 KHZ	
50907 ADD	KEN	LODWAR 035E37 03N07	AL RC LW	0000-2400	2K04A2AAN	X 30.0 DBW	ND	035E37 03N07 360 KM	415.00 KHZ	
50908 ADD	KEN	MOMBASA 039E36 04S02	AL RC MO	0000-2400	2K04A2AAN	X 30.0 DBW	ND	039E36 04S02 360 KM	415.00 KHZ	
50909 ADD	KEN	NAROK 035E51 01S06	AL RC NR	0000-2400	2K04A2AAN	X 30.0 DBW	ND	035E51 01S06 360 KM	415.00 KHZ	
50910 ADD	LBY	MESURATA 015E13 32N22	AL RC MS	0000-2400	2K00A2A	Y 30.0 DBW	ND	015E13 32N22 37 KM	290.0000 KHZ 415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50911	LBY	TOBRUK		AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	023E59 32N06	138 KM	287.3000 KHZ	
ADD			023E59 32N06	TB							415.00 KHZ	
50912	LBY	ZUARA		AL RC	0000-2400	2K00A2A	Y 30.0 DBW	ND	012E07 32N56	138 KM	296.5000 KHZ	
ADD			012E07 32N56	ZU							415.00 KHZ	
50542	MDG	MANANARA		AL RC	0300-1500	100HA1AAN	X 25.0 DBW	ND	049E46 16S10	90 KM		
MOD			049E46 16S10	MN							415.50 KHZ	
50543	MDG	MANDRITSARA		AL RC	0300-1500	100HA1AAN	X 25.0 DBW	ND	048E50 15S50	90 KM		
MOD			048E50 15S50	MR							415.50 KHZ	
50545	MDG	ANTSALOVA		AL RC	0300-1500	100HA1AAN	X 25.0 DBW	ND	044E37 18S42	90 KM		
MOD			044E37 18S42	AL							415.50 KHZ	
50546	MDG	MANDABE		AL RC	0300-1500	100HA1AAN	X 25.0 DBW	ND	044E57 21S02	90 KM		
MOD			044E57 21S02	MB							415.50 KHZ	
50548	MDG	AMBATOMAINTY		AL RC	0300-1500	100HA1AAN	X 25.0 DBW	ND	045E40 17S42	90 KM		
MOD			045E40 17S42	AM							415.50 KHZ	
50385	MDR	PORTO SANTO		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	016W21 33N04	180 KM	416.0000 KHZ	467
MOD	POR		016W21 33N04	PTO							416.00 KHZ	
50002	MLT	LUCA		AL RC	0000-2400	1K00N0N	X 31.5 DBW	ND	014E32 35N49	300 KM	416.0000 KHZ	
MOD			014E32 35N49								415.50 KHZ	
50661	MLT	LUCA		AL RC	0000-2400	1K00N0N	X 31.5 DBW	ND	014E32 35N49	300 KM	428.0000 KHZ	
MOD			014E32 35N49								415.50 KHZ	
50838	MRC	TARFAYA		AL RC	0000-2400	100HA1A	X 17.0 DBW	ND	012W55 27N57	100 KM	420.0000 KHZ	
ADD			012W55 27N57	TRF							415.00 KHZ	
50839	MRC	ERRACHIDIA		AL RC	0000-2400	2K04A2A	X 23.0 DBW	ND	004W25 31N45	200 KM	424.0000 KHZ	
ADD			004W25 31N45	ERH							415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50840	MRC	GUELMIM	AL RC	0000-2400	2K04A2A	X 17.0 DBW	ND	005W40 33N52	100 KM	432.0000 KHZ	
ADD		005W40 33N52	GLM							415.00 KHZ	
50841	MRC	HOCEIMA	AL RC	0000-2400	100HA1A	X 17.0 DBW	ND	003W58 35N10	100 KM	510.0000 KHZ	
ADD		003W58 35N10	HCM							415.00 KHZ	
50842	MRC	BOUARFA	AL RC	0000-2400	2K04A2A	X 17.0 DBW	ND	001W45 32N30	100 KM	415.0000 KHZ	
ADD		001W45 32N30	BRF							415.00 KHZ	
50843	MRC	BENI MELLAL	AL RC	0000-2400	2K04A2A	X 23.0 DBW	ND	006W20 32N55	300 KM	511.0000 KHZ	
ADD		006W20 32N55	BNM							415.00 KHZ	
50844	MRC	OUARZAZATE	AL RC	0000-2400	2K04A2A	X 23.0 DBW	ND	007W00 30N50	150 KM	525.0000 KHZ	
ADD		007W00 30N50	WRZ							415.00 KHZ	
50845	MRC	SAFI	AL RC	0000-2400	100HA1A	X 17.0 DBW	ND	009W14 32N18	100 KM	415.0000 KHZ	
ADD		009W14 32N18	SAF							415.00 KHZ	
50846	MRC	MAHBES	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	009W05 27N15	300 KM	418.0000 KHZ	
ADD		009W05 27N15	MHB							415.00 KHZ	
50847	MRC	TAZA	AL RC	0000-2400	2K04A2A	X 23.0 DBW	ND	004W10 34N08	150 KM	433.0000 KHZ	
ADD		004W10 34N08	TZA							415.00 KHZ	
50848	MRC	NADOR	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	002W56 35N10	200 KM	417.0000 KHZ	
ADD		002W56 35N10	NDR							415.00 KHZ	
50849	MRC	AZILAL	AL RC	0000-2400	2K04A2A	X 17.0 DBW	ND	006W35 31N50	100 KM	421.0000 KHZ	
ADD		006W35 31N50	AZL							415.00 KHZ	
50850	MRC	EL JADIDA	AL RC	0000-2400	100HA1A	X 23.0 DBW	ND	008W40 33N07	150 KM	425.0000 KHZ	
ADD		008W40 33N07	JAD							415.00 KHZ	
50851	MRC	ESSAOUIRA	AL RC	0000-2400	100HA1A	X 17.0 DBW	ND	009W46 31N38	100 KM	416.0000 KHZ	
ADD		009W46 31N38	ESR							415.00 KHZ	
50852	MRC	HADUZA	AL RC	0000-2400	2K04A2A	X 23.0 DBW	ND	011W10 27N15	200 KM	420.0000 KHZ	
ADD		011W10 27N15	HOZ							415.00 KHZ	
50854	MRC	KHOURIBGA	AL RC	0000-2400	2K04A2A	X 17.0 DBW	ND	006W52 32N45	100 KM	424.0000 KHZ	
ADD		006W52 32N45	KBG							415.00 KHZ	
50855	MRC	GUELTAT ZEMMOUR	AL RC	0000-2400	2K04A2A	X 23.0 DBW	ND	012W25 25N10	300 KM	433.0000 KHZ	
ADD		012W25 25N10	GZE							415.00 KHZ	
50856	MRC	TATA	AL RC	0000-2400	2K04A2A	X 23.0 DBW	ND	007W50 29N30	300 KM	422.0000 KHZ	
ADD		007W50 29N30	TAT							415.00 KHZ	
51037	OMA	SALALAH	FC CR	0000-2400	304HF1BCN	X 33.0 DBW	ND	054E06 17N01	400 KM		
ADD		054E06 17N01								435.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50573	POL	CHRCYNNO		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	020E50 52N30	45 KM	419.5010 KHZ	
MOD			020E50 52N30	CHM							415.50 KHZ	
50576	POL	ELBLAG		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	019E25 54N08	95 KM	423.5010 KHZ	
MOD			019E25 54N08	EBG							415.50 KHZ	
50580	POL	KROSNO		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	021E44 49N41	45 KM	434.5010 KHZ	
MOD			021E44 49N41	KMO							415.50 KHZ	
50585	POL	POZNAN		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	017E02 52N56	75 KM	416.5010 KHZ	
MOD			017E02 52N56	PAN							415.50 KHZ	
50589	POL	RYBNIK		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	018E38 50N04	45 KM	426.5010 KHZ	
MOD			018E38 50N04	RGE							415.50 KHZ	
50590	POL	SLUPSK		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	017E05 54N28	95 KM	421.5010 KHZ	
MOD			017E05 54N28	SPK							415.50 KHZ	
50594	POL	WARSZAWA		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	021E06 52N13	75 KM	419.5010 KHZ	
SUP			021E06 52N13	WGC							415.50 KHZ	
50595	POL	WROCLAW		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	017E00 51N13	45 KM	419.5010 KHZ	
MOD			017E00 51N13	WMG							415.50 KHZ	
50596	POL	ZAMOSC		AL RC	0000-2400	1K00H2AAN	Y 20.0 DBW	ND	023E12 50N42	75 KM	524.5010 KHZ	
MOD			023E12 50N42	ZME							415.50 KHZ	
50383	POR	TANCOS		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	008W16 39N29	180 KM		465
MOD			008W16 39N29	TNC							415.00 KHZ	
50384	POR	TANCOS		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	008W21 39N28	180 KM	416.0000 KHZ	466
MOD			008W21 39N28								416.00 KHZ	
50837	POR	ALVERCA		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009W02 38N54	180 KM		1356
ADD			009W02 38N54	AVR							415.00 KHZ	
50853	POR	ALVERCA		AL RC	0000-2400	100HA1A	X 20.0 DBW	ND	009W02 38N54	300 KM		
ADD			009W02 38N54	AVR							415.00 KHZ	
50899	QAT	DOHA		AL RC	0000-2400	2K80A2A	Y 48.0 DBW	ND	051E34 25N16	800 KM	521.0000 KHZ	
ADD			051E34 25N16								415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50900	QAT	DOHA	AL RC	0000-2400	2K80A2A	Y 48.0 DBW	ND	051E34 25N16	800 KM	432.0000 KHZ	
ADD		051E34 25N16								415.00 KHZ	
50725	ROU	BACAU	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	026E55 46N29	93 KM		
MOD		026E55 46N29	BC							415.50 KHZ	
50730	ROU	BUCURESTI/BANEASA	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	026E04 44N30	46 KM	428.0000 KHZ	
MOD		026E04 44N30	B							415.50 KHZ	
50731	ROU	BUCURESTI/BANEASA	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	026E08 44N30	46 KM	300.0000 KHZ	
MOD		026E08 44N30	A							415.50 KHZ	
50732	ROU	BUCURESTI/BANEASA	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	026E09 44N31	46 KM	256.0000 KHZ	
MOD		026E09 44N31	BSE							415.50 KHZ	
50735	ROU	CLUJ-NAPOCA	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	023E40 46N47	46 KM	300.0000 KHZ	
MOD		023E40 46N47	I							415.50 KHZ	
50736	ROU	CLUJ-NAPOCA	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	023E41 46N47	225 KM	424.0000 KHZ	
MOD		023E41 46N47	CFA							415.50 KHZ	
50737	ROU	CLUJ-NAPOCA	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	023E43 46N46	46 KM		
MOD		023E43 46N46								415.50 KHZ	
50738	ROU	CLUJ-NAPOCA	AL RC	0000-2400	2K14A2A	Y 30.0 DBW	ND	023E48 46N47	148 KM		
MOD		023E48 46N47								415.50 KHZ	
50739	ROU	CONSTANTA	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	028E29 44N20	46 KM		
MOD		028E29 44N20								415.50 KHZ	
50741	ROU	CONSTANTA	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	028E31 44N25	46 KM		
MOD		028E31 44N25								415.50 KHZ	
50742	ROU	CONSTANTA	AL RC	0000-2400	2K14A2A	Y 30.0 DBW	ND	028E37 44N28	148 KM		
MOD		028E37 44N28								415.50 KHZ	
50744	ROU	CRAIOVA	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	023E55 44N19	93 KM		
MOD		023E55 44N19	E							415.50 KHZ	
50745	ROU	CRAIOVA	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	023E59 44N19	93 KM	310.0000 KHZ	
MOD		023E59 44N19	EA							415.50 KHZ	
50750	ROU	SATU MARE	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	022E53 47N41	46 KM		
MOD		022E53 47N41								415.50 KHZ	
50752	ROU	SUCEAVA	AL RC	0000-2400	2K14A2A	Y 26.0 DBW	ND	026E24 47N45	93 KM		
MOD		026E24 47N45								415.50 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50755 MOD	ROU	TIMISOARA 021E24 45N48	AL RC S	0000-2400	2K14A2A	Y 23.0 DBW	ND	021E24 45N48	46 KM	415.50 KHZ	
50756 MOD	ROU	TIMISOARA 021E18 45N49	AL RC	0000-2400	2K14A2A	Y 23.0 DBW	ND	021E18 45N49	46 KM	415.50 KHZ	
50758 MOD	ROU	TULCEA 028E44 44N59	AL RC TLC	0000-2400	2K14A2A	Y 30.0 DBW	ND	028E44 44N59	185 KM	286.0000 KHZ 415.50 KHZ	
50759 MOD	ROU	TULCEA 028E43 43N04	AL RC C	0000-2400	2K14A2A	Y 23.0 DBW	ND	028E43 43N04	46 KM	415.50 KHZ	
51036 ADD	ROU	ARAD 021E12 46N11	AL RC ARD	0000-2400	2K14A2A	Y 30.0 DBW	ND	021E12 46N11	185 KM	256.0000 KHZ 415.00 KHZ	
50208 MOD	TCH	CHOCEN 016E08 50N00	AL RC PK	0000-2400	2K10A2A	Y 26.0 DBW	ND	016E08 50N00	150 KM	432.0000 KHZ 415.50 KHZ	1190
50216 MOD	TCH	KOSICE 021E13 48N36	AL RC KE	0000-2400	2K10A2A	Y 20.0 DBW	ND	021E13 48N36	90 KM	425.0000 KHZ 415.50 KHZ	1190
50861 ADD	TCH	BRATISLAVA 017E18 48N13	AL RC OKR	0000-2400	2K10A2A	Y 20.0 DBW	ND	017E18 48N13	150 KM	391.0000 KHZ 415.00 KHZ	
50862 ADD	TCH	BRATISLAVA/IVANKA 017E18 48N07	AL RC OB	0000-2400	2K10A2A	Y 20.0 DBW	ND	017E18 48N07	45 KM	330.0000 KHZ 415.00 KHZ	
50863 ADD	TCH	BRATISLAVA-IVANKA 017E10 48N08	AL RC N	0000-2400	2K10A2A	Y 14.0 DBW	ND	017E10 48N08	45 KM	372.0000 KHZ 415.00 KHZ	
50864 ADD	TCH	BRNO 016E46 49N09	AL RC BNO	0000-2400	2K10A2A	Y 18.0 DBW	ND	016E46 49N09	90 KM	368.0000 KHZ 415.00 KHZ	
50865 ADD	TCH	BRNO-MEDLANKY 016E46 49N09	AL RC BM	0000-2400	2K10A2A	Y 26.0 DBW	ND	016E46 49N09	150 KM	458.0000 KHZ 415.00 KHZ	
50866 ADD	TCH	CHEB 012E24 50N04	AL RC OKG	0000-2400	2K10A2A	Y 19.0 DBW	ND	012E24 50N04	150 KM	317.0000 KHZ 415.00 KHZ	
50867 ADD	TCH	DUBOVE 018E48 48N52	AL RC DBV	0000-2400	2K10A2A	Y 20.0 DBW	ND	018E48 48N52	90 KM	310.0000 KHZ 415.00 KHZ	
50868 ADD	TCH	HOLESOV 017E35 49N19	AL RC HO	0000-2400	2K10A2A	Y 18.0 DBW	ND	017E35 49N19	45 KM	473.0000 KHZ 415.00 KHZ	
50869 ADD	TCH	KARLOVY VARY 013E01 50N10	AL RC KVY	0000-2400	2K10A2A	Y 18.0 DBW	ND	013E01 50N10	45 KM	365.0000 KHZ 415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50870	TCH	KARLOVY VARY	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	012E57 50N12	45 KM	669.0000 KHZ	
ADD		012E57 50N12	L							415.00 KHZ	
50871	TCH	KOSICE	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E14 48N38	45 KM	206.0000 KHZ	
ADD		021E14 48N38	K							415.00 KHZ	
50872	TCH	KOSTOLANY	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	017E43 48N31	45 KM	669.0000 KHZ	
ADD		017E43 48N31	KST							415.00 KHZ	
50873	TCH	KUNOVICE	AL RC	0000-2400	2K10A2A	Y 14.0 DBW	ND	017E27 49N03	45 KM	434.0000 KHZ	
ADD		017E27 49N03	KNE							415.00 KHZ	
50874	TCH	LUCENEC	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	019E49 45N18	45 KM	466.0000 KHZ	
ADD		019E49 45N18	LCE							415.00 KHZ	
50875	TCH	MARIANSKE LAZNE	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	012E43 49N56	45 KM	407.0000 KHZ	
ADD		012E43 49N56	MRL							415.00 KHZ	
50876	TCH	NITRA	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	018E03 48N18	90 KM	398.0000 KHZ	
ADD		018E03 48N18	NIT							415.00 KHZ	
50877	TCH	OSTRAVA	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	018E12 49N49	150 KM	363.0000 KHZ	
ADD		018E12 49N49	OTA							415.00 KHZ	
50878	TCH	PIESTANY	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	017E49 48N36	45 KM	297.0000 KHZ	
ADD		017E49 48N36	C							415.00 KHZ	
50879	TCH	PIESTANY	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	017E49 48N34	90 KM	615.0000 KHZ	
ADD		017E49 48N34	CN							415.00 KHZ	
50880	TCH	PLZEN	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	013E22 49N55	90 KM	436.0000 KHZ	
ADD		013E22 49N55	VC							415.00 KHZ	
50881	TCH	POLNA	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	015E45 49N27	150 KM	377.0000 KHZ	
ADD		015E45 49N27	POL							415.00 KHZ	
50882	TCH	POPRAD	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	020E21 49N04	150 KM	317.0000 KHZ	
ADD		020E21 49N04	PPD							415.00 KHZ	
50883	TCH	POPRAD TATRY/WEST	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	020E16 49N04	45 KM	290.0000 KHZ	
ADD		020E16 49N04	L							415.00 KHZ	
50884	TCH	PRAHA/NORTH	AL RC	0000-2400	2K10A2A	Y 16.0 DBW	ND	014E22 50N09	45 KM	356.0000 KHZ	
ADD		014E22 50N09	PR							415.00 KHZ	
50885	TCH	PRAHA/NORTH	AL RC	0000-2400	2K10A2A	Y 16.0 DBW	ND	014E18 50N07	45 KM	372.0000 KHZ	
ADD		014E18 50N07	L							415.00 KHZ	
50886	TCH	PRAHA/NORTH	AL RC	0000-2400	2K10A2A	Y 16.0 DBW	ND	014E17 50N06	45 KM	407.0000 KHZ	
ADD		014E17 50N06	N							415.00 KHZ	
50887	TCH	PRAHA/RUZYNE	AL RC	0000-2400	2K10A2A	Y 23.0 DBW	ND	014E36 50N09	150 KM	300.0000 KHZ	
ADD		014E36 50N09	KD							415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50888	TCH	PRAHA/RUZYNE	AL RC	0000-2400	2K10A2A	Y 16.0 DBW	ND	014E22 50N03	45 KM	307.0000 KHZ	
ADD		014E22 50N03	PG							415.00 KHZ	
50889	TCH	RAKOVNIK	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	013E42 50N06	90 KM	386.0000 KHZ	
ADD		013E42 50N06	RAK							415.00 KHZ	
50890	TCH	ROUDNICE	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E13 50N27	90 KM	394.0000 KHZ	
ADD		014E13 50N27	RCE							415.00 KHZ	
50891	TCH	SLIAC	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	019E08 48N37	45 KM	295.0000 KHZ	
ADD		019E08 48N37	F							415.00 KHZ	
50892	TCH	SLIAC	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	019E08 48N30	90 KM	412.0000 KHZ	
ADD		019E08 48N30	FS							415.00 KHZ	
50893	TCH	STUROVO	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	018E41 47N50	150 KM	378.0000 KHZ	
ADD		018E41 47N50	OKI							415.00 KHZ	
50894	TCH	TREBOVA/MORAVSKA	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	016E41 49N48	150 KM	492.0000 KHZ	
ADD		016E41 49N48	TBV							415.00 KHZ	
50895	TCH	VLASIM	AL RC	0000-2400	2K10A2A	Y 18.0 DBW	ND	015E04 49N42	90 KM	382.0000 KHZ	
ADD		015E04 49N42	VLM							415.00 KHZ	
50896	TCH	VODOCHODY	AL RC	0000-2400	2K10A2A	Y 23.0 DBW	ND	014E29 50N12	150 KM	333.0000 KHZ	
ADD		014E29 50N12	VO							415.00 KHZ	
50897	TCH	VOZICE	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E53 49N32	150 KM	322.0000 KHZ	
ADD		014E53 49N32	VOZ							415.00 KHZ	
50898	TCH	ZILINA	AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	018E31 49N12	45 KM	404.0000 KHZ	
ADD		018E31 49N12	ZLA							415.00 KHZ	
50928	TGO	NIAMTOUGOU	AL RC	0000-2400	2K04A2AAN	X 15.0 DBW	ND	001E03 09N42	90 KM	420.0000 KHZ	
ADD		001E03 09N42								415.00 KHZ	
50930	TGO	SANSANNE MANGO	AL RC	0020-2400	2K04A2AAN	X 15.0 DBW	ND	029E00 10N22	90 KM	430.0000 KHZ	
ADD		029E00 10N22	MG							415.00 KHZ	
50932	TGO	SANSANNE MANGO	AL RC	0020-2400	2K04A2AAN	X 15.0 DBW	ND	029E00 10N22	90 KM	510.0000 KHZ	
ADD		029E00 10N22	MG							415.00 KHZ	
50934	TGO	NIAMTOUGO	AL RC	0000-2400	2K04A2AAN	X 15.0 DBW	ND	001E03 09N42	KM	518.0000 KHZ	
ADD		001E03 09N42								415.00 KHZ	
50935	TGO	NIAMTOUGOU	AL RC	0000-2400	2K04A2AAN	X 15.0 DBW	ND	001E03 09N42	KM		
ADD		001E03 09N42								415.00 KHZ	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50936	TGO	SANSANNE MANGO	AL RC	0020-2400	2K04A2AAN	X 15.0 DBW	ND	029E00 10N22	90 KM		
ADD		029E00 10N22	MG							415.00 KHZ	
50672	TUR	ERHAC	AL RC	0000-2400	2K10A2AAN	Y 26.0 DBW	ND	038E08 38N30	140 KM	421.0000 KHZ	1355
MOD		038E08 38N30	ERH							415.50 KHZ	
50806	TUR	URFA	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	038E45 37N08	75 KM	415.0000 KHZ	1353
ADD		038E45 37N08	URF							415.00 KHZ	
50807	TUR	KARS	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	043E06 40N37	75 KM	418.0000 KHZ	1353
ADD		043E06 40N37	KAR							415.00 KHZ	
50808	TUR	CANAKKALE	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	026E25 40N10	50 KM	422.0000 KHZ	1353
ADD		026E25 40N10	CNK							415.00 KHZ	
50809	TUR	ERZINCAN	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	039E31 39N43	75 KM	430.0000 KHZ	1353
ADD		039E31 39N43	ERN							415.00 KHZ	
50810	TUR	GAZIANTEP	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	037E28 36N57	75 KM	432.0000 KHZ	1353
ADD		037E28 36N57	GAZ							415.00 KHZ	
50811	TUR	DENIZLI/CARDAK	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	029E41 37N52	75 KM	433.0000 KHZ	1353
ADD		029E41 37N52	CAD							415.00 KHZ	
50812	TUR	ISKENDERUN	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	036E05 36N35	75 KM	435.0000 KHZ	1353
ADD		036E05 36N35	ISK							415.00 KHZ	
50813	TUR	ESKISEHIR	AL RC	0000-2400	2K10A2AAN	X 26.0 DBW	ND	030E45 39N47	140 KM	420.0000 KHZ	1355
ADD		030E45 39N47	ESK							415.00 KHZ	
50814	TUR	ANKARA/CUBUK	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	028E47 36N43	140 KM	425.0000 KHZ	1355
ADD		028E47 36N43	BUK							415.00 KHZ	
50815	TUR	BIGA	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	027E22 40N17	140 KM	428.0000 KHZ	1355
ADD		027E22 40N17	BIG							415.00 KHZ	
50816	TUR	BEYKOZ	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW		029E10 41N10	140 KM	432.0000 KHZ	1355
ADD		029E10 41N10	BKZ							415.00 KHZ	
50817	TUR	ERZURUM/MUDURGE	AL RC	0000-2400	2K10A2AAN	X 20.0 DBW	ND	041E20 39N58	125 KM	434.0000 KHZ	1355
ADD		041E20 39N58	MDR							415.00 KHZ	
50818	TUR	ETIMESGUT I	AL RC	0000-2400	2K10A2AAN	X 26.0 DBW	ND	032E42 39N57	140 KM	512.0000 KHZ	1355
ADD		032E42 39N57	ETM							415.00 KHZ	
50296	YUG	KARLOVCI	AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	019E57 45N12	50 KM	420.0000 KHZ	1351

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAMWIDTH	SERVICE AREA		FREQ-IN-USE PREF-BAND	REMARK
50298	YUG	NIKSIC		AL RC	0000-2400	2K10A2A	Y 24.7 DBW	ND	018E55 42N46	100 KM	423.0000 KHZ	325
SUP			018E55 42N46	NIK							423.00 KHZ	
50299	YUG	PRILEP		AL RC	0000-2400	2K10A2A	Y 23.0 DBW	ND	021E27 41N20	100 KM	426.0000 KHZ	325
SUP			021E27 41N20	PEP							426.00 KHZ	
50300	YUG	RIJEKA		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E39 45N08	25 KM	426.0000 KHZ	325
SUP			014E39 45N08	RI							426.00 KHZ	
50312	YUG	KAVRAN		AL RC	0000-2400	2K10A2A	Y 20.0 DBW	ND	014E01 44N54	50 KM	516.0000 KHZ	325
SUP			014E01 44N54	KAV							516.00 KHZ	
50313	YUG	TITOGRAD		AL RC	0000-2400	2K10A2A	Y 21.7 DBW	ND	019E08 42N33	50 KM	519.0000 KHZ	325
SUP			019E08 42N33	DAN							519.00 KHZ	
50318	YUG	MOJKOVAC		AL RC	0000-2400	2K10A2A	Y 24.7 DBW	ND	019E35 42N57	100 KM	526.0000 KHZ	325
SUP			019E35 42N57	MOJ							526.00 KHZ	
50319	YUG	RIJEKA		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E27 45N20	25 KM	526.0000 KHZ	325
SUP			014E27 45N20	KO							526.00 KHZ	
50798	YUG	PRISTINA		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E02 42N36	25 KM	420.0000 KHZ	1351
ADD			021E02 42N36	BA							415.00 KHZ	
50799	YUG	PULA		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	013E52 44N54	25 KM	420.0000 KHZ	1351
ADD			013E52 44N54	GS							415.00 KHZ	
50800	YUG	VRSAC		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E35 45N15	25 KM	426.0000 KHZ	
ADD			021E35 45N15	VAC							415.00 KHZ	
50801	YUG	CRES		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	014E25 44N54	100 KM	426.0000 KHZ	
ADD			014E25 44N54	CRE							415.00 KHZ	
50802	YUG	ZITORADJE		AL RC	0000-2400	2K10A2A	Y 24.7 DBW	ND	021E44 43N11	50 KM	423.0000 KHZ	
ADD			021E44 43N11	ZO							415.00 KHZ	
50803	YUG	PRISTINA		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	021E02 42N36	25 KM	519.0000 KHZ	
ADD			021E02 42N36	VS							415.00 KHZ	
50804	YUG	SALI		AL RC	0000-2400	2K10A2A	Y 19.0 DBW	ND	015E10 43N56	60 KM	516.0000 KHZ	
ADD			015E10 43N56	SAL							415.00 KHZ	

ANNEX 5

Remarks

Supplied by the administrations in relation to their requirements

49 MOD **Single frequency for all following Italian coast stations for digital selective calling (DSC) in the band 0.5 MHz.**

ANCONA/IPA	**13E28**	**43N36**
AUGUSTA/IQA	**15E13**	**37N13**
BARI/IPB	**17E25**	**40N26**
CAGLIARI/IDC	**09E07**	**39N15**
GENOVA/ICB	**08E56**	**44N25**
MAZARA DEL VALLO/IQQ	**12E34**	**37N38**
NAPOLI/IQH	**14E14**	**40N50**
ROMA/IAR	**12E31**	**41N48**
TRIESTE/IQX	**13E46**	**45N40.**

ADD

1348 b) Designation of emission: 304HF1B and 100HA1A

1350 b) Designation of emission: 2K70J3E and 2K99R3E

1351 According to ICAO assignments, the same frequency is to be assigned to all aeronautical radiobeacons having Remark No. 1351.

1352 Operating on request (for calibration).

1353 Under planning.

1354 Complies with RR2855, 2856, 2857.

1355 Already in use.

1356 a) The equipment to be used operates between 200 and 500 kHz.

b) The frequency to be used may still be used in 2K10A2A mode will type PY power.

1357 Frequency 1834 kHz will have to be replaced.

1358 a) A frequency on the 435 - 526 kHz is required for MBDP observation

b) During a transition period it can be used the same frequency as per IFRB Serial No. 583 (if a separate frequency is not immediately available.

1359 A frequency is required in the 435 - 526.5 kHz band for MBDP operation.

1360 A frequency in the 1 606.5 - 1 626 kHz is required.

1361 a) A frequency in the 1 606.5 - 1 625 kHz is required for NBDP operation.

b) The frequency 1 620.0 kHz, already assigned, can be retained.

1362 A frequency in the 1 606.5 - 1 625 kHz is required for DSC.

1363 A frequency in the 435 - 526.5 kHz is required for DSC.

1364 a) A frequency in the 435 - 526.5 kHz is required for NBDP operation.

b) During a transition period it can be used the same frequency as per IFRB Serial No. 603 (if a separate frequency is not immediately available).

1365 A frequency in the 1 606.5 - 1 625 kHz is required for NBDP operation.

1366 NBDP

1367 DSC

1368 To replace 429 kHz.

1369 To replace 1 849 kHz.

1370 To replace 433 kHz.

1371 Assigned frequency 474 kHz used since 1965, will be retained.

1373 a) Designation of emission 100HA2A and 2K102AAN

b) In service since 1951

1374 a) Designation of emission: 100HA1A and 2K10A2AAN

b) In service since 1953

1375 In service since 1951

1376 In service since 1953

1441)
)
1442)
)
1448)
)
1449)
)
1452) Designation of emission: 100HA1A and 2K10A2AAN
)
1453)
)
1454)
)
1455)
)
1460)
)
1461)

1468)
)
1469) Designation of emission: 100HA1A and 2K10A2AAN
)
1470)

1517 Designation of emission: 2K80J3E and 340HF1B

1518 Designation of emission: 100HA1A and 340HF1B

1519 Calibration station on request.

RÉGION 1

UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
CARR POUR LE SERVICE MOBILE MARITIME ET LE SERVICE DE RADIONAVIGATION AÉRONAUTIQUE DANS CERTAINES PARTIES DE LA BANDE DES ONDES HECTOMÉTRIQUES DANS LA RÉGION 1
GENÈVE, FÉVRIER/MARS 1985

Corrigendum 1 à l'Addendum 1 au Document 14-F/E/S
4 mars 1985

COMMISSION 5
COMMITTEE 5
COMISIÓN 5

Remplacer la page 15 de l'annexe 2 à l'Addendum 1 au Document 14 par la page ci-jointe.

Please, replace page 15 of Annex 2 in the Addendum 1 to Document 14 by the attached page.

Sustitúyase la página 15 del anexo 2 del Addendum 1 al documento 14 por la página adjunta.

Pour des raisons d'économie, ce document n'a été tiré qu'en un nombre restreint d'exemplaires. Les participants sont donc priés de bien vouloir apporter à la réunion leurs documents avec eux, car il n'y aura pas d'exemplaires supplémentaires disponibles.

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
				Cité du Vatican (Etat de la)							
CVA				**Vatican City State**							
				Ciudad del Vaticano (Estado de la)							
2292 ADD	CVA	CITE DU VATICAN 012E27 41N55	FC OT CVA2	0000-2400 SIMPLEX	2K80J3E	X 40.0 dBW	ND	012E27 41N55	600 km	1611.0000 kHz	
2293 ADD	CVA	CITE DU VATICAN 012E27 41N55	FC OT CVA1	0000-2400 SIMPLEX	304HF1B	X 36.0 dBW	ND	012E27 41N55	600 km	526.0000 kHz	
				France							
F				**Francia**							
1819 MOD	F	BREST 004W19 48N26	FC CO FUE	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	001W45 43N23 010W00 44N10 010W00 50N00 005W00 50N00 000W01 50N45 000W01 49N25		444.0000 kHz 500 kHz	1291
1821 MOD	F	CHERBOURG 001W37 49N35	FC CO FUC	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	004W45 48N20 004W45 50N00 001E10 51N10 001E55 50N55 000E01 49N25		458.0000 kHz	1291
				Pays-Bas (Royaume des)							
HOL				**Netherlands (Kingdom of the)**							
				Países Bajos (Reino de los)							
449 MOD	HOL	AMSTERDAM 004E51 52N22	FC CP PBA3	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004E51 52N22	180 km	1699.4000 kHz	
432 MOD	HOL	DEN HELDER 004E45 52N55	FC CP	0000-2400 DUPLEX	280HF1BCN	X 30.0 dBW	ND	004E45 52N55	500 km		82
437 MOD	HOL	DEN HELDER 004E45 52N55	FC CP	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	004E45 52N55	500 km		

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Addendum 1 to
Document 14-E
19 February 1985
Original: English
French
Spanish

PLENARY MEETING

Note by the Secretary-General

REPORT BY THE IFRB
TO THE REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

At the request of the International Frequency Registration Board, I transmit the attached Addendum to the IFRB Report for the information of the Conference.

R.E. BUTLER
Secretary-General

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

REPORT BY THE IFRB

This Addendum contains the information received by the Board, in response to IFRB Circular-letter No. 554 of 8 September 1983, between the 15 October 1984 (date of establishment of Document 14) and 11 February 1985. The presentation of the Annexes is the same as that used in Document 14.

The requirements are presented according to the following categories (with symbols used for identification appearing below the IFRB Serial Number):

MOD: Modification to a requirement published in Document 14

SUP: Suppression of a requirement published in Document 14

ADD: Requirement received or completed after the 15 October 1984

INCPL: Requirement for which the Board received incomplete information

ICAO: Information requested by the Board and received from the ICAO for those countries which did not submit requirements for aeronautical radiobeacons.

Annexes: 5

ANNEX 1

Explanation of the symbols included in the list in Annex 2

IFRB NO.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the Administration submitting the requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmitting antenna in degrees and minutes.
CL.	Class of station, FC = Coast Station.
NAT.	Nature of service.
CALL-SIGN	Call sign to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
OP-MOD	Mode of operation: simplex or duplex.
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antenna, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antenna : ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area : the geographical coordinates of the center and value of the radius; In case of a service area defined by points : the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

AGL

Angola (République populaire d')
Angola (People's Republic of)
Angola (República Popular de)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2384 ADD	AGL	CABINDA	012E11 05S34	FC CP D3D3	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	012E11 05S34	500 km	500 kHz	
2385 ADD	AGL	CABINDA	012E11 05S34	FC CP D3D3	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	012E11 05S34	500 km	2000 kHz	
2382 ADD	AGL	LOBITO	013E33 12S22	FC CP D3F	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E33 12S22	500 km	500 kHz	
2383 ADD	AGL	LOBITO	013E33 12S22	FC CP D3F	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E33 12S22	500 km	2000 kHz	
2374 ADD	AGL	LUANDA	013E14 08S47	FC CP D3E	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E14 08S47	500 km	440.0000 kHz	
2375 ADD	AGL	LUANDA	013E14 08S47	FC CP D3E	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E14 08S47	500 km	449.5000 kHz	
2376 ADD	AGL	LUANDA	013E14 08S47	FC CP D3E	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E14 08S47	500 km	517.0000 kHz	
2377 ADD	AGL	LUANDA	013E14 08S47	FC CP D3E	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E14 08S47	500 km	526.0000 kHz	
2378 ADD	AGL	LUANDA	013E14 08S47	FC CP D3E	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E14 08S47	500 km	1615.0000 kHz	
2379 ADD	AGL	LUANDA	013E14 08S47	FC CP D3E	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	013E14 08S47	500 km	1624.0000 kHz	
2380 ADD	AGL	NAMIBE	012E09 15S11	FC CP D3G	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	012E09 15S11	500 km	500 kHz	
2381 ADD	AGL	NAMIBE	012E09 15S11	FC CP D3G	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	012E09 15S11	500 km	2000 kHz	
2386 ADD	AGL	SOYO	012E12 06S07	FC CP D3D	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	012E12 06S07	500 km	500 kHz	
2387 ADD	AGL	SOYO	012E12 06S07	FC CP D3D	0000-2400 DUPLEX	134HJ2B	X 36.9 dBW	ND	012E12 06S07	500 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

ALG

Algérie (République algérienne démocratique et populaire)
Algeria (People's Democratic Republic of)
Argelia (República Argelina Democrática y Popular)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2083 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	003E18 36N40 850 km	1638.0000 kHz	
2085 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	003E18 36N40 850 km	1674.0000 kHz	
2086 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	003E18 36N40 850 km	1707.0000 kHz	
2087 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	003E18 36N40 800 km	1755.0000 kHz	
2102 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 SIMPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 1000 km	459.0000 kHz	
2103 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	003E18 36N40 1000 km	448.0000 kHz	
2104 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	003E18 36N40 1000 km	445.0000 kHz	
2105 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 SIMPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 1000 km	433.0000 kHz	
2106 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	003E18 36N40 1000 km	440.0000 kHz	
2107 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	003E18 36N40 1000 km	420.0000 kHz	
2108 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 SIMPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 1000 km	417.0000 kHz	
2109 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	003E18 36N40 1000 km	436.0000 kHz	
2110 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 950 km	511.0000 kHz	
2111 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	003E18 36N40 900 km	519.0000 kHz	
2112 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 850 km	1608.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU AIM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2113 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 850 km	1612.0000 kHz	
2114 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 850 km	1617.0000 kHz	
2115 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	003E18 36N40 850 km	1621.0000 kHz	
2167 ADD	ALG	ALGER RADIO 003E18 36N40	FC CP 7TA	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	003E18 36N40 1000 km	426.0000 kHz	
2092 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	007E45 36N54 1100 km	1761.0000 kHz	
2093 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	007E45 36N54 1100 km	1731.0000 kHz	
2094 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	007E45 36N54 1100 km	1680.0000 kHz	
2095 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	007E45 36N54 1100 km	1653.0000 kHz	
2096 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1100 km	1614.0000 kHz	
2097 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1100 km	1623.0000 kHz	
2127 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1100 km	1610.0000 kHz	
2128 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1450 km	521.0000 kHz	
2129 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	007E45 36N54 1450 km	514.0000 kHz	
2130 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	007E45 36N54 1450 km	458.0000 kHz	
2131 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1500 km	453.0000 kHz	
2132 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1500 km	442.0000 kHz	
2133 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	007E45 36N54 1500 km	438.0000 kHz	
2134 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	007E45 36N54 1500 km	429.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2135 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	007E45 36N54 1500 km	425.0000 kHz	
2136 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1500 km	422.5000 kHz	
2137 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1500 km	419.0000 kHz	
2164 ADD	ALG	ANNABA RADIO 007E45 36N54	FC CP 7TB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	007E45 36N54 1100 km	1619.0000 kHz	
2101 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	005E05 36N45 850 km	439.0000 kHz	
2149 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	005E05 36N45 700 km	1615.0000 kHz	
2150 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	005E05 36N45 700 km	1611.0000 kHz	
2151 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	005E05 36N45 800 km	515.0000 kHz	
2152 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 SIMPLEX	340HF1B	X 30.0 dBW	ND	005E05 36N45 850 km	457.5000 kHz	
2153 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 SIMPLEX	340HF1B	X 30.0 dBW	ND	005E05 36N45 850 km	450.0000 kHz	
2154 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	005E05 36N45 900 km	453.5000 kHz	
2155 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	005E05 36N45 850 km	440.5000 kHz	
2156 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	005E05 36N45 1200 km	432.0000 kHz	
2157 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	005E05 36N45 850 km	424.0000 kHz	
2158 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	005E05 36N45 850 km	421.0000 kHz	
2161 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005E05 36N45 700 km	1689.0000 kHz	
2165 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005E05 36N45 700 km	1719.0000 kHz	
2166 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005E05 36N45 700 km	1662.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2184 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005E05 36N45 700 km	2121.0000 kHz	
2185 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005E05 36N45 700 km	2138.0000 kHz	
2186 ADD	ALG	BEJAIA RADIO 005E05 36N45	FC CP 7TG	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005E05 36N45 700 km	2111.0000 kHz	
2168 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 SIMPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 800 km	450.5000 kHz	
2169 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 750 km	517.0000 kHz	
2170 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 750 km	524.0000 kHz	
2171 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 750 km	513.5000 kHz	
2172 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	001W52 35N06 800 km	430.0000 kHz	
2173 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	001W52 35N06 800 km	422.0000 kHz	
2174 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	001W52 35N06 800 km	428.0000 kHz	
2175 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 750 km	513.5000 kHz	
2176 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 800 km	443.0000 kHz	
2177 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	001W52 35N06 800 km	436.0000 kHz	
2178 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	001W52 35N06 800 km	439.5000 kHz	
2179 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 700 km	1607.0000 kHz	
2180 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001W52 35N06 700 km	1620.0000 kHz	
2181 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	001W52 35N06 750 km	1650.0000 kHz	
2182 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	001W52 35N06 700 km	1779.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2183 ADD	ALG	GHAZAOUET RADIO 001W52 35N06	FC CP 7TT	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	001W52 35N06 700 km	1794.0000 kHz	
2084 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1050 km	1609.0000 kHz	
2088 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	000W08 35N46 1050 km	1770.0000 kHz	
2089 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	000W08 35N46 1050 km	1749.0000 kHz	
2090 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	000W08 35N46 1050 km	1725.0000 kHz	
2091 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	000W08 35N46 1050 km	1647.0000 kHz	
2116 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	000W08 35N46 1050 km	1622.0000 kHz	
2117 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1050 km	1618.0000 kHz	
2118 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	000W08 35N46 1050 km	1613.0000 kHz	
2119 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	000W08 35N46 1100 km	520.0000 kHz	
2120 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1100 km	513.0000 kHz	
2121 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 SIMPLEX	340HF1B	X 33.0 dBW	ND	000W08 35N46 1200 km	452.0000 kHz	
2122 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1200 km	446.0000 kHz	
2123 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	340HF1B	X 33.0 dBW	ND	000W08 35N46 1200 km	441.0000 kHz	
2124 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1200 km	437.0000 kHz	
2125 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1200 km	431.0000 kHz	
2126 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1200 km	416.0000 kHz	
2159 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 SIMPLEX	340HF1B	X 33.0 dBW	ND	000W08 35N46 1200 km	427.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2162 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 1200 km	457.0000 kHz	
2163 ADD	ALG	ORAN RADIO 000W08 35N46	FC CP 7TO	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	000W08 35N46 850 km	432.0000 kHz	
2098 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	001E18 36N32 750 km	1659.0000 kHz	
2099 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	001E18 36N32 750 km	1740.0000 kHz	
2100 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	001E18 36N32 750 km	1785.0000 kHz	
2138 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001E18 36N32 750 km	1624.0000 kHz	
2139 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	001E18 36N32 750 km	1616.0000 kHz	
2140 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	001E18 36N32 900 km	458.5000 kHz	
2141 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	001E18 36N32 850 km	453.5000 kHz	
2142 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001E18 36N32 900 km	447.5000 kHz	
2143 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001E18 36N32 900 km	442.5000 kHz	
2144 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001E18 36N32 900 km	438.5000 kHz	
2145 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	001E18 36N32 900 km	429.5000 kHz	
2146 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	001E18 36N32 900 km	423.0000 kHz	
2147 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	001E18 36N32 850 km	516.0000 kHz	
2148 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 DUPLEX	340HF1B	X 30.0 dBW	ND	001E18 36N32 850 km	523.0000 kHz	
2160 ADD	ALG	TENES RADIO 001E18 36N32	FC CP 7TN	0000-2400 SIMPLEX	340HF1B	X 30.0 dBW	ND	001E18 36N32 900 km	418.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
BEL						**Belgique Belgium Bélgica**				
2190 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1650.9000 kHz	152
2191 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1653.9000 kHz	152
2192 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1706.4000 kHz	152
2193 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1709.4000 kHz	152
2194 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1818.4000 kHz	152
2195 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1821.4000 kHz	152
2196 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1902.4000 kHz	152
2197 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1905.4000 kHz	152
2198 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1906.4000 kHz	152
2199 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1909.4000 kHz	152
2200 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2088.4000 kHz	152
2201 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2091.4000 kHz	152
2202 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2482.4000 kHz	152
2203 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2485.4000 kHz	152
2204 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2759.4000 kHz	152

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2205 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2762.4000 kHz	152
2206 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2815.4000 kHz	152
2207 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	2818.4000 kHz	152
2208 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	3630.4000 kHz	152
2209 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	3633.4000 kHz	152
2210 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	3653.4000 kHz	152
2211 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	3656.4000 kHz	152
2212 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	3682.4000 kHz	152
2213 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	3685.4000 kHz	152
2214 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	500 kHz	150
2215 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	500 kHz	150
2216 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151
2217 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151
2218 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151
2219 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151
2220 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151
2221 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151
2222 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2223 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	300HF1B	X 33.0 dBW	ND	002E48 51N11 500 km	1600 kHz	151
2224 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K10A2A	X 33.0 dBW	ND	002E48 51N11 500 km	435.0000 kHz	1333
2225 ADD	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K10A2A	X 33.0 dBW	ND	002E48 51N11 500 km	489.0000 kHz	1333

BHR

Bahreïn (Etat de)
Bahrain (State of)
Bahrein (Estado de)

2364 ADD	BHR	BAHRAIN 050E35 26N14	FC CP	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	050E35 26N14 600 km	2090.0000 kHz	
2365 ADD	BHR	BAHRAIN 050E35 26N14	FC CP	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	050E35 26N14 600 km	2104.0000 kHz	
2366 ADD	BHR	BAHRAIN 050E35 26N14	FC CP	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	050E35 26N14 600 km	2111.0000 kHz	
2367 ADD	BHR	BAHRAIN 050E35 26N14	FC CP	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	050E35 26N14 600 km	2091.0000 kHz	
2368 ADD	BHR	BAHRAIN 050E35 26N14	FC CP	0000-2400 SIMPLEX	2K80J3E	X 26.0 dBW	ND	050E35 26N14 600 km	2102.9000 kHz	
2369 ADD	BHR	BAHRAIN 050E35 26N14	FC CO	0000-2400 SIMPLEX	100HA1A	X 22.0 dBW	ND	050E35 26N14 600 km	2138.5000 kHz	
2370 ADD	BHR	BAHRAIN 050E35 26N14	FC CP	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	050E35 26N14 600 km	2146.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
COG					**Congo (République populaire du) Congo (People's Republic of the) Congo (República Popular del)**					
2231 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0600-1900 SIMPLEX		X 30.0 dBW	ND	1000 km	500.0000 kHz	
2232 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0600-1900 SIMPLEX		X 30.0 dBW	ND	1000 km	512.5000 kHz	442
2233 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0600-1900 SIMPLEX		X 30.0 dBW	ND	1000 km	524.0000 kHz	443
2234 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0000-2400 SIMPLEX		X 30.0 dBW	ND	1000 km	1620.0000 kHz	444
2235 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0000-2400 SIMPLEX		X 30.0 dBW	ND	1000 km	1670.0000 kHz	445
2236 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0000-2400 SIMPLEX		X 30.0 dBW	ND	1000 km	2048.0000 kHz	445
2237 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0000-2400 SIMPLEX		X 30.0 dBW	ND	1000 km	2130.0000 kHz	445
2238 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0000-2400 SIMPLEX		X 30.0 dBW	ND	1000 km	2150.0000 kHz	446
2239 INCPL	COG	POINTE NOIRE RADIO 011E52 04S47	FC CP TNA	0000-2400		X 30.0 dBW	ND	1000 km	2158.0000 kHz	446

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
CVA				**Cité du Vatican (Etat de la) Vatican City State Ciudad del Vaticano (Estado de la)**						
2292 ADD	CVA	CITE DU VATICAN 012E27 41N55	FC OT CVA2	0000-2400 SIMPLEX	2K80J3E	X 40.0 dBW	ND	012E27 41N55 600 km	1611.0000 kHz	
2293 ADD	CVA	CITE DU VATICAN 012E27 41N55	FC OT CVA1	0000-2400 SIMPLEX	304HF1B	X 36.0 dBW	ND	012E27 41N55 600 km	526.0000 kHz	
E				**Espagne Spain España**						
1819 MOD	F	BREST 004W19 48N26	FC CO FUE	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	001W45 43N23 010W00 44N10 010W00 50N00 005W00 50N00 000W01 50N45 000W01 49N25	444.0000 kHz 500 kHz	1291
1821 MOD	F	CHERBOURG 001W37 49N35	FC CO FUC	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	004W45 48N20 004W45 50N00 001E10 51N10 001E55 50N55 000E01 49N25	458.0000 kHz	1291
HOL				**Pays-Bas (Royaume des) Netherlands (Kingdom of the) Países Bajos (Reino de los)**						
449 MOD	HOL	AMSTERDAM 004E51 52N22	FC CP PBA3	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004E51 52N22 180 km	1699.4000 kHz	
432 MOD	HOL	DEN HELDER 004E45 52N55	FC CP	0000-2400 DUPLEX	280HF1BCN	X 30.0 dBW	ND	004E45 52N55 500 km		82
437 MOD	HOL	DEN HELDER 004E45 52N55	FC CP	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	004E45 52N55 500 km		

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
446 MOD	HOL	DEN HELDER 004E45 52N55	FC CP PBB3	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004E45 52N55 180 km	1720.4000 kHz	
448 MOD	HOL	DEN HELDER 004E45 52N55	FC CP PBB3	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	004E45 52N55 360 km	1723.4000 kHz	
439 MOD	HOL	HOEK VAN HOLLAND 004E07 52N00	FC CP	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	004E07 52N00 100 km	1643.9000 kHz	
441 MOD	HOL	IJMUIDEN 004E35 52N28	FC CP	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	004E35 52N28 100 km		
431 MOD	HOL	OUDDORP 003E53 51N48	FC CP	0000-2400 DUPLEX	280HF1BCN	X 30.0 dBW	ND	003E53 51N48 500 km		82
436 MOD	HOL	OUDDORP 003E53 51N48	FC CP	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	003E53 51N48 500 km		
447 MOD	HOL	OUDDORP 003E53 51N48	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 20.0 dBW	ND	003E53 51N48 180 km		
440 MOD	HOL	TERSCHELLING LSTN 005E13 53N22	FC CP	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	005E13 53N22 300 km	1658.9000 kHz	
438 MOD	HOL	VLISSINGEN 003E37 51N27	FC CP	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	003E37 51N27 100 km	1628.9000 kHz	
445 MOD	HOL	VLISSINGEN 003E37 51N27	FC CP	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	003E37 51N27 180 km		

I Italie / Italy / Italia

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
613 MOD	I	GRADO 013E23 45N41	FC CV IQV	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	013E23 45N41 80 km		

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
						Irlande					
IRL						**Ireland**					
						Irlanda					
546 MOD	IRL	BALLYCOTTON LSTN 007W59 51N50	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	007W59 51N50	150 km	1663.9000 kHz	118
553 MOD	IRL	EAGLE ISLAND LSTN 010W06 54N17	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W06 54N17	150 km	1663.9000 kHz	118
536 MOD	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	008W18 51N50	500 km	516.0000 kHz	
537 MOD	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	008W18 51N50	500 km	500 kHz	
544 MOD	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	008W18 51N50	370 km	2000 kHz	
573 MOD	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	008W18 51N50	500 km	2135.0000 kHz	
558 MOD	IRL	INISHTEARAGHT LSTN 010W39 52N04	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W39 52N04	150 km	1663.9000 kHz	118
559 MOD	IRL	INISHTRAHULL LSTN 007W14 55N25	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	007W14 55N25	150 km	1663.9000 kHz	118
560 MOD	IRL	KISH BANK LSTN 005W55 53N19	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W55 53N19	150 km	1663.9000 kHz	118
562 MOD	IRL	LOOPHEAD LSTN 009W56 52N34	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W56 52N34	150 km	1663.9000 kHz	118
541 MOD	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	007W21 55N22	500 km	421.0000 kHz	
542 MOD	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	007W21 55N22	500 km	500 kHz	
543 MOD	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	007W21 55N22	500 km	500 kHz	
577 MOD	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W21 55N22	370 km	1839.4000 kHz	
578 MOD	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W21 55N22	370 km	1842.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
579 MOD	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	007W21 55N22 500 km	1618.0000 kHz	
570 MOD	IRL	TORY ISLAND LSTN 008W15 55N16	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	008W15 55N16 150 km	1663.9000 kHz	118
538 MOD	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	010W21 51N56 500 km	429.0000 kHz	
539 MOD	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	010W21 51N56 500 km	500 kHz	
540 MOD	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	010W21 51N56 500 km	500 kHz	
574 MOD	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	010W21 51N56 370 km	1825.4000 kHz	
575 MOD	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	010W21 51N56 370 km	1828.4000 kHz	
576 MOD	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	010W21 51N56 500 km	2000 kHz	
572 MOD	IRL	WICKLOW HEAD LSTN 006W00 52N58	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W00 52N58 150 km	1663.9000 kHz	118

ISR

Israël (Etat d')
Israel (State of)
Israel (Estado de)

2281 ADD	ISR	HAIFA NAVAL RADIO 035E03 32N49	FC CO 4XZ	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	035E03 32N49 1000 km		1320
2285 ADD	ISR	HAIFA NAVAL RADIO 035E03 32N49	FC CO 4XZ	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	035E03 32N49 1000 km		1324
2288 ADD	ISR	HAIFA NAVAL RADIO 035E03 32N49	FC CO 4XZ	0000-2400 DUPLEX	2K99R3E	X 34.8 dBW	ND	035E03 32N49 1000 km		1327
2282 ADD	ISR	HAIFA RADIO 035E00 32N48	FC CP 4XO	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	035E00 32N48 1000 km		1321
2283 ADD	ISR	HAIFA RADIO 035E00 32N48	FC CP 4XO	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	035E00 32N48 1000 km		1322
2284 ADD	ISR	HAIFA RADIO 035E00 32N48	FC CP 4XO	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	035E00 32N48 1000 km		1323

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2286 ADD	ISR	HAIFA RADIO 035E00 32N48	FC CP 4XO	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	035E00 32N48 1000 km		1325
2287 ADD	ISR	HAIFA RADIO 035E00 32N48	FC CP 4XO	0000-2400 DUPLEX	2K99R3E	X 34.8 dBW	ND	035E00 32N48 1000 km		1326
2289 ADD	ISR	HAIFA RADIO 035E00 32N48	FC CP 4XO	0000-2400 DUPLEX	2K99R3E	X 34.8 dBW	ND	035E00 32N48 1000 km		1328

KEN

Kenya (République du)
Kenya (Republic of)
Kenya (República de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2388 ADD	KEN	MOMBASA RADIO 039E44 03S58	FC CP 5ZF	0000-2400 DUPLEX	100HA1AAN	X 34.8 dBW	ND	039E40 04S05 1500 km	524.0000 kHz	

MAU

Maurice
Mauritius
Mauricio

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2256 ADD	MAU	MAURITIUS RADIO 057E30 20S20	FC OT 3BB	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	057E30 20S20 600 km	518.0000 kHz	
2257 ADD	MAU	MAURITIUS RADIO 057E30 20S20	FC CP 3BB	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	057E30 20S20 600 km	460.0000 kHz	
2258 ADD	MAU	MAURITIUS RADIO 057E30 20S20	FC CP 3BB	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	057E30 20S20 600 km	510.5000 kHz	
2259 ADD	MAU	MAURITIUS RADIO 057E30 20S20	FC CP 3BB	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	057E30 20S20 600 km	512.0000 kHz	
2260 ADD	MAU	MAURITIUS RADIO 057E30 20S20	FC CP 3BB	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	057E30 20S20 600 km	514.0000 kHz	
2261 ADD	MAU	MAURITIUS RADIO 057E30 20S20	FC CP 3BB	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	057E30 20S20 600 km	522.0000 kHz	
2262 ADD	MAU	MAURITIUS RADIO 057E30 20S20	FC CP 3BB	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	057E30 20S20 600 km	443.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
MCO						**Monaco Mónaco**					
2254 ADD	MCO	MONACO RADIO 007E25 43N43	FC CP 3AB	0000-2400 DUPLEX	3K00J3E	X 37.0 dBW	ND	007E25 43N43	500 km	1742.0000 kHz	
2255 ADD	MCO	MONACO RADIO 007E25 43N43	FC CP 3AB	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	007E25 43N43	500 km	483.0000 kHz	
MLT						**Malte (République de) Malta (Republic of) Malta (República de)**					
2419 ADD	MLT	MALTARADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 dBW	ND	014E24 35N49	1000 km	2000 kHz	
2420 ADD	MLT	MALTARADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	304HF1BCN	X 37.0 dBW	ND	014E24 35N49	1000 km	2000 kHz	77
2421 ADD	MLT	MALTARADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 dBW	ND	014E24 35N49	1000 km	2000 kHz	
2422 ADD	MLT	MALTARADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 dBW	ND	014E24 35N49	1000 km	2000 kHz	
2423 ADD	MLT	MALTARADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	304HF1BCN	X 37.0 dBW	ND	014E24 35N49	1000 km	2000 kHz	78
2424 ADD	MLT	MALTARADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	100HA1AAN	X 34.8 dBW	ND	014E24 35N49	1000 km	500 kHz	
2425 ADD	MLT	MALTARADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	100HA1AAN	X 34.8 dBW	ND	014E24 35N49	1000 km	500 kHz	
2426 ADD	MLT	MALTARADIO 014E32 35N40	FC CP	0000-2400 SIMPLEX	304HF1BCN	X 34.8 dBW	ND	014E24 35N49	1000 km	500 kHz	77
2427 ADD	MLT	MALTARADIO 014E32 35N40	FC CP	0000-2400 SIMPLEX	304HF1BCN	X 34.8 dBW	ND	014E24 35N49	1000 km	500 kHz	78

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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MOZ

Mozambique (République populaire du)
Mozambique (People's Republic of)
Mozambique (República Popular de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2271 ADD	MOZ	BEIRA RADIONAVAL 034E52 19S50	FC CO C9C2	0000-2400 SIMPLEX	2K10A2AAN	X 28.7 dBW	ND	034E52 19S50	500 km	515.0000 kHz	
2275 ADD	MOZ	BEIRA RADIONAVAL 034E52 19S50	FC CO C9C2	0000-2400 SIMPLEX	100HA1A	X 28.7 dBW	ND	034E52 19S50	500 km	500.0000 kHz	
2276 ADD	MOZ	BEIRA RADIONAVAL 034E52 19S50	FC CO C9C2	0000-2400 SIMPLEX	100HA1A	X 28.7 dBW	ND	034E52 19S50	500 km	515.0000 kHz	
2272 ADD	MOZ	MAPUTO RADIONAVAL 032E34 25S50	FC CO C9C	0000-2400 SIMPLEX	2K10A2AAN	X 30.0 dBW	ND	032E34 25S50	500 km	500.0000 kHz	
2277 ADD	MOZ	MAPUTO RADIONAVAL 032E34 25S50	FC CO C9C	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	032E34 25S50	500 km	484.0000 kHz	
2278 ADD	MOZ	MAPUTO RADIONAVAL 032E34 25S50	FC CO C9C	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	032E34 25S50	500 km	487.0000 kHz	
2280 ADD	MOZ	MAPUTO RADIONAVAL 032E34 25S50	FC CO C9C	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	032E34 25S50	500 km	500.0000 kHz	
2269 ADD	MOZ	PEMBA RADIONAVAL 040E29 12S58	FC CO C9C20	0000-2400 SIMPLEX	100HA1A	X 28.7 dBW	ND	040E29 12S58	500 km	500.0000 kHz	
2270 ADD	MOZ	PEMBA RADIONAVAL 040E29 12S58	FC CO C9C20	0000-2400 SIMPLEX	2K10A2AAN	X 28.7 dBW	ND	040E29 12S58	500 km	487.0000 kHz	
2273 ADD	MOZ	PEMBA RADIONAVAL 040E29 12S58	FC CO C9C20	0000-2400 SIMPLEX	2K10A2AAN	X 28.7 dBW	ND	040E29 12S58	500 km	500.0000 kHz	
2274 ADD	MOZ	PEMBA RADIONAVAL 040E29 12S58	FC CO C9C20	0000-2400 SIMPLEX	100HA1A	X 28.7 dBW	ND	040E29 12S58	500 km	487.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
NOR						**Norvège Norway Noruega**						
1723 MOD	NOR	FARSUND	007E59 58N04	FC CP LGZ	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	007E59 58N04	370 km	2635.0000 kHz	
1708 MOD	NOR	TRONDHEIM	010E25 63N26	FC CO	0000-2400 DUPLEX	3K00J3E	X 20.0 dBW	ND	010E25 63N26	100 km		
OMA						**Oman (Sultanat d') Oman (Sultanate of) Omán (Sultanía de)**						
2251 MOD	OMA	MUSCAT	058E30 23N37	FC CO A4M2	0000-2400 DUPLEX	3K00J3E	X 20.0 dBW	ND	058E30 23N37	30 km	1639.4000 kHz	
2372 ADD	OMA	MUSCAT	058E30 23N37	FC CP MS	0000-2400 DUPLEX	304HF1BCN	X 20.0 dBW	ND	058E30 23N37	150 km	436.0000 kHz	
2373 ADD	OMA	MUSCAT	058E30 23N37	FC CP MCT	0000-2400 DUPLEX	304HF1BCN	X 20.0 dBW	ND	058E30 23N37	150 km	525.0000 kHz	
2245 MOD	OMA	SALALAH	054E06 17N01	FC CO A4M4	0000-2400 DUPLEX	3K00J3E	X 20.0 dBW	ND	054E06 17N01	30 km	1657.4000 kHz	
2371 ADD	OMA	SALALAH	054E06 17N01	FC CP SL	0000-2400 DUPLEX	304HF1BCN	X 20.0 dBW	ND	054E06 17N01	150 km	449.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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POL

Pologne (République populaire de)
Poland (People's Republic of)
Polonia (República Popular de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2294 ADD	POL	DABKI 016E19 54N23	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	016E19 54N23 600 km	1783.4000 kHz	
2295 ADD	POL	DARLOWO 016E25 54N24	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	016E25 54N24 500 km	1684.4000 kHz	
2296 ADD	POL	DARLOWO 016E25 54N24	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	016E25 54N24 500 km	1744.4000 kHz	
2297 ADD	POL	DZIWNOW 014E44 54N01	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	014E44 54N01 500 km	1714.4000 kHz	
2298 ADD	POL	GDANSK 018E40 54N22	FC CO SPU	0000-2400 DUPLEX	2K70J3EJN	X 28.0 dBW	ND	018E40 54N22 700 km	1699.4000 kHz	
2299 ADD	POL	GDANSK 018E40 54N22	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	018E40 54N22 500 km	1660.4000 kHz	
2300 ADD	POL	GDYNIA 018E32 54N32	FC CO SPH	0000-2400 SIMPLEX	2K10A2AAN	X 36.0 dBW	ND	018E32 54N32 1000 km	421.0000 kHz	
2301 ADD	POL	GDYNIA 018E32 54N32	FC OT SPH	0000-2400 SIMPLEX	2K10A2AAN	X 36.0 dBW	ND	018E32 54N32 1000 km	435.0000 kHz	
2302 ADD	POL	GDYNIA 018E32 54N32	FC CP SPH	0000-2400 SIMPLEX	2K10A2AAN	X 36.0 dBW	ND	018E32 54N32 1000 km	447.0000 kHz	
2303 ADD	POL	GDYNIA 018E32 54N32	FC CR SPH	0000-2400 SIMPLEX	2K10A2AAN	X 36.0 dBW	ND	018E32 54N32 1000 km	458.0000 kHz	
2304 ADD	POL	GDYNIA 018E32 54N32	FC CP SPH	0000-2400 SIMPLEX	2K10A2AAN	X 36.0 dBW	ND	018E32 54N32 1000 km	512.0000 kHz	
2305 ADD	POL	GDYNIA 018E32 54N32	FC CR SPR	0000-2400 DUPLEX	2K70J3EJN	X 28.0 dBW	ND	018E32 54N32 700 km	1738.4000 kHz	
2306 ADD	POL	HEL 018E48 54N36	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	018E48 54N36 500 km	1669.4000 kHz	
2307 ADD	POL	IZBICA 017E25 54N41	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	017E25 54N41 600 km	1717.4000 kHz	
2308 ADD	POL	JAROSLAWIEC 016E34 54N33	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	016E34 54N33 700 km	1654.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2309 ADD	POL	KARWIA 018E14 54N50	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	018E14 54N50 700 km	1687.4000 kHz	
2310 ADD	POL	KOLOBRZEG 015E34 54N11	FC CR SPK	0000-2400 SIMPLEX	2K10A2AAN	X 30.0 dBW	ND	015E34 54N11 500 km	435.0000 kHz	
2311 ADD	POL	KOLOBRZEG 015E34 54N11	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	015E34 54N11 500 km	1720.4000 kHz	
2312 ADD	POL	KOLOBRZEG 015E34 54N11	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	015E34 54N11 500 km	1690.4000 kHz	
2313 ADD	POL	KRYNICA MORSKA 019E26 54N23	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	019E26 54N23 900 km	1613.5000 kHz	
2314 ADD	POL	KRYNICA MORSKA 019E26 54N23	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	019E26 54N23 900 km	1780.4000 kHz	
2315 ADD	POL	LAZY 016E12 54N18	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	016E12 54N18 900 km	1621.0000 kHz	
2316 ADD	POL	LAZY 016E12 54N18	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	016E12 54N18 900 km	1732.4000 kHz	
2317 ADD	POL	LEBA 017E32 54N44	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	017E32 54N44 500 km	1648.4000 kHz	
2318 ADD	POL	MECHELINKA 018E31 54N36	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	018E31 54N36 500 km	1663.4000 kHz	
2319 ADD	POL	MIEDZYWODZIE 014E42 54N01	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	014E42 54N01 800 km	1623.5000 kHz	
2320 ADD	POL	MIEDZYWODZIE 014E42 54N01	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	014E42 54N01 800 km	1723.4000 kHz	
2321 ADD	POL	MIEDZYZDROJE 014E28 53N56	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	014E28 53N56 600 km	1636.4000 kHz	
2322 ADD	POL	MIKOSZEWO 019E58 54N21	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	019E58 54N21 500 km	1705.4000 kHz	
2323 ADD	POL	MRZEZYNO 015E19 54N09	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	015E19 54N09 500 km	1642.4000 kHz	
2324 ADD	POL	POBIEROWO 014E54 54N04	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	014E54 54N04 800 km	1612.0000 kHz	
2325 ADD	POL	POBIEROWO 014E54 54N04	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	014E54 54N04 800 km	1792.4000 kHz	
2326 ADD	POL	SARBINOWO 015E57 54N16	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	015E57 54N16 900 km	1618.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2327 ADD	POL	SARBINOWO 015E57 54N16	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	015E57 54N16 900 km	1768.4000 kHz	
2328 ADD	POL	SOBIESZEWO 018E51 54N21	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	018E51 54N21 800 km	1615.0000 kHz	
2329 ADD	POL	SOBIESZEWO 018E51 54N21	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	018E51 54N21 800 km	1786.4000 kHz	
2330 ADD	POL	SUCHACZ 019E28 54N17	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	019E28 54N17 900 km	1619.0000 kHz	
2331 ADD	POL	SUCHACZ 019E28 54N17	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	019E28 54N17 900 km	1747.4000 kHz	
2332 ADD	POL	SWARZEWO 018E24 54N46	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	018E24 54N46 900 km	1608.0000 kHz	
2333 ADD	POL	SWARZEWO 018E24 54N46	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	018E24 54N46 900 km	1795.4000 kHz	
2334 ADD	POL	SWINOUJSCIE 014E15 53N52	FC OT	0000-2400 DUPLEX	400HF1BCN	X 30.0 dBW	ND	014E15 53N52 800 km	1616.5000 kHz	
2335 ADD	POL	SWINOUJSCIE 014E15 53N52	FC OT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	014E15 53N52 800 km	1759.4000 kHz	
2336 ADD	POL	SWINOUJSCIE 014E15 53N52	FC CR SPR	0000-2400 DUPLEX	2K70J3EJN	X 28.0 dBW	ND	014E15 53N52 700 km	1738.4000 kHz	
2337 ADD	POL	SZCZECIN 014E35 53N28	FC CP SPE	0000-2400 SIMPLEX	2K10A2AAN	X 33.0 dBW	ND	014E35 53N28 800 km	435.0000 kHz	
2338 ADD	POL	SZCZECIN 014E35 53N28	FC CO SPE	0000-2400 SIMPLEX	2K10A2AAN	X 33.0 dBW	ND	014E35 53N28 800 km	447.0000 kHz	
2339 ADD	POL	SZCZECIN 014E35 53N28	FC CP SPE	0000-2400 SIMPLEX	2K10A2AAN	X 33.0 dBW	ND	014E35 53N28 800 km	458.0000 kHz	
2340 ADD	POL	SZCZECIN 014E35 53N28	FC CP SPE	0000-2400 SIMPLEX	2K10A2AAN	X 33.0 dBW	ND	014E35 53N28 800 km	484.0000 kHz	
2341 ADD	POL	SZCZECIN 014E35 53N28	FC CO SPE	0000-2400 SIMPLEX	2K10A2AAN	X 33.0 dBW	ND	014E35 53N28 800 km	512.0000 kHz	
2342 ADD	POL	SZCZECIN 014E35 53N28	FC CP SPO	0000-2400 DUPLEX	2K70J3EJN	X 33.0 dBW	ND	014E35 53N28 1500 km	1759.4000 kHz	
2343 ADD	POL	USTKA 016E52 54N34	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	016E52 54N34 500 km	1696.4000 kHz	
2344 ADD	POL	USTKA 016E52 54N34	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	016E52 54N34 500 km	1726.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2345 ADD	POL	WITOWO	016E32 54N33	FC CP SPN	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	016E32 54N33 300 km	444.0000 kHz	
2346 ADD	POL	WITOWO	016E32 54N33	FC CP SPN	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	016E32 54N33 300 km	512.0000 kHz	
2347 ADD	POL	WLADYSLAWOWO	018E25 54N45	FC CV	0000-2400 DUPLEX	2K70J3EJN	X 25.0 dBW	ND	018E25 54N45 500 km	1684.4000 kHz	

REU

Réunion (Département français de la)
Reunion (French Department of)
Reunión (Departamento francés de la)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2068 MOD	REU F	S DENIS	055E36 20S53	FC CP FFD	0000-2400 DUPLEX	304HF1B	X 31.5 dBW	ND	055E36 20S53 800 km		1289

ROU

Roumanie (République socialiste de)
Romania (Socialist Republic of)
Rumania (República Socialista de)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2434 ADD	ROU	AGIGEA	028E39 44N06	FC CP YQN	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	028E39 44N06 700 km	427.0000 kHz	
2435 ADD	ROU	AGIGEA	028E39 44N06	FC CP YQN	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	028E39 44N06 700 km	427.0000 kHz	
2436 ADD	ROU	AGIGEA	028E39 44N06	FC CP YQN	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	028E39 44N06 1000 km	1600 kHz	
2437 ADD	ROU	AGIGEA	028E39 44N06	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	028E39 44N06 700 km	1700 kHz	
2438 ADD	ROU	CONSTANTA	028E37 44N06	FC CP YQI	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	028E37 44N06 700 km	461.0000 kHz	
2439 ADD	ROU	CONSTANTA	028E37 44N06	FC CP YQI	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	028E37 44N06 700 km	461.0000 kHz	
2440 ADD	ROU	CONSTANTA	028E37 44N06	FC CP YQI	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	028E37 44N06 700 km	1700 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2441 ADD	ROU	CONSTANTA 028E37 44N06	FC CP RADIO 1	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	028E37 44N06 700 km	1700 kHz	
2442 ADD	ROU	CONSTANTA 028E37 44N06	FC OT RADIO 2	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	028E37 44N06 250 km	1700 kHz	
2443 ADD	ROU	CONSTANTA 028E37 44N06	FC OT RADIO 3	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	028E37 44N06 200 km	1686.4000 kHz	
2444 ADD	ROU	CONSTANTA 028E37 44N06	FC OT RADIO 4	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	028E37 44N06 300 km	1700 kHz	
2445 ADD	ROU	MANGALIA 028E35 43N48	FC CP	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	028E35 43N48 500 km	500 kHz	
2446 ADD	ROU	MANGALIA 028E35 43N48	FC CP	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	028E35 43N48 500 km	500 kHz	
2447 ADD	ROU	MANGALIA 028E35 43N48	FC CP	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	028E35 43N48 500 km	1600 kHz	
2448 ADD	ROU	MANGALIA 028E35 43N48	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	028E35 43N48 500 km	1700 kHz	
2453 ADD	ROU	SULINA 029E39 45N09	FC CP YQY	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	029E39 45N09 700 km	484.0000 kHz	
2454 ADD	ROU	SULINA 029E39 45N09	FC CP YQY	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	029E39 45N09 700 km	484.0000 kHz	
2455 ADD	ROU	SULINA 029E39 45N09	FC CP YQY	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	029E39 45N09 1000 km	1600 kHz	
2456 ADD	ROU	SULINA 029E39 45N09	FC CP RADIO 1	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	029E39 45N09 1000 km	1700 kHz	
2457 ADD	ROU	SULINA 029E39 45N09	FC OT RADIO 2	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	029E39 45N09 250 km	1700 kHz	
2449 ADD	ROU	TULCEA 028E50 45N12	FC CP YPD	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	028E50 45N12 700 km	500 kHz	
2450 ADD	ROU	TULCEA 028E50 45N12	FC CP YPD	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	028E50 45N12 700 km	500 kHz	
2451 ADD	ROU	TULCEA 028E50 45N12	FC CP YPD	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	028E50 45N12 1000 km	1600 kHz	
2452 ADD	ROU	TULCEA 028E50 45N12	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	028E50 45N12 1000 km	1700 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
STP				**Sao Tomé-et-Principe (République démocratique de) Sao Tome and Principe (Democratic Republic of) Santo Tomé y Príncipe (República Democrática de)**						
2082 ADD	STP	S TOME RADIO 006E44 00N21	FC CP S9MM	0000-2400 SIMPLEX	100HA1AAN	X 27.0 dBW	ND	006E44 00N21 400 km	487.0000 kHz	
2348 ADD	STP	S TOME RADIO 006E44 00N21	FC CP S9MM	0000-2400 SIMPLEX	100HA1AAN	X 27.0 dBW	ND	006E44 00N21 400 km	421.0000 kHz	
TGO				**Togolaise (République) Togolese Republic Togolesa (República)**						
2252 ADD	TGO	LOME RADIO 001E36 06N15	FC CP 5VA8	0715-1930 DUPLEX	2K80J3E	X 20.1 dBW	ND	001E36 06N15 150 km	1650.0000 kHz	1314
2253 ADD	TGO	LOME RADIO 001E36 06N15	FC CP 5VA8	0715-1930 DUPLEX	100HA1A	X 20.1 dBW	ND	001E36 06N15 150 km	1650.0000 kHz	1314
TUN				**Tunisie Tunisia Túnez**						
2404 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	005E21 43N19 003E18 36N40 014E14 40N50 008E56 44N25 012E21 41N48 009E14 39N13	438.0000 kHz	1334
2405 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	005E21 43N19 003E18 36N40 014E14 40N50 008E56 44N25 012E21 41N48 009E14 39N13	472.0000 kHz	1334
2406 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	1696.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2407 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	1770.0000 kHz	
2408 ADD	TUN	BIZERTE RADIO 009E53 37N16	FC CP 3VB	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	2100.0000 kHz	
2389 ADD	TUN	GABES RADIO 007E45 33N53	FC CP 3VG	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	020E03 32N07 013E11 32N54 014E29 35N55 033E26 35N09 023E53 38N00 019E55 39N37	1764.0000 kHz	
2390 ADD	TUN	GABES RADIO 007E45 33N53	FC CP 3VG	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	2122.0000 kHz	
2391 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	014E14 40N50 008E56 44N25 012E21 41N48 010E19 43N29 005E21 43N19 013E11 32N54	427.0000 kHz	1334
2392 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	014E14 40N50 008E56 44N25 012E21 41N48 010E19 43N29 005E21 43N19 013E11 32N54	484.0000 kHz	1334
2393 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	014E29 35N55 020E03 32N07 013E11 32N54 009E14 39N13 013E22 38N07 025E07 35N20	2135.0000 kHz	
2394 ADD	TUN	KELIBIA RADIO 008E46 36N50	FC CP 3VK	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	014E29 35N55 020E03 32N07 013E11 32N54 009E14 39N13 013E22 38N07 025E07 35N20	1755.0000 kHz	
2395 ADD	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	010E11 36N53 014E21 35N53 012E34 37N38 012E30 38N01 020E03 32N07 013E11 32N54	1655.0000 kHz	
2396 ADD	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	010E11 36N53 014E21 35N53 012E34 37N38 012E30 38N01 020E03 32N07 013E11 32N54	1785.0000 kHz	
2397 ADD	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K7QJ3EJN	X 26.0 dBW	ND	010E11 36N53 014E21 35N53 012E34 37N38 012E30 38N01 020E03 32N07 013E11 32N54	2078.0000 kHz	
2398 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	450.0000 kHz	1334
2399 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	525.0000 kHz	1334
2400 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K7QJ3EJN	X 27.0 dBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	1645.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2401 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	1725.0000 kHz	
2402 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	2070.0000 kHz	
2403 ADD	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 DUPLEX	2K70J3EJN	X 27.0 dBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	2115.0000 kHz	
2409 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	005E21 43N19 003E18 36N40 009E14 39N13 002E43 39N31 008E56 44N25 002E23 41N25	422.0000 kHz	1334
2410 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 SIMPLEX	2K10A2AAN	X 27.0 dBW	ND	005E21 43N19 003E18 36N40 009E14 39N13 002E43 39N31 008E56 44N25 002E23 41N25	490.0000 kHz	1334
2411 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	1778.0000 kHz	
2412 ADD	TUN	TABARKA RADIO 006E25 36N57	FC CP 3VL	0600-1900 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	005E21 43N19 003E18 36N40 007E45 36N54 013E22 38N07 008E56 44N25 014E14 40N50	2144.0000 kHz	
2413 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	418.0000 kHz	1334
2414 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	465.0000 kHz	1334
2415 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	1620.0000 kHz	
2416 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	1797.0000 kHz	
2417 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	2060.0000 kHz	
2418 ADD	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VT	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	2152.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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UAE

Emirats arabes unis
United Arab Emirates
Emiratos Árabes Unidos

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2354 ADD	UAE	ABUDHABI 054E17 24N23	FC CV	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	054E17 24N23	200 km	2057.4000 kHz	
2355 ADD	UAE	ABUDHABI 054E17 24N23	FC CV	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	054E17 24N23	200 km	2060.3000 kHz	
2360 ADD	UAE	ABUDHABI 054E17 24N23	FC CV	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	054E17 24N23	180 km	2086.5000 kHz	
2362 ADD	UAE	ABUDHABI 054E17 24N23	FC CV	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	054E17 24N23	150 km	2132.0000 kHz	
2363 ADD	UAE	ABUDHABI 054E17 24N23	FC CV	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	054E17 24N23	180 km	2153.0000 kHz	
2349 ADD	UAE	BADA HAMAMA 052E45 24N15	FC CV	0000-2400 SIMPLEX	3K00J3EKF	X 22.0 dBW	ND	052E45 25N00	200 km	2047.4000 kHz	
2350 ADD	UAE	DUBAI 055E16 25N14	FC CV	0000-2400 SIMPLEX	2K80J3E	X 20.0 dBW	ND	055E16 25N14	400 km	2048.0000 kHz	
2351 ADD	UAE	DUBAI 055E16 25N14	FC CV	0000-2400 SIMPLEX	2K80J3EKF	X 20.0 dBW	ND	055E16 25N14	100 km	2049.0000 kHz	
2357 ADD	UAE	DUBAI 055E16 25N14	FC CV	0000-2400 SIMPLEX	3K00J3E	X 16.0 dBW	ND	055E16 25N14	160 km	2085.0000 kHz	
2361 ADD	UAE	FUJAIRAH 056E20 25N09	FC CV	0000-2400 SIMPLEX	2K80J3E	X 22.0 dBW	ND	056E20 25N09	400 km	2126.0000 kHz	
2359 ADD	UAE	JEBEL DHANNA 052E38 24N10	FC CV	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	052E38 24N10	200 km	2086.5000 kHz	
2358 ADD	UAE	RASALKHAIMA 055E52 25N38	FC CV	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	055E52 25N38	150 km	2086.5000 kHz	
2352 ADD	UAE	SHARJAH 055E17 25N22	FC CV	0700-2000 DUPLEX	2K80J3E	X 22.0 dBW	ND	055E17 25N22	200 km	2050.4000 kHz	
2353 ADD	UAE	SHARJAH 055E17 25N22	FC CV	0000-2400 DUPLEX	3K00J3E	X 17.0 dBW	ND	055E17 25N22	200 km	2055.0000 kHz	
2356 ADD	UAE	SHARJAH 055E17 25N22	FC CV	0000-2400 DUPLEX	2K80J3E	X 20.0 dBW	ND	055E17 25N22	150 km	2070.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
ZAI				**Zaïre (République du)** **Zaire (Republic of)** **Zaire (República del)**							
2290 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	515.0000 kHz	
2291 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	515.0000 kHz	
2428 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	515.0000 kHz	
2429 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	515.0000 kHz	
2430 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	518.0000 kHz	
2431 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	518.0000 kHz	
2432 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	520.0000 kHz	
2433 ADD	ZAI	BANANA RADIO 012E18 05S53	FC CP 9PA	0600-2100 DUPLEX	100HA1AAN	X 30.0 dBW	ND	012E18 05S53	800 km	520.0000 kHz	

ANNEX 3

Explanation of the symbols included in the list in Annex 4

IFRB No.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the Administration submitting the requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmitting antenna in degrees and minutes.
CL.	Class of station, AL = Aeronautical Radiobeacon.
NAT.	Nature of service.
IDENTIFIC.	Identification signal to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antenna, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antenna : ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area : the geographical coordinates of the center and value of the radius; In case of a service area defined by points : the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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AFS

Sudafricaine (République)
South Africa (Republic of)
Sudafricana (República)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50708	AFS	GIYANI		AL RC	0000-2400	1K20H2A	Y 30.0 dBW	ND	030E40 23S22	100 km	430.0000 kHz	
ADD			030E40 23S22	GI								
50709	AFS	GIYANI		AL RC	0000-2400	1K20H2A	Y 30.0 dBW	ND	030E40 23S22	100 km	430.0000 kHz	
ADD			030E40 23S22	GI								
50706	AFS	JAN SMUTS		AL RC	0000-2400	1K20H2A	Y 33.0 dBW	ND	028E13 26S14	100 km	445.0000 kHz	
ADD			028E13 26S14	JA								
50707	AFS	JAN SMUTS		AL RC	0000-2400	1K20H2A	Y 33.0 dBW	ND	028E13 26S14	100 km	445.0000 kHz	
ADD			028E13 26S14	JA								
50710	AFS	JAN SMUTS		AL RC	0000-2400	1K20H2A	Y 30.0 dBW	ND	028E13 26S14	100 km	420.0000 kHz	
ADD			028E13 26S14	JN								
50711	AFS	JAN SMUTS		AL RC	0000-2400	1K20H2A	Y 30.0 dBW	ND	028E13 26S14	100 km	420.0000 kHz	
ADD			028E13 26S14	JN								
50712	AFS	LOUIS TRICHARDT		AL RC	0000-2400	2K10A2A	Y 20.0 dBW	ND	029E52 23S03	150 km	457.5000 kHz	
ADD			029E52 23S03	LO								
50713	AFS	LOUIS TRICHARDT		AL RC	0000-2400	2K10A2A	Y 20.0 dBW	ND	029E52 23S03	150 km	457.5000 kHz	
ADD			029E52 23S03	LO								
50714	AFS	SAINT LUCIA		AL RC	0000-2400	2K10A2A	Y 20.0 dBW	ND	032E20 28S00	100 km	525.0000 kHz	
ADD			032E20 28S00	STL								
50715	AFS	SAINT LUCIA		AL RC	0000-2400	2K10A2A	Y 20.0 dBW	ND	032E20 28S00	100 km	525.0000 kHz	
ADD			032E20 28S00	STL								
50718	AFS	SOEKOR		AL RC	0000-2400	2K10A2A	Y 14.0 dBW	ND		40 km	445.0000 kHz	1347
INCPL				SOE								
50719	AFS	SOEKOR		AL RC	0000-2400	2K10A2A	Y 14.0 dBW	ND		40 km	445.0000 kHz	1347
INCPL				SOE								
50716	AFS	VEREENIGING		AL RC	0000-2400	2K10A2A	Y 17.0 dBW	ND	027E57 26S32	50 km	460.0000 kHz	
ADD			027E57 26S32	VV								
50717	AFS	VEREENIGING		AL RC	0000-2400	2K10A2A	Y 17.0 dBW	ND	027E57 26S32	50 km	460.0000 kHz	
ADD			027E57 26S32	VV								
50704	AFS	WELCOM		AL RC	0000-2400	2K10A2A	Y 25.2 dBW	ND	026E42 27S58	185 km	435.0000 kHz	
ADD			026E42 27S58	WM								

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
****

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50705 ADD	AFS	WELCOM	026E42 27S58	AL RC WM	0000-2400	2K10A2A	Y	25.2 dBW	ND	026E42 27S58	185 km	435.0000 kHz	

ALG

Algérie (République algérienne démocratique et populaire)
Algeria (People's Democratic Republic of)
Argelia (República Argelina Democrática y Popular)

50506 ADD	ALG	ADRAR	000W14 27N46	AL RC ADR	0000-2400	100HA1A	X	17.0 dBW	ND	000W14 27N46	100 km	418.0000 kHz	
50529 ADD	ALG	ALGER	003E13 36N42	AL RC ALG	0000-2400	100HA1A	X	23.0 dBW	ND	003E13 36N42	300 km	425.0000 kHz	
50505 ADD	ALG	ANNABA	007E47 36N50	AL RC ANB	0000-2400	100HA1A	X	23.0 dBW	ND	007E47 36N50	300 km	417.0000 kHz	
50526 ADD	ALG	BATNA	006E09 35N32	AL RC BTN	0000-2400	100HA1A	X	17.0 dBW	ND	006E09 35N32	100 km	425.0000 kHz	
50522 ADD	ALG	BECHAR	002W14 31N38	AL RC BCR	0000-2400	100HA1A	X	23.0 dBW	ND	002W14 31N38	300 km	434.0000 kHz	
50534 ADD	ALG	BEJAIA	005E02 36N43	AL RC BJA	0000-2400	100HA1A	X	17.0 dBW	ND	005E02 36N43	100 km	423.0000 kHz	
50513 ADD	ALG	BISKRA	005E44 34N48	AL RC BSK	0000-2400	100HA1A	X	17.0 dBW	ND	005E44 34N48	200 km	419.0000 kHz	
50518 ADD	ALG	BORDJ OMAR DOUSS	006E50 28N08	AL RC BOD	0000-2400	100HA1A	X	17.0 dBW	ND	006E50 28N08	100 km	419.0000 kHz	
50533 ADD	ALG	BOU SAADA	004E12 35N20	AL RC BSD	0000-2400	100HA1A	X	17.0 dBW	ND	004E12 35N20	100 km	423.0000 kHz	
50525 ADD	ALG	CHENACHENE	004W13 26N03	AL RC CHN	0000-2400	100HA1A	X	20.0 dBW	ND	004W13 26N03	200 km	431.0000 kHz	
50524 ADD	ALG	CONSTANTINE	006E47 36N11	AL RC CNE	0000-2400	100HA1A	X	23.0 dBW	ND	006E47 36N11	300 km	433.0000 kHz	
50530 ADD	ALG	DJANET	009E26 24N16	AL RC DJA	0000-2400	100HA1A	X	26.0 dBW	ND	009E26 24N16	300 km	424.0000 kHz	
50528 ADD	ALG	EL BAYAD	001E01 33N41	AL RC BAY	0000-2400	100HA1A	X	26.0 dBW	ND	001E01 33N41	300 km	425.0000 kHz	
50521 ADD	ALG	EL GOLEA	002E52 30N35	AL RC ELG	0000-2400	100HA1A	X	23.0 dBW	ND	002E52 30N35	300 km	429.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50520 ADD	ALG	EL OUED	006E47 33N30	AL RC ELO	0000-2400	100HA1A	X 17.0 dBW	ND	006E47 33N30	100 km	434.0000 kHz	
50514 ADD	ALG	GARADJEBILET	007W11 26N53	AL RC JBL	0000-2400	100HA1A	X 20.0 dBW	ND	007W11 26N53	200 km	416.0000 kHz	
50516 ADD	ALG	HASSI EL KHEBI	005W16 29N11	AL RC HKI	0000-2400	100HA1A	X 23.0 dBW	ND	005W16 29N11	200 km	421.0000 kHz	
50535 ADD	ALG	HASSI MESSAOUD	006E08 31N39	AL RC HMD	0000-2400	100HA1A	X 23.0 dBW	ND	006E08 31N39	300 km	423.0000 kHz	
50523 ADD	ALG	ILLIZI	008E29 26N30	AL RC JLZ	0000-2400	100HA1A	X 23.0 dBW	ND	008E29 26N30	300 km	433.0000 kHz	
50509 ADD	ALG	IN AMENAS	009E37 28N03	AL RC ZAR	0000-2400	100HA1A	X 23.0 dBW	ND	009E37 28N03	300 km	417.0000 kHz	
50519 ADD	ALG	IN GUEZZAN	005E46 19N34	AL RC IGZ	0000-2400	100HA1A	X 23.0 dBW	ND	005E46 19N34	300 km	429.0000 kHz	
50512 ADD	ALG	INSALAH	002E31 27N15	AL RC INS	0000-2400	100HA1A	X 23.0 dBW	ND	002E31 27N15	300 km	420.0000 kHz	
50511 ADD	ALG	JIJEL	005E52 36N48	AL RC DJI	0000-2400	100HA1A	X 17.0 dBW	ND	005E52 36N48	100 km	415.0000 kHz	
50517 ADD	ALG	MASCARA	000E11 35N13	AL RC MSC	0000-2400	100HA1A	X 17.0 dBW	ND	000E11 35N13	100 km	418.0000 kHz	
50507 ADD	ALG	ORAN ES SENIA	000W38 35N39	AL RC ON	0000-2400	100HA1A	X 17.0 dBW	ND	000W38 35N39	100 km	432.0000 kHz	
50508 ADD	ALG	ORAN ES SENIA	000W38 35N39	AL RC OLN	0000-2400	100HA1A	X 26.0 dBW	ND	000W38 35N39	300 km	416.0000 kHz	
50504 ADD	ALG	OUARGLA	005E25 31N56	AL RC ORG	0000-2400	100HA1A	X 23.0 dBW	ND	005E25 31N56	300 km	421.0000 kHz	
50503 ADD	ALG	SETIF	005E25 36N36	AL RC STF	0000-2400	100HA1A	X 17.0 dBW	ND	005E25 36N36	100 km	429.0000 kHz	
50532 ADD	ALG	TAMANRASSET	005E25 22N48	AL RC TAM	0000-2400	100HA1A	X 23.0 dBW	ND	005E25 22N48	300 km	424.0000 kHz	
50531 ADD	ALG	TEBESSA	008E03 35N27	AL RC TBS	0000-2400	100HA1A	X 17.0 dBW	ND	008E03 35N27	100 km	422.0000 kHz	
50510 ADD	ALG	TIARET	001E28 35N21	AL RC TRT	0000-2400	100HA1A	X 17.0 dBW	ND	001E28 35N21	100 km	420.0000 kHz	
50536 ADD	ALG	TIMIMOUN	000E17 29N14	AL RC TMM	0000-2400	100HA1A	X 17.0 dBW	ND	000E17 29N14	100 km	422.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50527 ADD	ALG	TINDOUF	008W10 27N42	AL RC TND	0000-2400	100HA1A	X	17.0 dBW	ND	008W10 27N42	200 km	427.0000 kHz	
50537 ADD	ALG	TLEMCEN	001W21 35N02	AL RC TLM	0000-2400	100HA1A	X	23.0 dBW	ND	001W21 35N02	300 km	422.0000 kHz	
50515 ADD	ALG	TOUGGOURT	006E05 33N03	AL RC TGT	0000-2400	100HA1A	X	17.0 dBW	ND	006E05 33N03	100 km	416.0000 kHz	

BEL

Belgique
Belgium
Bélgica

50619 ADD	BEL	ANTWERPEN	004E24 51N11	AL RC WW	0000-2400	2K10A2A	Y	14.0 dBW	ND	004E24 51N11	46 km	430.0000 kHz	
50618 ADD	BEL	BRUXELLES-GRINBERGEN	004E23 50N57	AL RC	0000-2400	2K10A2A	Y	14.0 dBW	ND	004E23 50N57	46 km	424.0000 kHz	
50620 ADD	BEL	ST-TRUIDEN	005E11 50N47	AL RC ST	0000-2400	2K10A2A	Y	14.0 dBW	ND	005E11 50N47	46 km	435.0000 kHz	

BOT

Botswana (République du)
Botswana (Republic of)
Botswana (República de)

50569 ADD	BOT	GABARONE	025E55 24S41	AL RC GR	0000-2400	2K10A2A	Y	23.0 dBW	ND	025E55 24S41	240 km	415.0000 kHz	
50570 ADD	BOT	GABARONE	025E55 24S41	AL RC GR	0000-2400	100HNON	X	23.0 dBW	ND	025E55 24S41	240 km	415.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
BUL				**Bulgarie (République populaire de) Bulgaria (People's Republic of) Bulgaria (República Popular de)**									
50479 MOD	BUL	SLIVAN	026E12 42N35	AL RC SV	0000-2400	100HA1A	Y	30.0 dBW	ND	026E12 42N35	100 km	526.0000 kHz	
CNR				**Canaries (Iles) Canary (Islands) Canarias (Islas)**									
50249 MOD	CNR E	FUERTEVENTURA	013W52 28N27	AL RC FT	0000-2400	2K10A2A	Y	23.0 dBW	ND	013W52 28N27	111 km	258.0000 kHz	
50247 MOD	CNR E	LAS PALMAS	015W24 27N58	AL RC GD	0000-2400	2K10A2A	Y	31.8 dBW	ND	015W24 27N58	185 km	278.0000 kHz	
50234 MOD	CNR E	TENERIFE	016W22 28N29	AL RC FP	0000-2400	2K10A2A	Y	17.0 dBW	ND	016W22 28N29	46 km	243.0000 kHz	
50235 MOD	CNR E	TENERIFE NORTE	016W15 28N27	AL RC TX	0000-2400	2K10A2A	Y	17.0 dBW	ND	016W15 28N27	46 km	265.0000 kHz	95
CPV				**Cap-Vert (République du) Cape Verde (Republic of) Cabo Verde (República de)**									
50723 ICAO	CPV	FOGO	024W29 14N53	AL RC SFE	0000-2400			20.0 dBW	ND	024W29 14N53	93 km	416.0000 kHz	
50722 ICAO	CPV	S. ANTAO	025W06 17N22	AL RC ANT	0000-2400			20.0 dBW	ND	025W06 17N22	93 km	422.0000 kHz	
50721 ICAO	CPV	SAL	022W54 16N42	AL RC SAL	0000-2400			30.0 dBW	ND	022W54 16N42	650 km	430.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
D			**Allemagne ((République fédérale d') Germany (Federal Republic of) Alemania (República Federal de)**							
50440 MOD	D	NUESTER TELGTE 007E46 51N57	AL RC	0000-2400	2K00A2A	Y 20.0 dBW	ND	007E46 51N57 47 km		1241
DDR			**République démocratique allemande German Democratic Republic República Democrática Alemana**							
50656 ADD	DDR	BARNEWITZ 012E37 52N29	AL RC TU	0000-2400	2K10A2A	Y 20.0 dBW	ND	012E37 52N29 75 km	303.0000 kHz	
50658 ADD	DDR	BRONKOW 013E58 51N40	AL RC H	0000-2400	2K10A2A	Y 17.0 dBW	ND	013E58 51N40 50 km	295.0000 kHz	
50647 ADD	DDR	COTTBUS 013E32 52N22	AL RC MR	0000-2400	2K10A2A	Y 20.0 dBW	ND	013E32 52N22 80 km	506.0000 kHz	
50645 ADD	DDR	GROS KREUTZ 012E46 52N24	AL RC KN	0000-2400	2K10A2A	Y 17.0 dBW	ND	012E46 52N24 40 km	516.0000 kHz	
50648 ADD	DDR	HAMMERSTEDT 011E29 50N57	AL RC YS	0000-2400	2K10A2A	Y 17.0 dBW	ND	011E29 50N57 40 km	433.0000 kHz	
50652 ADD	DDR	JAKOBSHAGEN 013E34 53N10	AL RC U	0000-2400	2K10A2A	Y 15.0 dBW	ND	013E34 53N10 30 km	315.0000 kHz	
50651 ADD	DDR	KLIX 014E30 51N16	AL RC HN	0000-2400	2K10A2A	Y 17.0 dBW	ND	014E30 51N16 50 km	418.0000 kHz	
50650 ADD	DDR	KONIGSBERG 012E27 53N05	AL RC GJ	0000-2400	2K10A2A	Y 20.0 dBW	ND	012E27 53N05 80 km	421.0000 kHz	
50657 ADD	DDR	LANDSBERG 011E42 52N30	AL RC ZW	0000-2400	2K10A2A	Y 20.0 dBW	ND	011E42 52N30 75 km	300.0000 kHz	
50644 ADD	DDR	LEIPZIG-MOCKAU 012E17 51N26	AL RC K	0000-2400	2K10A2A	Y 17.0 dBW	ND	012E17 51N26 40 km	521.5000 kHz	
50655 ADD	DDR	LEIPZIG-MOCKAU 012E17 51N26	AL RC B	0000-2400	2K10A2A	Y 17.0 dBW	ND	012E17 51N26 40 km	308.5000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50659 ADD	DDR	NEUHAUSEN	013E28 50N41	AL RC OP	0000-2400	2K10A2A	Y	20.0 dBW	ND	013E28 50N41	100 km	285.0000 kHz	
50646 ADD	DDR	RIESA	013E17 51N18	AL RC OZ	0000-2400	2K10A2A	Y	20.0 dBW	ND	013E17 51N18	80 km	510.0000 kHz	
50649 ADD	DDR	WORMLAGE	013E54 51N37	AL RC K	0000-2400	2K10A2A	Y	17.0 dBW	ND	013E54 51N37	40 km	427.0000 kHz	
50653 ADD	DDR	ZELLENDORF	013E03 51N52	AL RC BM	0000-2400	2K10A2A	Y	20.0 dBW	ND	013E03 51N52	100 km	313.0000 kHz	
50654 ADD	DDR	ZWICKAU	012E30 50N43	AL RC F	0000-2400	2K10A2A	Y	17.0 dBW	ND	012E30 50N43	40 km	309.5000 kHz	

DNK

Danemark
Denmark
Dinamarca

50226 MOD	DNK	HERNING	009E08 56N10	AL RC	0000-2400	800HA2A	Y	17.0 dBW	ND	009E08 56N10	50 km		42

E

Espagne
Spain
España

50243 MOD	E	REUS	001E09 41N09	AL RC RES	0000-2400	2K10A2A	Y	24.8 dBW	ND	001E09 41N09	93 km	272.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
EGY					**Egypte (République arabe d') Egypt (Arab Republic of) Egipto (República Árabe de)**					
50669 ICAO	EGY	EL DABAA 028E27 31N02	AL RC DBA	0000-2400	2K04A2AAN	Y 23.0 dBW	ND	028E27 31N02 370 km	415.0000 kHz	
F					**France Francia**					
50368 MOD	F	AIX LES MILLES 005E22 43N31	AL RC ALM	0000-2400	100HA1A	X 13.9 dBW	ND	005E22 43N31 46 km	445.0000 kHz	462
50365 SUP	F	BEAUVAIS 002E06 49N27	AL RC	0000-2400	100HA1A	X 16.9 dBW	ND	002E06 49N27 92 km		
50327 MOD	F	BELFORT FONTAINE 007E01 47N39	AL RC BLT	0000-2400	100HA1AAN	X 14.0 dBW	ND	007E01 47N39 46 km		149
50378 MOD	F	BITCHE 007E30 49N02	AL RC BH	0000-2400	100HA1A	X 16.9 dBW	ND	007E30 49N02 92 km	486.0000 kHz	462
50328 MOD	F	BIVILLE 001W49 49N37	AL RC BLL	0000-2400	100HA1AAN	X 14.0 dBW	ND	001W49 49N37 46 km		149
50760 ADD	F	BOURGES 002E23 47N04	AL RC BOS	0000-2400	100HA1AAN	X 14.0 dBW	ND	002E23 47N04 46 km	275.0000 kHz	
50761 ADD	F	CASTETS 001W09 43N35	AL RC CTS	0000-2400	100HA1AAN	X 13.9 dBW	ND	001W09 43N35 46 km		149
50370 MOD	F	DAMBLAIN 005E39 48N05	AL RC DBN	0000-2400	100HA1A	X 16.9 dBW	ND	005E39 48N05 92 km	452.0000 kHz	462
50374 MOD	F	DIEUZE 006E45 48N47	AL RC DU	0000-2400	100HA1A	X 13.9 dBW	ND	006E45 48N47 46 km	469.0000 kHz	462
50366 MOD	F	GRENOBLE 005E52 45N13	AL RC GR	0000-2400	100HA1A	X 13.9 dBW	ND	005E52 45N13 46 km	438.0000 kHz	462
50762 ADD	F	LAON COUVRON 003E33 49N38	AL RC	0000-2400	100HA1AAN	X 13.9 dBW	ND	003E33 49N38 46 km		149

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50379 SUP	F	LES MUREAUX 001E57 49N00	AL RC LMX	0000-2400	100HA1A	X 13.9 dBW	ND	001E57 49N00 46 km	510.5000 kHz	
50373 MOD	F	LURE 006E32 47N42	AL RC LRE	0000-2400	100HA1A	X 16.9 dBW	ND	006E32 47N42 96 km	465.0000 kHz	462
50367 MOD	F	MOURMELON 004E23 49N07	AL RC MML	0000-2400	100HA1A	X 13.9 dBW	ND	004E23 49N07 46 km	440.0000 kHz	462
50377 MOD	F	S SYMPHORIEN 004E56 45N39	AL RC SC	0000-2400	100HA1A	X 13.9 dBW	ND	004E56 45N39 46 km	478.0000 kHz	462
50372 MOD	F	SISSONNE 003E58 49N39	AL RC SIN	0000-2400	100HA1A	X 13.9 dBW	ND	003E58 49N39 46 km	463.0000 kHz	462
50369 MOD	F	SUIPPES 004E38 49N13	AL RC SU	0000-2400	100HA1A	X 13.9 dBW	ND	004E38 49N13 46 km	446.0000 kHz	462
50343 MOD	F	TARBES RICAUD 000E17 43N09	AL RC UN	0000-2400	100HA1AAN	X 14.0 dBW	ND	000E17 43N09 46 km	268.0000 kHz	
50376 MOD	F	TOUL ROSIERES 005E53 48N41	AL RC TUL	0000-2400	100HA1A	X 18.7 dBW	ND	005E53 48N41 139 km	477.0000 kHz	462
50375 MOD	F	USSEL THALAMY 002E25 45N33	AL RC USL	0000-2400	100HA1A	X 16.9 dBW	ND	002E25 45N33 92 km	475.0000 kHz	462
50371 MOD	F	VALDAHON 006E20 47N13	AL RC VH	0000-2400	100HA1A	X 13.9 dBW	ND	006E20 47N13 46 km	459.0000 kHz	462

GAB

Gabonaise (République)
Gabonese Republic
Gabonesa (República)

50622 ADD	GAB	BITAM 011E37 02N05	AL RC IM	0000-2400	100HA1A	X 20.0 dBW	ND	011E37 02N05 140 km	422.0000 kHz	
50623 ADD	GAB	LAMBARENE 010E14 00S43	AL RC LB	0000-2400	100HA1A	X 25.0 dBW	ND	010E14 00S43 50 km	430.0000 kHz	
50625 ADD	GAB	LASTOURVILLE 012E43 00S50	AL RC LV	0000-2400	100HA1A	X 25.0 dBW	ND	012E43 00S50 140 km	510.0000 kHz	
50624 ADD	GAB	LIBREVILLE 009E26 00N24	AL RC LI	0000-2400	100HA1A	X 30.0 dBW	ND	009E26 00N24 500 km	524.0000 kHz	
50621 ADD	GAB	MOUILA 010E52 01S49	AL RC ML	0000-2400	100HA1A	X 25.0 dBW	ND	010E52 01S49 140 km	418.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
GUI				**Guinée (République de) Guinea (Republic of) Guinea (República de)**						
50674 INCPL	GUI	KAMSAR 015W36 11N40	AL	0000-2400		20.0 dBW	ND	015W36 11N40 km	2122.0000 kHz	
50675 INCPL	GUI	KONAKRY 013W37 09N30	AL	0000-2400		23.0 dBW	ND	013W37 09N30 km	2125.0000 kHz	
50676 INCPL	GUI	KONAKRY 013W37 09N30	AL	0000-2400		0.0 dBW	ND	013W37 09N30 km	1637.5000 kHz	
50677 INCPL	GUI	KONAKRY 013W37 09N30	AL	0000-2400		30.0 dBW	ND	013W37 09N30 km	484.0000 kHz	
IRL				**Irlande Ireland Irlanda**						
50466 MOD	IRL	PLATFORM 3 011W00 53N00	AL RC UY	0000-2400	2K14A2AAN Y	14.0 dBW	ND	011W00 53N00 45 km		117
LBY				**Libye (Jamahiriya arabe libyenne populaire et socialiste) Libya (Socialist People's Libyan Arab Jamahiriya) Libia (Jamahiriya Árabe Libia Popular y Socialista)**						
50671 ICAO	LBY	HAMADA 012E50 29N32	AL RC GW	0000-2400	2K04A2AAN Y	23.0 dBW	ND	012E50 29N32 370 km	415.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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MAU

Maurice
Mauritius
Mauricio

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50561 MOD	MAU	AGALEGA N ISLAND 056E36 10S22	AL RC AGG	0400-1100	1K02A2A	Y 23.0 dBW 6.0 dB	ND	056E36 10S22 450 km	399.0000 kHz	
50562 MOD	MAU	RAPHAEL ISLAND 059E33 16S26	AL RC BDN	0400-1100	1K02A2A	Y 14.0 dBW 6.0 dB	ND	059E33 16S26 200 km	360.0000 kHz	

MDG

Madagascar (République démocratique de)
Madagascar (Democratic Republic of)
Madagascar (República Democrática de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50548 MOD	MDG	AMBATOMAINTY 045E40 17S42	AL RC AM	0300-1500	100HA1AAN	X 25.0 dBW	ND	045E40 17S42 90 km	427.0000 kHz	
50547 MOD	MDG	ANKAVANDRA 045E17 18S48	AL RC AV	0300-1500	100HA1AAN	X 25.0 dBW	ND	045E17 18S48 90 km	517.0000 kHz	
50545 MOD	MDG	ANTSALOVA 044E37 18S42	AL RC AL	0300-1500	100HA1AAN	X 25.0 dBW	ND	044E37 18S42 90 km	433.0000 kHz	
50541 MOD	MDG	BEALANANA 048E42 14S33	AL RC BL	0300-1500	100HA1AAN	X 25.0 dBW	ND	048E42 14S33 90 km	420.0000 kHz	
50544 MOD	MDG	BEFANDRIANA 048E29 15S12	AL RC BF	0300-1500	100HA1AAN	X 25.0 dBW	ND	048E29 15S12 90 km	434.0000 kHz	
50540 MOD	MDG	BESALAMPY 044E29 16S45	AL RC BP	0300-1500	100HA1AAN	X 25.0 dBW	ND	044E29 16S45 90 km	417.0000 kHz	
50553 MOD	MDG	IHOSY 046E10 22S24	AL RC IY	0300-1500	100HA1AAN	X 25.0 dBW	ND	046E10 22S24 90 km	419.0000 kHz	
50551 MOD	MDG	MALAIMBANDY 045E33 20S21	AL RC ML	0300-1500	100HA1AAN	X 25.0 dBW	ND	045E33 20S21 90 km	430.0000 kHz	
50542 MOD	MDG	MANANARA 049E46 16S10	AL RC MN	0300-1500	100HA1AAN	X 25.0 dBW	ND	049E46 16S10 90 km	429.0000 kHz	
50546 MOD	MDG	MANDABE 044E57 21S02	AL RC MB	0300-1500	100HA1AAN	X 25.0 dBW	ND	044E57 21S02 90 km	428.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50543 MOD	MDG	MANDRITSARA 048E50 15S50	AL RC MR	0300-1500	100HA1AAN	X 25.0 dBW	ND	048E50 15S50 90 km	415.0000 kHz	
50552 MOD	MDG	MANJA 044E19 21S25	AL RC MJ	0300-1500	100HA1AAN	X 25.0 dBW	ND	044E19 21S25 90 km	525.0000 kHz	
50549 MOD	MDG	MORAFENOBE 045E55 17S51	AL RC MF	0300-1500	100HA1AAN	X 25.0 dBW	ND	045E55 17S51 90 km	506.0000 kHz	
50550 MOD	MDG	TAMBOHORANO 043E58 17S29	AL RC TB	0300-1500	100HA1AAN	X 25.0 dBW	ND	043E56 17S20 90 km	422.0000 kHz	

MLT

Malte (République de)
Malta (Republic of)
Malta (República de)

50661 ADD	MLT	LUCA 014E32 35N49	AL RC	0000-2400	1K00N0N	X 31.5 dBW	ND	014E32 35N49 300 km	400 kHz	

MRC

Maroc (Royaume du)
Morocco (Kingdom of)
Marruecos (Reino de)

50283 MOD	MRC	CASABLANCA NOUASSER 007W33 32N17	AL RC NSR	0000-2400	2K10A2A	Y 14.0 dBW	ND	007W33 32N17 100 km	435.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
OMA					**Oman (Sultanat d') Oman (Sultanate of) Omán (Sultanía de)**								
50559 SUP	OMA	MUSCAT	058E30 23N37	AL RC MS	0000-2400	304HF1BCN	X	20.0 dBW	ND	058E30 23N37	150 km		
50560 SUP	OMA	MUSCAT	058E30 23N37	AL RC MCT	0000-2400	304HF1BCN	X	20.0 dBW	ND	058E30 23N37	150 km	525.0000 kHz	
50558 SUP	OMA	SALALAH	054E06 17N01	AL RC SL	0000-2400	304HF1BCN	X	20.0 dBW	ND	054E06 17N01	150 km	449.0000 kHz	
POL					**Pologne (République populaire de) Poland (People's Republic of) Polonia (República Popular de)**								
50572 ADD	POL	BELCHATOW	019E20 51N22	AL RC H	0000-2400	800HA2AAN	Y	18.0 dBW	ND	019E20 51N22	75 km	521.0000 kHz	
50573 ADD	POL	CHRCYNNO	020E50 52N30	AL RC CHM	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	020E50 52N30	95 km	419.5010 kHz	
50574 ADD	POL	CIECHANOW	020E38 52N51	AL RC CSK	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	020E38 52N51	75 km	427.5010 kHz	
50575 ADD	POL	CZERWIENSK	015E25 52N02	AL RC C	0000-2400	800HA2AAN	Y	18.0 dBW	ND	015E25 52N02	80 km	421.0000 kHz	
50576 ADD	POL	ELBLAG	019E25 54N08	AL RC EBG	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	019E25 54N08	95 km	514.5010 kHz	
50577 ADD	POL	GRUDZIADZ	018E45 53N28	AL RC M	0000-2400	800HA2AAN	Y	17.0 dBW	ND	018E45 53N28	65 km	422.0000 kHz	
50578 ADD	POL	KETRZYN	021E25 54N02	AL RC AL	0000-2400	800HA2AAN	Y	20.0 dBW	ND	021E25 54N02	100 km	433.0000 kHz	
50579 ADD	POL	KRAKOW	020E12 50N05	AL RC KPB	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	020E12 50N05	95 km	522.5010 kHz	
50580 ADD	POL	KROSNO	021E44 49N41	AL RC KMO	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	021E44 49N41	130 km	434.5010 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50581 ADD	POL	MANIECZKI	016E56 52N07	AL RC EG	0000-2400	800HA2AAN	Y	22.0 dBW	ND	016E56 52N07	150 km	511.0000 kHz	
50582 ADD	POL	MOSTKOWO	015E03 53N00	AL RC M	0000-2400	800HA2AAN	Y	18.0 dBW	ND	015E03 53N00	75 km	525.0000 kHz	
50583 ADD	POL	NOWY SACZ	020E38 49N45	AL RC NSL	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	020E38 49N45	95 km	514.5010 kHz	
50584 ADD	POL	OSIELCINY	018E43 52N38	AL RC W	0000-2400	800HA2AAN	Y	18.0 dBW	ND	018E43 52N38	75 km	516.0000 kHz	
50585 ADD	POL	POZNAN	017E02 52N56	AL RC PAN	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	017E02 52N56	75 km	512.5010 kHz	
50586 ADD	POL	POZNAN LAWICA	016E57 52N24	AL RC POZ	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	016E57 52N24	95 km	429.5010 kHz	
50587 ADD	POL	RADOM	021E06 51N30	AL RC O	0000-2400	800HA2AAN	Y	15.0 dBW	ND	021E06 51N30	55 km	416.0000 kHz	
50588 ADD	POL	REPLINO	016E56 52N24	AL RC M	0000-2400	800HA2AAN	Y	17.0 dBW	ND	016E56 52N24	70 km	520.0000 kHz	
50589 ADD	POL	RYBNIK	018E38 50N04	AL RC RGE	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	018E38 50N04	95 km	426.5010 kHz	
50590 ADD	POL	SLUPSK	017E05 54N28	AL RC SPK	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	017E05 54N28	95 km	512.5010 kHz	
50591 ADD	POL	STALOWA WOLA	022E00 50N38	AL RC SWT	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	022E00 50N38	95 km	417.5010 kHz	
50592 ADD	POL	STRZELIN	016E55 51N18	AL RC AK	0000-2400	800HA2AAN	Y	20.0 dBW	ND	016E55 51N18	100 km	435.0000 kHz	
50593 ADD	POL	WAPNICA	015E28 53N17	AL RC N	0000-2400	800HA2AAN	Y	16.0 dBW	ND	015E28 53N17	55 km	513.0000 kHz	
50594 ADD	POL	WARSZAWA	021E06 52N13	AL RC WGC	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	021E06 52N13	75 km	419.5010 kHz	
50595 ADD	POL	WROCLAW	017E00 51N13	AL RC WMG	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	017E00 51N13	75 km	419.5010 kHz	
50596 ADD	POL	ZAMOSC	023E12 50N42	AL RC ZME	0000-2400	1K00H2AAN	Y	20.0 dBW	ND	023E12 50N42	75 km	512.5010 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
QAT				**Qatar (Etat du) Qatar (State of) Qatar (Estado de)**								
50626	QAT	DOHA		AL RC	0000-2400	2K10A2A	Y 48.0 dBW	ND	051E34 25N16	800 km	521.0000 kHz	
ADD			051E34 25N16									
50627	QAT	DOHA		AL RC	0000-2400	2K10A2A	Y 48.0 dBW	ND	051E34 25N16	800 km	432.0000 kHz	
ADD			051E34 25N16									
ROU				**Roumanie (République socialiste de) Romania (Socialist Republic of) Rumania (República Socialista de)**								
50724	ROU	BACAU		AL RC	0000-2400	2K14A2A	Y 26.0 dBW	ND	026E54 46N31	225 km	426.0000 kHz	
ADD			026E54 46N31	BTE								
50725	ROU	BACAU		AL RC	0000-2400	2K14A2A	Y 26.0 dBW	ND	026E54 46N31	93 km		
ADD			026E54 46N31	BC								
50726	ROU	BACAU		AL RC	0000-2400	2K14A2A	Y 26.0 dBW	ND	026E54 46N31	93 km	520.0000 kHz	
ADD			026E54 46N31	B								
50727	ROU	BAIA MARE		AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	023E26 47N40	46 km	266.0000 kHz	
ADD			023E26 47N40	M								
50728	ROU	BRASOV		AL RC	0000-2400	2K14A2A	Y 30.0 dBW	ND	025E41 45N43	185 km	290.0000 kHz	
ADD			025E41 45N43	BRV								
50729	ROU	BUCURESTI/BANEASA		AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	026E02 44N29	46 km	521.0000 kHz	
ADD			026E02 44N29	BSW								
50730	ROU	BUCURESTI/BANEASA		AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	026E02 44N29	46 km	428.0000 kHz	
ADD			026E02 44N29	B								
50731	ROU	BUCURESTI/BANEASA		AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	026E02 44N29	46 km	300.0000 kHz	
ADD			026E02 44N29	A								
50732	ROU	BUCURESTI/BANEASA		AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	026E02 44N29	46 km	256.0000 kHz	
ADD			026E02 44N29	BSE								
50733	ROU	BUCURESTI/OTOPENI		AL RC	0000-2400	2K14A2A	Y 26.0 dBW	ND	025E59 44N33	46 km	267.5000 kHz	
ADD			025E59 44N33	OPW								

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50734 ADD	ROU	CLUJ-NAPOCA 023E37 46N47	AL RC CLJ	0000-2400	2K14A2A	Y 30.0 dBW	ND	023E37 46N47 148 km	284.0000 kHz	
50735 ADD	ROU	CLUJ-NAPOCA 023E37 46N47	AL RC I	0000-2400	2K14A2A	Y 23.0 dBW	ND	023E37 46N47 46 km	300.0000 kHz	
50736 ADD	ROU	CLUJ-NAPOCA 023E37 46N47	AL RC CFA	0000-2400	2K14A2A	Y 26.0 dBW	ND	023E37 46N47 225 km	424.0000 kHz	
50737 ADD	ROU	CLUJ-NAPOCA 023E37 46N47	AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	023E37 46N47 46 km		
50738 ADD	ROU	CLUJ-NAPOCA 023E37 46N47	AL RC	0000-2400	2K14A2A	Y 30.0 dBW	ND	023E37 46N47 148 km		
50739 ADD	ROU	CONSTANTA 028E29 44N23	AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	028E29 44N23 46 km		
50740 ADD	ROU	CONSTANTA 028E29 44N23	AL RC CKN	0000-2400	2K14A2A	Y 26.0 dBW	ND	028E29 44N23 225 km	510.0000 kHz	
50741 ADD	ROU	CONSTANTA 028E29 44N23	AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	028E29 44N23 46 km		
50742 ADD	ROU	CONSTANTA 028E29 44N23	AL RC	0000-2400	2K14A2A	Y 30.0 dBW	ND	028E29 44N23 148 km		
50743 ADD	ROU	CRAIOVA 023E53 44N19	AL RC CVA	0000-2400	2K14A2A	Y 26.0 dBW	ND	023E53 44N19 225 km	432.0000 kHz	
50744 ADD	ROU	CRAIOVA 023E53 44N19	AL RC E	0000-2400	2K14A2A	Y 26.0 dBW	ND	023E53 44N19 93 km		
50745 ADD	ROU	CRAIOVA 023E53 44N19	AL RC EA	0000-2400	2K14A2A	Y 26.0 dBW	ND	023E53 44N19 93 km	310.0000 kHz	
50746 ADD	ROU	FOCSANI 027E12 45N41	AL RC	0000-2400	2K14A2A	Y 26.0 dBW	ND	027E12 45N41 225 km		
50747 ADD	ROU	GALATI 027E56 45N25	AL RC GLT	0000-2400	2K14A2A	Y 30.0 dBW	ND	027E56 45N25 148 km	413.5000 kHz	
50748 ADD	ROU	IASI 027E35 47N14	AL RC IAS	0000-2400	2K14A2A	Y 26.0 dBW	ND	027E35 47N14 93 km	284.0000 kHz	
50749 ADD	ROU	SATU MARE 022E52 47N38	AL RC	0000-2400	2K14A2A	Y 26.0 dBW	ND	022E52 47N38 93 km		
50750 ADD	ROU	SATU MARE 022E52 47N38	AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	022E52 47N38 46 km		
50751 ADD	ROU	SUCEAVA 026E22 47N42	AL RC	0000-2400	2K14A2A	Y 23.0 dBW	ND	026E22 47N42 46 km		

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50752 ADD	ROU	SUCEAVA	026E22 47N42	AL RC	0000-2400	2K14A2A	Y	26.0 dBW	ND	026E22 47N42	93 km		
50753 ADD	ROU	TANDAREI	027E40 44N39	AL RC TND	0000-2400	2K14A2A	Y	30.0 dBW	ND	027E40 44N39	185 km	304.0000 kHz	
50754 ADD	ROU	TIMISOARA	021E14 45N50	AL RC	0000-2400	2K14A2A	Y	26.0 dBW	ND	021E14 45N50	93 km		
50755 ADD	ROU	TIMISOARA	021E14 45N50	AL RC S	0000-2400	2K14A2A	Y	23.0 dBW	ND	021E14 45N50	46 km		
50756 ADD	ROU	TIMISOARA	021E14 45N50	AL RC	0000-2400	2K14A2A	Y	23.0 dBW	ND	021E14 45N50	46 km		
50757 ADD	ROU	TULCEA	028E42 45N07	AL RC	0000-2400	2K14A2A	Y	26.0 dBW	ND	028E42 45N07	93 km		
50758 ADD	ROU	TULCEA	028E42 45N07	AL RC TLC	0000-2400	2K14A2A	Y	30.0 dBW	ND	028E42 45N07	185 km	286.0000 kHz	
50759 ADD	ROU	TULCEA	028E42 45N07	AL RC C	0000-2400	2K14A2A	Y	23.0 dBW	ND	028E42 45N07	46 km		

SUI

Suisse (Confédération)
Switzerland (Confederation of)
Suiza (Confederación)

50033 MOD	SUI	SION	007E20 46N13	AL RC SIO	0000-2400	2K00A2A	Y	14.0 dBW	ND	007E20 46N13	46 km	523.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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TUN

Tunisie
Tunisia
Túnez

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50633 ADD	TUN	BIZERTE 009E48 37N15	AL RC	0000-2400	100HA2A	Y 24.8 dBW	ND	009E48 37N15 185 km	400.0000 kHz	
50634 ADD	TUN	CAP BLANC 009E50 37N20	AL RC	0000-2400	100HA2A	Y 20.0 dBW	ND	009E50 37N20 185 km	310.3000 kHz	
50628 ADD	TUN	CAP BON PHARE 011E03 37N04	AL RC	0000-2400	100HA1A	X 26.0 dBW	ND	011E03 37N04 322 km	370.0000 kHz	
50629 ADD	TUN	EL ATTAYA PHARE 011E18 34N44	AL RC	0000-2400	100HA2A	Y 26.0 dBW	ND	011E18 34N44 185 km	308.0000 kHz	
50635 ADD	TUN	EL BORMA 009E14 31N42	AL RC	0000-2400	100HA2A	Y 20.0 dBW	ND	009E14 31N42 185 km	405.0000 kHz	
50630 ADD	TUN	GABES AEROPHARE 010E06 33N53	AL RC	0000-2400	100HA1A	X 20.0 dBW	ND	010E06 33N53 185 km	267.0000 kHz	
50631 ADD	TUN	JERBA MELITA AEROPOR 010E45 33N52	AL RC	0000-2400	100HA2A	Y 17.0 dBW	ND	010E45 33N52 185 km	371.0000 kHz	
50636 ADD	TUN	KHARROUBA 009E49 37N17	AL RC	0000-2400	100HA2A	Y 17.0 dBW	ND	009E49 37N17 45 km	322.0000 kHz	
50637 ADD	TUN	M´SAKEN 010E37 35N43	AL RC	0000-2400	100HA2A	Y 17.0 dBW	ND	010E37 35N43 45 km	275.0000 kHz	
50638 ADD	TUN	MONASTIR SKANES 010E47 37N46	AL RC	0000-2400	100HA2A	Y 24.8 dBW	ND	010E47 37N46 90 km	359.0000 kHz	
50643 ADD	TUN	PLATE FORME ASTHART 011E17 36N17	AL RC	0000-2400	100HA2A	Y 14.0 dBW	ND	011E17 36N17 170 km	282.0000 kHz	
50639 ADD	TUN	SFAX EL MAOU 010E41 34N43	AL RC	0000-2400	100HA1A	X 13.0 dBW	ND	010E41 34N43 90 km	245.0000 kHz	
50640 ADD	TUN	SFAX VILLE 010E48 34N46	AL RC	0000-2400	100HA2A	Y 14.0 dBW	ND	010E48 34N46 90 km	316.0000 kHz	
50641 ADD	TUN	TOZEUR NAFTA 008E09 33N57	AL RC	0000-2400	100HA2A	Y 17.0 dBW	ND	008E09 33N57 45 km	375.0000 kHz	
50632 ADD	TUN	TUNIS CARTHAGE AEROP 010E19 36N49	AL RC	0000-2400	100HA2A	Y 30.0 dBW	ND	010E19 36N49 370 km	385.0000 kHz	1332

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
TUR						**Turquie Turkey Turquía**				
50672 ICAO	TUR	ERHAC 038E08 38N30	AL RC ERH	0000-2400	2K04A2AAN	Y 26.0 dBW	ND	038E08 38N30 140 km	420.0000 kHz	
50673 ICAO	TUR	ESKISEHIR 030E45 39N47	AL RC ESK	0000-2400	2K04A2AAN	Y 26.0 dBW	ND	030E45 39N47 140 km	420.0000 kHz	
UAE						**Emirats arabes unis United Arab Emirates Emiratos Árabes Unidos**				
50571 ADD	UAE	MUBARRAZ ISL 053E13 24N17	AL RC MUB	0000-2400	1K03A9X	Y 17.0 dBW	ND	053E13 24N17 100 km	520.0000 kHz	
URS						**Union des Républiques socialistes soviétiques Union of Soviet Socialist Republics Unión de Repúblicas Socialistas Soviéticas**				
50171 MOD	URS	MUKHRANI 044E34 41N55	AL RC DF	0000-2400	2K10A2AAN	Y 30.0 dBW	ND	044E34 41N55 150 km	520.0000 kHz	259

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
YUG				**Yougoslavie (République socialiste fédérative de) Yugoslavia (Socialist Federal Republic of) Yugoslavia (República Socialista Federativa de)**								
50300 MOD	YUG	RIJEKA 014E39 45N08	AL RC RI	0000-2400	2K10A2A	Y	19.0 dBW	ND	014E39 45N08	25 km	426.0000 kHz	325
ZAI				**Zaïre (République du) Zaire (Republic of) Zaire (República del)**								
50681 INCPL	ZAI	AKETI 023E50 02N42	AL RC AKT	0500-1600	A2A	Y	20.0 dBW	ND	023E50 02N42	km		1337
50683 INCPL	ZAI	BENI 029E28 00N35	AL RC BNI	0500-1600	A2A	Y	17.0 dBW	ND	029E28 00N35	km		1339
50682 INCPL	ZAI	BINGA 020E30 02N26	AL RC BIN	0500-1600	A2A	Y	17.0 dBW	ND	020E30 02N26	km		1338
50684 INCPL	ZAI	BOSONDJO 021E47 01N15	AL RC BSJ	0500-1600	A2A	Y	17.0 dBW	ND	021E47 01N15	km		1340
50679 INCPL	ZAI	DILOLO 022E21 10S43	AL DIL	0500-1600	A2A	Y	20.0 dBW	ND	022E21 10S43	km		1336
50680 INCPL	ZAI	FUNGURUME 026E19 10S32	AL FUN	0500-1600	A2A	Y	20.0 dBW	ND	026E19 10S32	km		1337
50685 INCPL	ZAI	IKELA 023E17 01S12	AL RC IKL	0500-1600	A2A	Y	17.0 dBW	ND	023E17 01S12	km		1341
50686 INCPL	ZAI	ILEBO 020E36 04S19	AL RC IBO	0500-1600	A2A	Y	20.0 dBW	ND	020E36 04S19	km		1342
50687 INCPL	ZAI	KABINDA 024E20 06S07	AL RC KBD	0500-1600	A2A	Y	17.0 dBW	ND	024E20 06S07	km		1341
50678 INCPL	ZAI	KANIAMAIKAS 024E03 07S42	AL RC KNM	-	A2A	Y	17.0 dBW	ND	024E03 07S42	km		1335
50688 INCPL	ZAI	KAPANGA 022E39 08S21	AL RC KAP	0500-1600	A2A	Y	17.0 dBW	ND	022E39 08S21	km		1343

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU AIM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50720 INCPL	ZAI	KILIBA		AL RC KLB	0500-1600	A2A	Y	17.0 dBW	ND		km		1344
50689 INCPL	ZAI	KODORO	020E20 01N17	AL RC KDR	0500-1600	A2A	Y	17.0 dBW	ND	020E20 01N17	km		1337
50690 INCPL	ZAI	KWILU-NGONGO	014E42 05S30	AL RC KWI	0500-1600	A2A	Y	20.0 dBW	ND	014E42 05S30	km		1335
50691 INCPL	ZAI	LIKASI	026E45 10S50	AL RC LKS	0500-1600	A2A	Y	20.0 dBW	ND	026E45 10S50	km		1335
50692 INCPL	ZAI	LUBERO	029E15 00S08	AL RC LBR	0500-1600	A2A	Y	20.0 dBW	ND	029E15 00S08	km		1338
50693 INCPL	ZAI	LUEBO	021E30 05S21	AL RC LBO	0500-1600	A2A	Y	17.0 dBW	ND	021E30 05S21	km		1340
50660 INCPL	ZAI	LUENA	025E45 09S28	AL RC LNA	0500-1600	A2A	Y	27.0 dBW	ND	025E45 09S28	km	425.0000 kHz	
50694 INCPL	ZAI	LUIZA	022E04 07S11	AL RC LZA	0500-1600	A2A	Y	20.0 dBW	ND	022E04 07S11	km		1344
50701 INCPL	ZAI	MOBA	029E44 07S06	AL	0500-1600	A2A	Y	17.0 dBW	ND	029E44 07S06	km		1345
50702 INCPL	ZAI	MONKOTO	020E39 01S36	AL RC	0500-1600	A2A	Y	17.0 dBW	ND	020E39 01S36	km		1335
50697 INCPL	ZAI	MWENE DITU	023E05 06S59	AL RC MDT	0500-1600	A2A	Y	20.0 dBW	ND	023E05 06S59	km		1341
50696 INCPL	ZAI	N'SANGI	015E19 05S36	AL RC SGI	0500-1600	A2A	Y	17.0 dBW	ND	015E19 05S36	km		1344
50695 INCPL	ZAI	NWADINGUSHA	027E12 10S45	AL RC MWA	0500-1600	A2A	Y	17.0 dBW	ND	027E12 10S45	km		1344
50698 INCPL	ZAI	PWETO	028E53 08S28	AL RC PTO	0500-1600	A2A	Y	17.0 dBW	ND	028E53 08S28	km		1335
50699 INCPL	ZAI	SANDOA	022E56 09S42	AL RC SDO	0500-1600	A2A	Y	20.0 dBW	ND	022E56 09S42	km		1346
50700 INCPL	ZAI	WATSA	021E33 03N00	AL RC WAT	0500-1600	A2A	Y	17.0 dBW	ND	021E33 03N00	km		1343
50703 INCPL	ZAI	YUKI	019E25 04S50	AL RC	0500-1600	A2A	Y	17.0 dBW	ND	019E25 04S50	km		1336

ANNEX 5

REMARKS

Supplied by the Administrations in relation to their requirements

116 MOD Requirement for aeronautical radiobeacons on board ship. Names and identification have not yet been assigned. The beacons could be located anywhere within the approximate area outlined on the accompanying map which is on the last page of this Annex.

117 MOD Requirement for aeronautical radiobeacons for use on oil rigs or platforms. The beacons could be located anywhere within the approximate area outlined on the accompanying map which is on the last page of this Annex.

1320 ADD a) Preferred frequency: 437 kHz.
b) Designation of emission: 304HF1B and 100HA1A.

1321 ADD a) Preferred frequency: 448 kHz.
b) Designation of emission: 304HF1B and 100HA1A.

1322 ADD a) Preferred frequency: 515 kHz.
b) Designation of emission: 304HF1B and 100HA1A.

1323 ADD Preferred frequency: 1 610 kHz.

1324 ADD Preferred frequency: 1 616 kHz.

1325 ADD Preferred frequency: 1 620 kHz.

1326 ADD a) Preferred frequency: 1 656 kHz.
b) Designation of emission: 2K99R3E and 2K70J3E.

1327 ADD a) Preferred frequency: 1 664 kHz.
b) Designation of emission: 2K99R3E and 2K70J3E.

1328 ADD a) Preferred frequency: 1 728 kHz.
b) Designation of emission: 2K99R3E and 2K70J3E.

1332 ADD Frequencies in use: 282 kHz, 295 kHz, 325 kHz, 340 kHz and 385 kHz.

1333 ADD Designation of emission: 100HA1A, 2K10A2A.

1334 ADD Designation of emission: 100HA1A, 2K10A2AAN.

1335 ADD Proposed frequency: 418 kHz.

1336 ADD Proposed frequency: 424 kHz.

1337 ADD Proposed frequency: 508 kHz.

1338 ADD Proposed frequency: 514 kHz.

1339 ADD Proposed frequency: 425 kHz.

1340 ADD Proposed frequency: 433 kHz.

1341 ADD Proposed frequency: 523 kHz.

1342 ADD Proposed frequency: 427 kHz.

1343 ADD Proposed frequency: 511 kHz.

1344 ADD Proposed frequency: 520 kHz.

1345 ADD Proposed frequency: 420 kHz.

1346 ADD Proposed frequency: 435 kHz.

1347 ADD Operational within coastal waters.

1301 SUP Frequency: 417 kHz.

1302 SUP Frequency: 429 kHz.

1303 SUP Frequency: 415 kHz.

1304 SUP Frequency: 434 kHz.

1305 SUP Frequency: 433 kHz.

1306 SUP Frequency: 428 kHz.

1307 SUP Frequency: 517 kHz.

1308 SUP Frequency: 427 kHz.

1309 Frequency: 506 kHz.
SUP

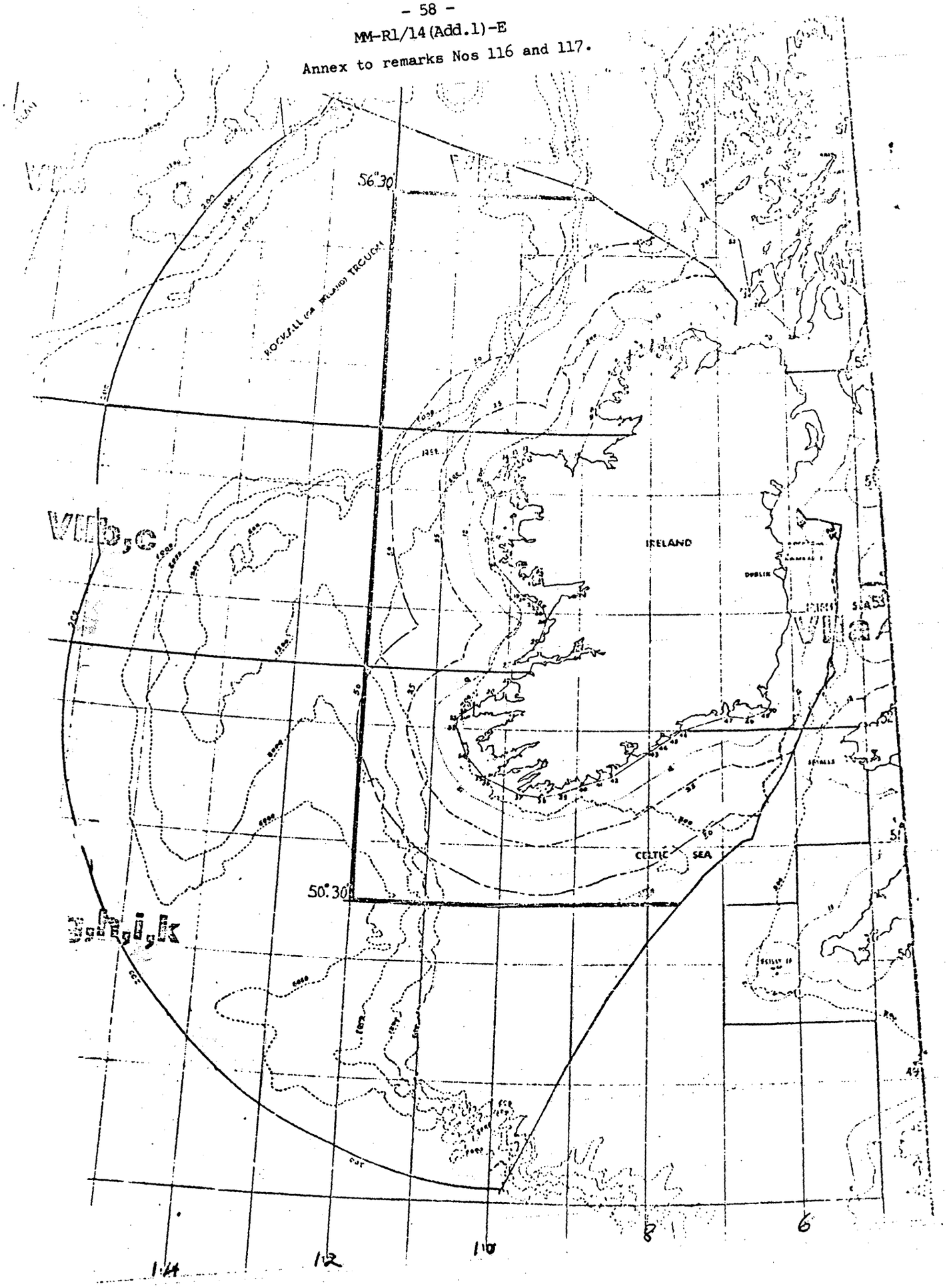
1310 Frequency: 422 kHz.
SUP

1311 Frequency: 430 kHz.
SUP

1312 Frequency: 525 kHz.
SUP

1313 Frequency: 419 kHz.
SUP

Annex to remarks Nos 116 and 117.



RÉGION 1

UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
CARR POUR LE SERVICE MOBILE MARITIME ET LE SERVICE DE RADIONAVIGATION AÉRONAUTIQUE DANS CERTAINES PARTIES DE LA BANDE DES ONDES HECTOMÉTRIQUES DANS LA RÉGION 1
GENÈVE, FÉVRIER/MARS 1985

Corrigendum 1 au
Document 14-F/E/S
4 mars 1985

COMMISSION 5
COMMITTEE 5
COMISIÓN 5

Remplacer la page 21 de l'annexe 4 du document 14 par la page ci-jointe.

Please replace page 21 of Annex 4 in Document 14 by the attached page

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Sustitúyase la página 21 del anexo 4 del documento 14 por la página adjunta.

Pour des raisons d'économie, ce document n'a été tiré qu'en un nombre restreint d'exemplaires. Les participants sont donc priés de bien vouloir apporter à la réunion leurs documents avec eux, car il n'y aura pas d'exemplaires supplémentaires disponibles.

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
****

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50120	HOL	THORN	005E50 51N11	AL RC THN	0000-2400	1K20A2AAN	Y	17.0 dBW	ND	005E50 51N11	50 km	514.0000 kHz	

I

Italie
Italy
Italia

50107	I	ALBENGA	008E13 44N03	AL RC ABN	0000-2400	2K04A2A	Y	23.9 dBW	ND	008E13 44N03	90 km	268.0000 kHz	
50108	I	FERRARA	011E37 44N49	AL RC FER	0000-2400	2K04A2A	Y	23.9 dBW	ND	011E37 44N49	90 km	285.0000 kHz	
50109	I	FORLI	011E55 44N15	AL RC FOR	0000-2400	2K04A2A	Y	20.0 dBW	ND	011E55 44N15	45 km	345.0000 kHz	
50110	I	PERETOLA	011E12 43N48	AL RC PRT	0000-2400	2K04A2A	Y	23.9 dBW	ND	011E12 43N48	90 km	261.0000 kHz	
50111	I	PIACENZA	009E43 44N55	AL RC PIA	0000-2400	2K04A2A	Y	24.0 dBW	ND	009E43 44N55	90 km		
50112	I	ROMA FIUMICINO	012E21 41N50	AL RC FE	0000-2400	2K04A2A	Y	20.0 dBW	ND	012E21 41N50	45 km		
50113	I	RONCHI LEGIONARI	013E22 45N50	AL RC RON	0000-2400	2K04A2A	Y	20.0 dBW	ND	013E22 45N50	45 km	354.0000 kHz	
50114	I	SORRENTO	014E20 40N35	AL RC SOR	0000-2400	2K04A2A	Y	23.9 dBW	ND	014E20 40N35	180 km	390.0000 kHz	
50115	I	VILLAFRANCA	010E47 45N19	AL RC VIL	0000-2400	2K04A2A	Y	24.0 dBW	ND	010E47 45N19	90 km	257.0000 kHz	

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 14-E
27 November 1984
Original : English
French
Spanish

PLENARY MEETING

Note by the Secretary-General

REPORT BY THE IFRB

TO THE REGIONAL ADMINISTRATIVE RADIO CONFERENCE

FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION

SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

At the request of the International Frequency Registration Board, I transmit the attached IFRB Report for the information of the Conference.

R.E. BUTLER
Secretary-General

Annex : 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

A N N E X

Report by the IFRB to the Regional Administrative Radio Conference for the maritime mobile service and the aeronautical radionavigation service in certain parts of the MF band in Region 1

On the basis of Resolution No. 704 of the WARC-MOB-83, the Administrative Council, in its Resolution No. 897, instructed the IFRB to invite the administrations of Region 1 to communicate their requirements for the maritime mobile service and the aeronautical radionavigation service using the information listed in the appropriate sections of Appendix 1 to the Radio Regulations.

2. The Board, in its Circular-letter No. 554 of 8 September 1983, requested the administrations of Region 1 to submit their requirements for the preparation of the Conference. These requirements concerned:

a) the maritime mobile service in the following bands:

415 - 435 kHz
435 - 526.5 kHz (except 495 - 505 kHz)
1 606.5 - 1 625 kHz
1 635 - 1 800 kHz and
2 045 - 2 160 kHz

b) the aeronautical radionavigation service in the following bands:

415 - 435 kHz
505 - 526.5 kHz.

Annexes 2 and 3 of the above circular-letter contained the form to be used when submitting to the IFRB the requirements for transmitting coast stations and aeronautical radiobeacons respectively.

3. The purpose of the present Report is to communicate to the Conference the information received in response to the above circular-letter, Annexes 2 and 4 to the present Report contain the lists of requirements for transmitting coast stations and aeronautical radiobeacons respectively, in the bands mentioned in paragraph 2 above. Both lists are arranged in country order and in alphabetical order of station names, and therein are included all those requirements which were found complete by 15 October 1984 according to the form of notice previously sent to the administrations. The incomplete requirement notices for which the Board receives the necessary complementary information before the Conference will be issued in a supplement to the present Report. Annexes 1 and 3 to the present Report contain explanation of the information included in the columns of the lists in Annexes 2 and 4 as well as the meaning of the symbols or abbreviations used in the column headings.

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4. The Board compiled the remarks or other information that the administrations supplied in relation with the requirements. These remarks are reproduced in Annex 5 for both coast stations and aeronautical radiobeacons. The serial number of the remarks serves as cross-reference to the remark column of the corresponding requirement in lists of Annexes 2 and 4.

5. Resolves 2.2 of Resolution No. 897 of the Administrative Council requests the Conference to "reassign replacement frequencies for stations of the maritime mobile service in accordance with resolves 2 of Resolution No. 38 of WARC-79" and resolves 2.3 of the same resolution of the Administrative Council invites the Conference, "when establishing the Plan for the maritime mobile service, to afford appropriate protection to frequency assignments to stations of other services to which the bands:

1 606.5 - 1 625 kHz
1 635 - 1 800 kHz and
2 045 - 2 160 kHz

are also allocated". The Board is currently preparing the lists of the above categories of assignments and will communicate them to the Conference in another Report.

Annexes: 1) Explanation of the information included in the columns of the list in Annex 2.

2) List of requirements for transmitting coast stations.

3) Explanation of the information included in the columns of the list in Annex 4.

4) List of requirements for aeronautical radiobeacons.

5) List of remarks.

Annex 1

Explanation of the symbols included in the list in Annex 2

IFRB NO.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the Administration submitting the requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmitting antenna in degrees and minutes.
CL.	Class of station, FC = Coast Station.
NAT.	Nature of service.
CALL-SIGN	Call sign to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
OP-MOD	Mode of operation: simplex or duplex.
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antenna, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antenna : ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area : the geographical coordinates of the center and value of the radius; In case of a service area defined by points : the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		AFS		**Sudafricaine (République) South Africa (Republic of) Sudafricana (República)**							
904	AFS	CAPE TOWN 018E43 33S41	FC CP ZSC	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	018E43 33S41	500 km	435.0000 kHz	36
905	AFS	CAPE TOWN 018E43 33S41	FC CP ZSC	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	018E43 33S41	500 km	418.0000 kHz	37
906	AFS	DURBAN 030E48 29S48	FC CP ZSD	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	030E48 29S48	500 km	432.0000 kHz	38
907	AFS	DURBAN 030E48 29S48	FC CP ZSD	0000-2400 SIMPLEX	100HA1AAN	X 36.9 dBW	ND	030E48 29S48	500 km	429.0000 kHz	39
		ALB		**Albanie (République populaire socialiste d') Albania (Socialist People's Republic of) Albania (República Popular Socialista de)**							
1610	ALB	DURRES PT RADIO 019E26 41N27	FC CP ZAD	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	019E26 41N27	200 km	460.0000 kHz	
1611	ALB	DURRES PT RADIO 019E26 41N27	FC CP ZAD	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	019E26 41N27	200 km	521.0000 kHz	
2263	ALB	DURRES PT RADIO 019E26 41N27	FC CP	0000-2400 DUPLEX	134HJ2BCN	X 30.0 dBW	ND	019E26 41N27	200 km	1600 kHz	1318
2264	ALB	DURRES PT RADIO 019E26 41N27	FC CP	0000-2400 DUPLEX	134HJ2BCN	X 30.0 dBW	ND	019E26 41N27	200 km	1600 kHz	1318
2265	ALB	DURRES PT RADIO 019E26 41N27	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	019E26 41N27	150 km	1700 kHz	1319
2266	ALB	DURRES PT RADIO 019E26 41N27	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	019E26 41N27	150 km	1700 kHz	1319
1608	ALB	VLORE PT RADIO 019E29 40N27	FC CP ZAV	0000-2400 SIMPLEX	100HA1AAN	X 20.0 dBW	ND	019E29 40N27	200 km	460.0000 kHz	
1609	ALB	VLORE PT RADIO 019E29 40N27	FC CP ZAV	0000-2400 SIMPLEX	100HA1AAN	X 20.0 dBW	ND	019E29 40N27	200 km	521.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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ARS

Arabie saoudite (Royaume d')
Saudi Arabia (Kingdom of)
Arabia Saudita (Reino de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1904	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	050E06 26N26 700 km	418.0000 kHz	
1905	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	050E06 26N26 700 km	432.0000 kHz	
1909	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 dBW	ND	050E06 26N26 700 km	500.0000 kHz	
1910	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 SIMPLEX	100HA1AAN	X 37.0 dBW	ND	050E06 26N26 700 km	512.0000 kHz	
1911	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 SIMPLEX	304HF1BCN	X 37.0 dBW	ND	050E06 26N26 700 km	518.0000 kHz	
1917	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	050E06 26N26 300 km	1780.0000 kHz	
1919	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	050E06 26N26 300 km	1825.0000 kHz	
1906	ARS	JEDDAHRADIO 039E10 21N23	FC CP HZH	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	039E10 21N23 700 km	435.0000 kHz	
1907	ARS	JEDDAHRADIO 039E10 21N23	FC CP HZH	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	039E10 21N23 700 km	416.0000 kHz	
1912	ARS	JEDDAHRADIO 039E10 21N23	FC CP HZH	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 dBW	ND	039E10 21N23 700 km	500.0000 kHz	
1913	ARS	JEDDAHRADIO 039E10 21N23	FC CP HZH	0000-2400 SIMPLEX	100HA1AAN	X 37.0 dBW	ND	039E10 21N23 700 km	512.0000 kHz	
1914	ARS	JEDDAHRADIO 039E10 21N23	FC CP HZH	0000-2400 SIMPLEX	304HF1BCN	X 37.0 dBW	ND	039E10 21N23 700 km	518.0000 kHz	
1918	ARS	JEDDAHRADIO 039E10 21N23	FC CP HZH	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	039E10 21N23 300 km	1726.0000 kHz	
1908	ARS	RAS TANURA RADIO 050E07 26N18	FC CV HZY	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	050E07 26N18 700 km	430.0000 kHz	
1915	ARS	RAS TANURA RADIO 050E07 26N18	FC CV HZY	0000-2400 SIMPLEX	2K10A2AAN	X 37.0 dBW	ND	050E07 26N18 700 km	500.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1916	ARS	RAS TANURA RADIO 050E07 26N18	FC CV HZY	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	050E07 26N18 700 km	521.0000 kHz	

ASC

Ascension
Ascensión

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
37	ASC G	ASCENSION 014W25 07S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	014W25 07S56 320 km	2000 kHz	328
38	ASC G	ASCENSION 014W25 07S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	014W25 07S56 320 km	2000 kHz	398
39	ASC G	ASCENSION 014W25 07S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	014W25 07S56 320 km	2000 kHz	396
40	ASC G	ASCENSION 014W25 07S56	FC CP ZBI	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	014W25 07S56 200 km	2000 kHz	395
41	ASC G	ASCENSION 014W25 07S56	FC CP ZBI	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	014W25 07S56 200 km	2000 kHz	395

AZR

Açores
Azores

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
603	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	028W38 38N32 900 km	487.0000 kHz	135
604	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	100HA1A	X 34.7 dBW	ND	028W38 38N32 1500 km	516.0000 kHz	136
1746	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	1K50F1B	X 34.7 dBW	ND	028W38 38N32 1500 km		1227
1747	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	1K50F1B	X 30.0 dBW	ND	028W38 38N32 900 km		1227
1748	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	1K50F1B	X 34.7 dBW	ND	028W38 38N32 1500 km		1227

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1749	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	1K50F1B	X 34.7 dBW	ND	028W38 38N32 1500 km		1227
1750	AZR POR	HORTA 028W38 38N32	FC CO CTH	0000-2400 DUPLEX	2K11H2B	X 34.7 dBW	ND	028W38 38N32 1500 km		1227
601	AZR POR	S MIGUEL 025W39 37N45	FC CP CUG	0000-2400 DUPLEX	100HA1AAN	X 27.0 dBW	ND	025W39 37N45 400 km	421.0000 kHz	133
602	AZR POR	S MIGUEL 025W39 37N45	FC CP CUG	0000-2400 DUPLEX	100HA1AAN	X 27.0 dBW	ND	025W39 37N45 400 km		134
605	AZR POR	S MIGUEL 025W39 37N45	FC CP CUG	0000-2400 DUPLEX	304HF1BCN	X 26.0 dBW	ND	025W39 37N45 400 km		
606	AZR POR	S MIGUEL 025W39 37N45	FC CP CUG 47	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	025W39 37N45 250 km	1664.9000 kHz	137
1745	AZR POR	S MIGUEL 025W39 37N45	FC CP CUG	0000-2400 DUPLEX	1K50F1B	X 26.0 dBW	ND	025W39 37N45 400 km		1230

BEL

Belgique
Belgium
Bélgica

1809	BEL	BRUGGE 003E15 51N12	FC CO OSB	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	003E15 51N12 500 km	2053.4000 kHz	
1810	BEL	BRUGGE 003E15 51N12	FC CO OSB	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003E15 51N12 500 km	1831.0000 kHz	
1807	BEL	OOSTENDE 002E58 51N15	FC CO OSN	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	002E58 51N15 500 km	2053.4000 kHz	
1808	BEL	OOSTENDE 002E58 51N15	FC CO OSN	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	002E58 51N15 500 km	1831.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
BHR					**Bahreïn (Etat de)** **Bahrain (State of)** **Bahrein (Estado de)**							
27	BHR	BAHRAIN	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	304HF1B	X 33.0 dBW	ND	050E28 26N09	800 km		
28	BHR	BAHRAIN	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	050E28 26N09	800 km	442.0000 kHz	
29	BHR	BAHRAIN	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	050E28 26N09	800 km	487.0000 kHz	
30	BHR	BAHRAIN	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	050E28 26N09	800 km	500.0000 kHz	
31	BHR	BAHRAIN	050E28 26N09	FC CP A9M	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	050E28 26N09	800 km	516.0000 kHz	
BUL					**Bulgarie (République populaire de)** **Bulgaria (People's Republic of)** **Bulgaria (República Popular de)**							
1977	BUL	AHTOPOL RADIO	027E12 42N05	FC CO	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01		1743.0000 kHz	
1978	BUL	BALTCHIK RADIO	028E06 43N17	FC CO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01		1641.0000 kHz	
1966	BUL	BOURGAS RADIO	027E29 42N30	FC CO LZL	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01		1614.0000 kHz	
1967	BUL	BOURGAS RADIO	027E29 42N30	FC CO LZL	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01		1619.0000 kHz	
1968	BUL	BOURGAS RADIO	027E29 42N30	FC CO LZL	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01		1752.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1969	BUL	BOURGAS RADIO 027E29 42N30	FC CO LZL	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	515.0000 kHz	
1970	BUL	BOURGAS RADIO 027E29 42N30	FC CO LZL	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	524.5000 kHz	
1971	BUL	BOURGAS RADIO 027E29 42N30	FC CO LZL	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	445.0000 kHz	
1972	BUL	BOURGAS RADIO 027E29 42N30	FC CO	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	436.0000 kHz	
1973	BUL	BOURGAS RADIO 027E29 42N30	FC CO LZL	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1680.0000 kHz	
1976	BUL	MITCHOURIN RADIO 027E08 42N09	FC CO	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1794.0000 kHz	
1974	BUL	NESSEBAR RADIO 027E24 42N29	FC CO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1662.0000 kHz	
1975	BUL	PRIMORSKO RADIO 027E47 42N16	FC CO	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1695.0000 kHz	
1958	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1609.0000 kHz	
1959	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	304HA1B	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1621.0000 kHz	
1960	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1650.0000 kHz	
1961	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	1782.0000 kHz	
1962	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	522.5000 kHz	
1963	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	511.5000 kHz	

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1964	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	442.5000 kHz	
1965	BUL	VARNA RADIO 027E46 43N04	FC CO LZW	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	027E57 43N12 030E46 46N30 037E47 44N43 041E38 41N39 036E21 41N19 028E58 41N01	449.0000 kHz	

CNR

Canaries (Iles)
Canary (Islands)
Canarias (Islas)

514	CNR E	ARRECIFE RADIO 013W31 29N08	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	013W31 29N08 370 km	1731.4000 kHz	
515	CNR E	ARRECIFE RADIO 013W31 29N08	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	013W31 29N08 555 km		93
516	CNR E	ARRECIFE RADIO 013W31 29N08	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	013W31 29N08 555 km		90
517	CNR E	ARRECIFE RADIO 013W31 29N08	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	013W31 29N08 555 km		90
510	CNR E	LAS PALMAS 015W26 28N09	FC CO EBK	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	015W26 28N09 600 km	429.0000 kHz	
511	CNR E	LAS PALMAS 015W26 28N09	FC CO EBK	0000-2400 SIMPLEX	304HF1BCN	X 27.0 dBW	ND	015W26 28N09 600 km	500 kHz	92
512	CNR E	LAS PALMAS 015W26 28N09	FC CO EBK	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	015W26 28N09 400 km		
513	CNR E	LAS PALMAS 015W26 28N09	FC CO EBK	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	015W26 28N09 400 km	2000 kHz	93
518	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP EAL	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	015W36 27N45 555 km	438.0000 kHz	
519	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	015W36 27N45 370 km	1751.4000 kHz	
520	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	015W36 27N45 370 km		
521	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	015W36 27N45 555 km		92

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
522	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	015W36 27N45 555 km		93
523	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	015W36 27N45 555 km		90
1801	CNR E	LAS PALMAS RADIO 015W36 27N45	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	015W36 27N45 555 km		91
524	CNR E	TENERIFE RADIO 016W20 28N25	FC CP EAT	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	016W20 28N25 555 km	418.0000 kHz	
525	CNR E	TENERIFE RADIO 016W20 28N25	FC CP EAT	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	016W20 28N25 555 km	472.0000 kHz	
526	CNR E	TENERIFE RADIO 016W20 28N25	FC CP EAT	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	016W20 28N25 370 km	1721.4000 kHz	
527	CNR E	TENERIFE RADIO 016W20 28N25	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	016W20 28N25 370 km	1781.4000 kHz	
528	CNR E	TENERIFE RADIO 016W20 28N25	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	016W20 28N25 370 km		
529	CNR E	TENERIFE RADIO 016W20 28N25	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	016W20 28N25 555 km		92
530	CNR E	TENERIFE RADIO 016W20 28N25	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	016W20 28N25 555 km		93
917	CNR E	TENERIFE RADIO 016W20 28N25	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	016W20 28N25 555 km		90
1802	CNR E	TENERIFE RADIO 016W20 28N25	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	016W20 28N25 555 km		91

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		CYP		**Chypre (République de) Cyprus (Republic of) Chipre (República de)**						
120	CYP G	AKROTIRI 032E56 34N36	FC CO MKS	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	032E56 34N36 150 km	2070.0000 kHz 2000 kHz	12
908	CYP	CYPRUS RADIO 033E17 35N03	FC CP 5BA	0000-2400 DUPLEX	2K10A2A	X 37.0 dBW	ND	033E17 35N03 500 km	500 kHz	40
909	CYP	CYPRUS RADIO 033E17 35N03	FC CP	0000-2400 DUPLEX	3K00H3E	X 37.0 dBW	ND	033E17 35N03 500 km	1700 kHz	41
910	CYP	CYPRUS RADIO 033E17 35N03	FC CP	0000-2400 DUPLEX	3K00H3E	X 37.0 dBW	ND	033E17 35N03 500 km	2100 kHz	41
911	CYP	CYPRUS RADIO 033E17 35N03	FC CP	0000-2400 DUPLEX	3K00H3E	X 37.0 dBW	ND	033E17 35N03 500 km	2100 kHz	41
		D		**Allemagne ((République fédérale d') Germany (Federal Republic of) Alemania (República Federal de)**						
1785	D	BAD BRAMSTEDT 009E56 53N56	FC CO DEH	0000-2400 SIMPLEX	150HF1B	X 30.0 dBW	ND	007E30 54N20 150 km	1635.0000 kHz 2000 kHz	
1793	D	BORKUM 006E39 53N35	FC CO DHL64	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	006E55 53N10 006E55 54N00 008E50 54N00 008E50 53N10	1650.0000 kHz 2000 kHz	1232
1791	D	BOSUM 008E50 54N10	FC CO DHQ61	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	008E00 53N50 008E00 54N50 009E10 54N50 009E10 53N50	1650.0000 kHz 2000 kHz	1232
1774	D	BREMERHAVEN 008E30 53N31	FC OT	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	008E30 53N30 008E30 55N20 005E50 54N45 005E50 53N50	1666.4000 kHz 2000 kHz	
1794	D	BREMERHAVEN 008E35 53N33	FC CO DHB31	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	008E00 53N20 008E00 54N10 009E10 54N10 009E10 53N20	1650.0000 kHz 2000 kHz	1232
1775	D	CUXHAVEN 008E43 53N52	FC OT	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	008E40 53N50 008E30 55N20 005E50 54N45 005E50 53N50	1666.4000 kHz 2000 kHz	
1786	D	CUXHAVEN 008E43 53N32	FC CO DHH60	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	006E00 53N50 006E00 54N50 009E00 54N50 009E00 53N50	1752.0000 kHz 2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1790	D	EMDEN 007E12 53N21	FC CO DHL62	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	006E55 53N10 006E55 54N00 007E50 54N00 007E50 53N10	1650.0000 kHz 2000 kHz	1232
1777	D	FLENSBURG 009E41 54N48	FC CO DHJ58	0000-2400 DUPLEX	480HF1B	X 30.0 dBW	ND	005E00 58N00 018E00 58N00 018E00 55N00 015E00 54N00 005E00 51N00	1671.0000 kHz 2000 kHz	
1779	D	FLENSBURG 009E41 54N48	FC CO DHJ58	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	005E00 58N00 018E00 58N00 018E00 55N00 015E00 54N00 002E00 51N00	1703.0000 kHz 2000 kHz	
1780	D	FLENSBURG 009E41 54N48	FC CO DHJ58	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	005E00 58N00 018E00 58N00 018E00 55N00 015E00 54N00 002E00 51N00	2000 kHz	
1792	D	HUSUM 009E03 54N28	FC CO DHQ60	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	008E00 53N50 008E00 54N50 009E10 54N50 009E10 53N50	1650.0000 kHz 2000 kHz	1232
1776	D	KIEL 010E08 54N26	FC OT	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	010E10 54N30 010E40 53N50 011E45 54N20 011E10 55N05 009E10 55N00	1666.4000 kHz 2000 kHz	
1759	D	KIEL RADIO 010E08 54N26	FC CP DAO	0000-2400 DUPLEX	100HA1AAN	X 30.0 dBW	ND	010E10 54N30 019E35 54N20 019E20 56N00 017E50 57N40 009E00 59N30 009E00 55N55	470.0000 kHz 500 kHz	
1760	D	KIEL RADIO 010E08 54N26	FC CP DAO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	010E10 54N30 019E35 54N20 019E20 56N00 017E50 57N40 009E00 59N30 009E00 55N55	500 kHz	
1762	D	KIEL RADIO 010E08 54N26	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	010E10 54N30 019E35 54N20 019E20 56N00 017E50 57N40 009E00 59N30 009E00 55N55	2000 kHz	
1764	D	KIEL RADIO 010E08 54N26	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	010E10 54N30 019E35 54N20 019E20 56N00 017E50 57N40 009E00 59N30 009E00 55N55	2000 kHz	
1770	D	KIEL RADIO 010E08 54N26	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	010E10 54N30 016E20 54N25 016E10 55N15 015E40 56N10 009E00 57N50 009E00 55N55	2000 kHz	
1787	D	LEER 007E27 53N13	FC CO DHL65	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	007E10 53N10 007E10 53N40 007E40 53N40 007E40 53N10	1650.0000 kHz 2000 kHz	1232
1784	D	NEUSTADT 010E48 54N05	FC CO DEH50	0000-2400 SIMPLEX	150HF1B	X 30.0 dBW	ND	010E48 54N05 350 km	1616.5000 kHz 2000 kHz	
1755	D	NORDDEICH RADIO 007E12 53N38	FC CP DAN	0000-2400 DUPLEX	100HA1AAN	X 30.0 dBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	444.0000 kHz 500 kHz	
1756	D	NORDDEICH RADIO 007E12 53N38	FC CP DAN	0000-2400 DUPLEX	100HA1AAN	X 30.0 dBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	474.0000 kHz 500 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1757	D	NORDDEICH RADIO 007E12 53N38	FC CP DAN	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	500 kHz	
1758	D	NORDDEICH RADIO 007E12 53N38	FC CP DAN	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	500 kHz	
1761	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	2000 kHz	
1763	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	1800.4000 kHz 2000 kHz	
1765	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	008E10 53N00 009E15 56N50 005E30 56N40 001E45 54N30 001E45 52N35 002E55 51N15	2000 kHz	
1766	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	008E10 53N00 009E15 56N50 005E30 56N40 001E45 54N30 001E45 52N35 002E55 51N15	2000 kHz	
1767	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	008E10 53N00 009E15 56N50 005E30 56N40 001E45 54N30 001E45 52N35 002E55 51N15	2000 kHz	
1768	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	008E10 53N00 009E15 56N50 005E30 56N40 001E45 54N30 001E45 52N35 002E55 51N15	2000 kHz	
1769	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	008E10 53N00 009E15 56N50 005E30 56N40 001E45 54N30 001E45 52N35 002E55 51N15	2000 kHz	
1771	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	008E10 53N00 009E15 56N50 005E30 56N40 001E45 54N30 001E45 52N35 002E55 51N15	2000 kHz	
1772	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	008E10 53N00 009E15 56N50 005E30 56N40 001E45 54N30 001E45 52N35 002E55 51N15	2000 kHz	
1795	D	NORDERNEY 007E08 53N42	FC CO DHL63	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	006E55 53N10 006E55 54N00 008E50 54N00 008E50 53N10	1650.0000 kHz 2000 kHz	1232
1788	D	OLDENBURG 008E12 53N08	FC CO DHL60	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	008E30 53N20 008E30 54N00 009E00 54N00 009E00 53N20	1650.0000 kHz 2000 kHz	1232
1778	D	WILHELMSHAVEN 007E37 53N41	FC CO DHJ59	0000-2400 DUPLEX	480HF1B	X 30.0 dBW	ND	005E00 58N00 010E00 58N00 015E00 54N00 002E00 51N00	1691.0000 kHz 2000 kHz	
1781	D	WILHELMSHAVEN 007E37 53N41	FC CO DHJ59	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	005E00 58N00 018E00 58N00 018E00 55N00 015E00 54N00 002E00 51N00	1703.0000 kHz 2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1782	D	WILHELMSHAVEN 007E37 53N41	FC CO DHJ59	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	005E00 58N00 018E00 58N00 018E00 55N00 015E00 54N00 002E00 51N00	2000 kHz	
1789	D	WILHELMSHAVEN 008E07 53N31	FC CO DHL61	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	007E50 53N10 007E50 54N00 008E50 54N00 008E50 53N10	1650.0000 kHz 2000 kHz	1232

DDR

République démocratique allemande
German Democratic Republic
República Democrática Alemana

336	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	300HF1B	X 37.0 dBW	ND	013E37 54N35 750 km	432.0000 kHz	
337	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	013E37 54N35 750 km	432.0000 kHz	
338	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	013E37 54N35 750 km	522.0000 kHz	
339	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	300HF1B	X 37.0 dBW	ND	013E37 54N35 750 km	522.0000 kHz	
340	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 SIMPLEX	100HA1A	X 37.0 dBW	ND	013E37 54N35 750 km	500 kHz	
341	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 SIMPLEX	300HF1B	X 37.0 dBW	ND	013E37 54N35 750 km	500 kHz	
342	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	300HF1B	X 37.0 dBW	ND	013E37 54N35 1000 km	1678.4000 kHz	
343	DDR	RUEGEN 013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	2K40J3E	X 37.0 dBW	ND	013E37 54N35 1000 km	1678.4000 kHz	
344	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	013E37 54N35 1000 km	1680.0000 kHz	
345	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	2K40JXX	X 37.0 dBW	ND	013E37 54N35 1000 km	1680.0000 kHz	
346	DDR	RUEGEN 013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	2K40J3E	X 37.0 dBW	ND	013E37 54N35 1000 km	1681.4000 kHz	
347	DDR	RUEGEN 013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	300HF1B	X 37.0 dBW	ND	013E37 54N35 1000 km	1681.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
348	DDR	RUEGEN	013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	300HF1B	X 37.0 dBW	ND	013E37 54N35 1000 km	1717.4000 kHz	
349	DDR	RUEGEN	013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	2K40J3E	X 37.0 dBW	ND	013E37 54N35 1000 km	1717.4000 kHz	
350	DDR	RUEGEN	013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	013E37 54N35 1000 km	1719.0000 kHz	
351	DDR	RUEGEN	013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	2K40JXX	X 37.0 dBW	ND	013E37 54N35 1000 km	1719.0000 kHz	
352	DDR	RUEGEN	013E37 54N35	FC CP RADIO	0000-2400 DUPLEX	2K40J3E	X 37.0 dBW	ND	013E37 54N35 1000 km	1720.4000 kHz	
353	DDR	RUEGEN	013E37 54N35	FC CP Y5M	0000-2400 DUPLEX	300HF1B	X 37.0 dBW	ND	013E37 54N35 1000 km	1720.4000 kHz	

DNK

Danemark
Denmark
Dinamarca

2034	DNK	ARHUS	010E13 56N10	FC CO OVK	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	010E13 56N10 400 km	461.0000 kHz	
2029	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	008E07 55N33 350 km	429.0000 kHz	
2030	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	008E07 55N33 350 km		
2038	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	008E07 55N33 350 km	1600 kHz	
2039	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	008E07 55N33 350 km	1600 kHz	
2040	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	008E07 55N33 350 km	1600 kHz	
2041	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	008E07 55N33 350 km	1600 kHz	
2054	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33 350 km	1714.4000 kHz	
2055	DNK	BLAAVAND	008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33 350 km	1804.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2056	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33 350 km	1807.4000 kHz	
2057	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33 350 km	1811.4000 kHz	
2058	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33 350 km	1814.4000 kHz	
2059	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33 350 km	1776.4000 kHz	
2060	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33 350 km		
2037	DNK	FREDERIKSHAVN 010E35 57N25	FC CO OVG	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	010E35 57N25 400 km	461.0000 kHz	
2025	DNK	LYNGBY 011E25 55N50	FC CP OXZ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	011E25 55N50 350 km	487.0000 kHz	
2026	DNK	LYNGBY 011E25 55N50	FC CP OXZ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	011E25 55N50 350 km		
2042	DNK	LYNGBY 011E25 55N50	FC CP OXC	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	011E25 55N50 350 km	1600 kHz	
2046	DNK	LYNGBY 011E25 55N50	FC CP OXZ	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	011E25 55N50 350 km	1685.4000 kHz	
2047	DNK	LYNGBY 011E25 55N50	FC CP OXZ	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	011E25 55N50 350 km	1688.4000 kHz	
2035	DNK	ROENNE 014E53 55N07	FC CO OVD	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	014E53 55N07 400 km	461.0000 kHz	
2044	DNK	ROENNE 015E07 55N03	FC CP	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	015E07 55N03 350 km	1600 kHz	
2050	DNK	ROENNE 015E07 55N03	FC CP	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	015E07 55N03 350 km		
2051	DNK	ROENNE 015E07 55N03	FC CP	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	015E07 55N03 350 km		
2027	DNK	SKAGEN 010E34 57N44	FC CP OXP	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	010E34 57N44 350 km	464.0000 kHz	
2028	DNK	SKAGEN 010E34 57N44	FC CP OXP	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	010E34 57N44 350 km		
2043	DNK	SKAGEN 010E34 57N44	FC CP OXP	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	010E34 57N44 350 km	1600 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2048	DNK	SKAGEN 010E34 57N44	FC CP OXP	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	010E34 57N44 350 km	1699.4000 kHz	
2049	DNK	SKAGEN 010E34 57N44	FC CP OXP	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	010E34 57N44 350 km	1702.4000 kHz	
2036	DNK	STEVNS 012E25 55N16	FC CO OVF	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	012E25 55N16 400 km	461.0000 kHz	
2031	DNK	TORSHAVN 006W47 62N01	FC CP OXJ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	006W47 62N01 400 km	447.0000 kHz	
2032	DNK	TORSHAVN 006W47 62N01	FC CP OXJ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	006W47 62N01 400 km		
2033	DNK	TORSHAVN 006W46 62N01	FC CO OUL	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	006W46 62N01 800 km	461.0000 kHz	
2045	DNK	TORSHAVN 006W47 62N01	FC CP OXJ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	006W47 62N01 350 km	1600 kHz	
2052	DNK	TORSHAVN 006W47 62N01	FC CP OXJ	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	006W47 62N01 350 km	1709.4000 kHz	
2053	DNK	TORSHAVN 006W47 62N01	FC CP OXJ	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	006W47 62N01 350 km	1779.4000 kHz	

E

Espagne
Spain
España

504	E	BAGUR RADIO 003E13 41N58	FC CP EAB	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	003E13 41N58 555 km	441.0000 kHz	
505	E	BAGUR RADIO 003E13 41N58	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	003E13 41N58 370 km	1741.4000 kHz	
506	E	BAGUR RADIO 003E13 41N58	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	003E13 41N58 555 km		92
507	E	BAGUR RADIO 003E13 41N58	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	003E13 41N58 555 km		93
508	E	BAGUR RADIO 003E13 41N58	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	003E13 41N58 555 km		90
1796	E	BAGUR RADIO 003E13 41N58	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	003E13 41N58 555 km		91

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
450	E	BARCELONA 001E55 41N17	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001E55 41N17 555 km		93
451	E	BARCELONA 001E55 41N17	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001E55 41N17 555 km		90
509	E	BARCELONA RADIO 001E55 41N17	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	001E55 41N17 370 km	1731.4000 kHz	
452	E	CABO DE GATA RADIO 002W12 36N43	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	002W12 36N43 370 km	1782.4000 kHz	
453	E	CABO DE GATA RADIO 002W12 36N43	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	002W12 36N43 555 km		93
454	E	CABO DE GATA RADIO 002W12 36N43	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	002W12 36N43 555 km		90
455	E	CABO DE LA NAO RADIO 000E11 38N43	FC CP	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	000E11 38N43 555 km	476.0000 kHz	
456	E	CABO DE LA NAO RADIO 000E11 38N43	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	000E11 38N43 370 km	1691.4000 kHz	
457	E	CABO DE LA NAO RADIO 000E11 38N43	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	000E11 38N43 555 km		92
458	E	CABO DE LA NAO RADIO 000E11 38N43	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	000E11 38N43 555 km		93
918	E	CABO DE LA NAO RADIO 000E11 38N43	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	000E11 38N43 555 km		90
1797	E	CABO DE LA NAO RADIO 000E11 38N43	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	000E11 38N43 555 km		91
459	E	CABO PENAS RADIO 005W51 43N39	FC CP EAS	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	005W51 43N39 555 km	441.0000 kHz	
460	E	CABO PENAS RADIO 005W51 43N39	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	005W51 43N39 370 km	1751.4000 kHz	
461	E	CABO PENAS RADIO 005W51 43N39	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	005W51 43N39 370 km	1758.9000 kHz	
462	E	CABO PENAS RADIO 005W51 43N39	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W51 43N39 555 km		92
463	E	CABO PENAS RADIO 005W51 43N39	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W51 43N39 555 km		93
464	E	CABO PENAS RADIO 005W51 43N39	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W51 43N39 555 km		90

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1798	E	CABO PENAS RADIO 005W51 43N39	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W51 43N39 555 km		91
492	E	CADIZ 006W12 36N15	FC CO EBC	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	006W12 36N15 600 km	429.0000 kHz	
493	E	CADIZ 006W12 36N15	FC CO EBC	0000-2400 SIMPLEX	304HF1BCN	X 27.0 dBW	ND	006W12 36N15 600 km	500 kHz	92
494	E	CADIZ 006W12 36N15	FC CO EBC	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	006W12 36N15 400 km		
495	E	CADIZ 006W12 36N15	FC CO EBC	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	006W12 36N15 400 km	2000 kHz	93
496	E	CARTAGENA 000W58 37N36	FC CO EBD	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	000W58 37N36 600 km	429.0000 kHz	
497	E	CARTAGENA 000W58 37N36	FC CO EBD	0000-2400 SIMPLEX	304HF1BCN	X 27.0 dBW	ND	000W58 37N36 600 km	500 kHz	92
498	E	CARTAGENA 000W58 37N36	FC CO EBD	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	000W58 37N36 400 km		
499	E	CARTAGENA 000W58 37N36	FC CO EBD	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	000W58 37N36 400 km	2000 kHz	93
465	E	CHIPIONA RADIO 006W25 36N42	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	006W25 36N42 370 km	1701.4000 kHz	
466	E	CHIPIONA RADIO 006W25 36N42	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	006W25 36N42 370 km		
467	E	CHIPIONA RADIO 006W25 36N42	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	006W25 36N42 370 km		
468	E	CHIPIONA RADIO 006W25 36N42	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	006W25 36N42 555 km		93
469	E	CHIPIONA RADIO 006W25 36N42	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	006W25 36N42 555 km		90
470	E	CORUNA RADIO 008W27 43N22	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	008W27 43N22 370 km	1731.4000 kHz	
471	E	CORUNA RADIO 008W27 43N22	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	008W27 43N22 370 km	1749.4000 kHz	
472	E	CORUNA RADIO 008W27 43N22	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	008W27 43N22 555 km		93
473	E	CORUNA RADIO 008W27 43N22	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	008W27 43N22 555 km		90

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
919	E	CORUNA RADIO 008W27 43N22	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	008W27 43N22 370 km		
500	E	FERROL 008W16 43N28	FC CO EBB	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	008W16 43N28 600 km	429.0000 kHz	
501	E	FERROL 008W16 43N28	FC CO EBB	0000-2400 SIMPLEX	304HF1BCN	X 27.0 dBW	ND	008W16 43N28 600 km	500 kHz	92
502	E	FERROL 008W16 43N28	FC CO EBB	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	008W16 43N28 400 km		
503	E	FERROL 008W16 43N28	FC CO EBB	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	008W16 43N28 400 km	2000 kHz	93
474	E	FINISTERRE RADIO 009W16 42N54	FC CP EAF	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	009W16 42N54 555 km	447.0000 kHz	
475	E	FINISTERRE RADIO 009W16 42N54	FC CP EAF	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	009W16 42N54 555 km	472.0000 kHz	
476	E	FINISTERRE RADIO 009W16 42N54	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	009W16 42N54 370 km	1699.4000 kHz	
477	E	FINISTERRE RADIO 009W16 42N54	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	009W16 42N54 370 km		
478	E	FINISTERRE RADIO 009W16 42N54	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	009W16 42N54 555 km		92
479	E	FINISTERRE RADIO 009W16 42N54	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	009W16 42N54 555 km		93
480	E	FINISTERRE RADIO 009W16 42N54	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	009W16 42N54 555 km		90
1799	E	FINISTERRE RADIO 009W16 42N54	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	009W16 42N54 555 km		91
481	E	MACHICHACO RADIO 002W45 43N27	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	002W45 43N27 370 km	1685.4000 kHz	
482	E	MACHICHACO RADIO 002W45 43N27	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	002W45 43N27 370 km	1705.4000 kHz	
483	E	MACHICHACO RADIO 002W45 43N27	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	002W45 43N27 555 km		93
484	E	MACHICHACO RADIO 002W45 43N27	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	002W45 43N27 555 km		90
485	E	TARIFA RADIO 005W33 36N03	FC CP EAC	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	005W33 36N03 555 km	450.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
486	E	TARIFA RADIO 005W33 36N03	FC CP EAC	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	005W33 36N03 555 km	484.0000 kHz	
487	E	TARIFA RADIO 005W33 36N03	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	005W33 36N03 370 km	1679.4000 kHz	
488	E	TARIFA RADIO 005W33 36N03	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	005W33 36N03 370 km	1739.4000 kHz	
489	E	TARIFA RADIO 005W33 36N03	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W33 36N03 555 km		92
490	E	TARIFA RADIO 005W33 36N03	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W33 36N03 555 km		93
491	E	TARIFA RADIO 005W33 36N03	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W33 36N03 555 km		90
1800	E	TARIFA RADIO 005W33 36N03	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W33 36N03 555 km		91

ETH

Ethiopie
Ethiopia
Etiopía

1804	ETH	ASSAB 042E45 13N01	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	042E45 13N01 200 km	400 kHz	1260
1898	ETH	ASSAB 042E45 13N01	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	042E45 13N01 200 km	1600 kHz	1260
1900	ETH	ASSAB 042E45 13N01	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	042E45 13N01 200 km	2100 kHz	1260
1803	ETH	MASSAWA 039E21 15N37	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	039E21 15N37 200 km	400 kHz	1260
1899	ETH	MASSAWA 039E21 15N37	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	039E21 15N37 200 km	1600 kHz	1260
1901	ETH	MASSAWA 039E21 15N37	FC CP RADIO	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	039E21 15N37 200 km	2100 kHz	1260

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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F

France
Francia

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1818	F	AJACCIO 008E46 41N55	FC CO FUI	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	001W00 37N35 012E30 37N35 012E30 41N25 007E30 43N45 002E50 43N10	500 kHz	1288
1838	F	AJACCIO 008E46 41N56	FC CO FUI	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1839	F	AJACCIO 008E46 41N56	FC CO FUI	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1832	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001W10 44N39 800 km	421.0000 kHz	1272
1833	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001W10 44N39 800 km		1274
1834	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001W10 44N39 800 km		1274
1884	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	001W10 44N39 1200 km	1821.4000 kHz	1284
1885	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	001W10 44N39 1200 km		
2065	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001W10 44N39 1200 km		1289
1841	F	BAYONNE 001W24 43N16	FC CO FEL	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	005W00 51N00 300 km	2000 kHz	1267
1842	F	BAYONNE 001W24 43N16	FC CO FEL	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	005W00 51N00 300 km	2000 kHz	1267
1826	F	BOULOGNE 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001E37 50N43 800 km	450.0000 kHz	1268
1827	F	BOULOGNE 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001E37 50N43 800 km	429.0000 kHz	1269
1828	F	BOULOGNE 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001E37 50N43 800 km		1274
1867	F	BOULOGNE MER 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	001E37 50N43 1200 km	1695.4000 kHz	1276

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1894	F	BOULOGNE MER 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	001E37 50N43 1200 km	1772.4000 kHz	1286
1895	F	BOULOGNE MER 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	001E37 50N43 1200 km		
1896	F	BOULOGNE MER 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001E37 50N43 1200 km		1289
1897	F	BOULOGNE MER 001E38 50N43	FC CP FFB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	001E37 50N43 1200 km		1289
1819	F	BREST 004W19 48N26	FC CO FUE	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	001W45 43N23 010W00 44N10 010W00 50N00 005W00 50N00 000W01 50N45 000W01 49N25	500 kHz	1291
1820	F	BREST 004W19 48N26	FC CO FUE	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	001W45 43N23 010W00 44N10 010W00 50N00 005W00 50N00 000W01 50N45 000W01 49N25	500 kHz	1291
1843	F	BREST 004W14 48N26	FC CO FEW	0000-2400 DUPLEX	2K80J3EJN	X 27.8 dBW	ND	004W14 48N26 350 km	2000 kHz	1267
1844	F	BREST 004W14 48N26	FC CO FEW	0000-2400 DUPLEX	2K80J3EJN	X 27.8 dBW	ND	004W14 48N26 350 km	2000 kHz	1267
1845	F	BREST 004W14 48N26	FC CO FEW	0000-2400 DUPLEX	2K80J3EJN	X 27.8 dBW	ND	004W14 48N26 350 km	2000 kHz	1267
1865	F	BREST BALISAGE 004W29 48N23	FC OT FRA2	0700-1630 SIMPLEX	2K70J3EJN	X 23.0 dBW	ND	004W29 48N23 366 km	1650.0000 kHz	1275
1821	F	CHERBOURG 001W37 49N35	FC CO FUC	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	004W45 48N20 004W45 50N00 001E10 51N10 001E55 50N55 000E01 49N25	468.0000 kHz	1291
1822	F	CHERBOURG 001W37 49N35	FC CO FUC	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	004W45 48N20 004W45 50N00 001E10 51N10 001E55 50N55 000E01 49N25	500 kHz	1291
1846	F	CHERBOURG 001W37 49N35	FC CO FUQ	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W37 49N35 350 km	2000 kHz	1267
1847	F	CHERBOURG 001W37 49N35	FC CO FUQ	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W37 49N35 350 km	2000 kHz	1267
1848	F	CHERBOURG 001W37 49N35	FC CO FUQ	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W37 49N35 350 km	2000 kHz	1267
1849	F	DUNKERQUE 002E20 51N03	FC CO FEH	0000-2400 DUPLEX	2K80J3EJN	X 20.0 dBW	ND	002E20 51N03 150 km	2000 kHz	1267
1850	F	DUNKERQUE 002E20 51N03	FC CO FEH	0000-2400 DUPLEX	2K80J3EJN	X 20.0 dBW	ND	002E20 51N03 150 km	2000 kHz	1267

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1891	F	GRASSE 006E55 43N40	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	006E55 43N40 500 km	1835.4000 kHz	1285
1892	F	GRASSE 006E55 43N40	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	006E55 43N40 500 km		
1893	F	GRASSE 006E55 43N40	FC CP FF	0000-2400 DUPLEX	304HF1B	X 28.5 dBW	ND	006E55 43N40 500 km		1289
1851	F	LA PALLICE 000W59 45N56	FC CO FUR	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	005W00 51N00 300 km	2000 kHz	1267
1852	F	LA PALLICE 000W59 45N56	FC CO FUR	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	005W00 51N00 300 km	2000 kHz	1267
1829	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	004W44 48N20 800 km	416.0000 kHz	1270
1830	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	004W44 48N20 800 km	487.0000 kHz	1271
1831	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	004W44 48N20 800 km		1274
1868	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	004W44 48N20 1200 km	1674.4000 kHz	1277
1869	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	004W44 48N20 1200 km	1807.4000 kHz	1278
1870	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	004W44 48N20 1200 km		
1871	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	004W44 48N20 1200 km		
1872	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	004W44 48N20 1200 km		1289
1873	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	004W44 48N20 1200 km		1289
1853	F	LE HAVRE 000E06 49N29	FC CO FEE	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	000E06 49N29 350 km	2000 kHz	1267
1854	F	LE HAVRE 000E06 49N29	FC CO FEE	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	000E06 49N29 350 km	2000 kHz	1267
1855	F	LORIENT 003W27 47N44	FC CO FUT	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	005W00 51N00 300 km	2000 kHz	1267
1856	F	LORIENT 003W27 47N44	FC CO FUT	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	005W00 51N00 300 km	2000 kHz	1267

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1857	F	LORIENT 003W27 47N44	FC CO FUT	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	005W00 51N00 300 km	2000 kHz	1267
1835	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	005E21 43N19 500 km	432.0000 kHz	1273
1836	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	005E21 43N19 800 km		1274
1837	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	005E21 43N19 800 km		1274
1858	F	MARSEILLE 005E21 43N14	FC CO FUL	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1859	F	MARSEILLE 005E21 43N14	FC CO FUL	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1886	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	005E21 43N19 1200 km		
1887	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	005E21 43N19 1200 km		
1888	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	005E21 43N19 1200 km		
1889	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	005E21 43N19 1200 km		1289
1890	F	MARSEILLE 005E21 43N19	FC CP FFM	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	005E21 43N19 1200 km		1289
1866	F	MARSEILLE BALISAGE 005E21 43N17	FC OT FRN2	0700-1630 SIMPLEX	2K70J3EJN	X 21.7 dBW	ND	005E21 43N17 366 km	1637.5000 kHz	1275
1877	F	QUIMPERLE 003W30 47N52	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	003W30 47N52 500 km	1807.4000 kHz	1280
1878	F	QUIMPERLE 003W30 47N52	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	003W30 47N52 500 km	1674.4000 kHz	1281
1879	F	QUIMPERLE 003W30 47N52	FC CP FF	0000-2400 DUPLEX	304HF1B	X 28.5 dBW	ND	003W30 47N52 500 km		1289
1874	F	S MALO 002W02 48N38	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	002W02 48N38 500 km	1674.4000 kHz	1279
1875	F	S MALO 002W02 48N38	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	002W02 48N38 500 km		
1876	F	S MALO 002W02 48N38	FC CP FF	0000-2400 DUPLEX	304HF1B	X 28.5 dBW	ND	002W02 48N28 500 km		1290

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1880	F	S NAZAIRE 002W06 47N20	FC CP FFO	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	002W06 47N20 1200 km	1723.4000 kHz	1282
1881	F	S NAZAIRE 002W06 47N20	FC CP FFO	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	002W06 47N20 1200 km	1688.4000 kHz	1283
1882	F	S NAZAIRE 002W06 47N20	FC CP FFO	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	002W06 47N20 1200 km		
1883	F	S NAZAIRE 002W06 47N21	FC CP FFO	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	002W06 47N20 1200 km		1289
1860	F	SETE 003E41 43N24	FC CO FEC	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1861	F	SETE 003E41 43N24	FC CO FEC	0000-2400 DUPLEX	2K80J3EJN	X 26.0 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1823	F	TOULON 006E04 43N08	FC CO FUO	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	001W00 37N35 012E30 37N35 012E30 41N25 007E30 43N45 002E50 43N10	418.0000 kHz	1291
1824	F	TOULON 006E04 43N08	FC CO FUO	0000-2400 SIMPLEX	304HF1BBN	X 33.0 dBW	ND	001W00 37N35 012E30 37N35 012E30 41N25 007E30 43N45 002E50 43N10	458.0000 kHz	1291
1862	F	TOULON 006E04 43N08	FC CO FEQ	0000-2400 DUPLEX	2K80J3EJN	X 27.8 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1863	F	TOULON 006E04 43N08	FC CO FEQ	0000-2400 DUPLEX	2K80J3EJN	X 27.8 dBW	ND	006E30 40N30 400 km	2000 kHz	1267
1864	F	TOULON 006E04 43N08	FC CO FEQ	0000-2400 DUPLEX	2K80J3EJN	X 27.8 dBW	ND	006E30 40N30 400 km	2000 kHz	1267

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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FNL

Finlande
Finland
Finlandia

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
406	FNL	HAILUOTO 024E35 65N02	FC CP OFT	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	024E35 65N02 300 km	1600 kHz	75
419	FNL	HAILUOTO 024E35 65N02	FC CP OFT	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	024E35 65N02 300 km	1700 kHz	
420	FNL	HAILUOTO 024E35 65N02	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	024E35 65N02 300 km	1700 kHz	
408	FNL	HANKO 022E56 59N50	FC CP OFI	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	022E56 59N50 300 km	1600 kHz	75
423	FNL	HANKO 022E56 59N50	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	022E56 59N50 300 km	1700 kHz	
426	FNL	HANKO 022E57 59N50	FC CP OFI	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	022E57 59N50 500 km	1846.4000 kHz 1700 kHz	
427	FNL	HANKO 022E57 59N50	FC CP OFI	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	022E57 59N50 500 km	1849.4000 kHz 1700 kHz	
388	FNL	HELSINKI 025E54 60N29	FC CP OHC	0000-2400 DUPLEX	100HA1A	X 34.8 dBW	ND	025E54 60N29 1500 km	438.0000 kHz 500 kHz	
389	FNL	HELSINKI 025E54 60N29	FC CP OHC	0000-2400 DUPLEX	100HA1A	X 34.8 dBW	ND	025E54 60N29 1500 km	519.0000 kHz 500 kHz	
392	FNL	HELSINKI 025E54 60N29	FC CP OHC	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	025E54 60N29 500 km	524.0000 kHz 500 kHz	
393	FNL	HELSINKI 025E54 60N29	FC CP OHC	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	025E54 60N29 500 km	500 kHz	
396	FNL	HELSINKI 025E54 60N29	FC CP OHC	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	025E54 60N29 500 km	500 kHz	
399	FNL	HELSINKI 025E02 60N09	FC CP OFA	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	025E02 60N09 500 km	1600 kHz	
400	FNL	HELSINKI 025E02 60N09	FC CP OFA	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	025E02 60N09 500 km	1600 kHz	
403	FNL	HELSINKI 025E02 60N09	FC CP OFA	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	025E02 60N09 300 km	1600 kHz	75

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
410	FNL	HELSINKI 025E02 60N09	FC CP OHG	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	025E02 60N09 300 km	1706.4000 kHz 1700 kHz	
411	FNL	HELSINKI 025E02 60N09	FC CP OHG	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	025E02 60N09 300 km	1709.4000 kHz 1700 kHz	
412	FNL	HELSINKI 025E02 60N09	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	025E02 60N09 300 km	1700 kHz	
409	FNL	KOTKA 026E54 60N29	FC CP OFU	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	026E54 60N29 300 km	1600 kHz	75
424	FNL	KOTKA 026E54 60N29	FC CP OFU	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	026E54 60N29 300 km	1700 kHz	
425	FNL	KOTKA 026E54 60N29	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	026E54 60N29 300 km	1700 kHz	
390	FNL	MARIEHAMN 019E57 60N07	FC CP OHM	0000-2400 DUPLEX	100HA1A	X 34.8 dBW	ND	019E57 60N07 1500 km	438.0000 kHz 500 kHz	
394	FNL	MARIEHAMN 019E57 60N07	FC CP OHM	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	019E57 60N07 500 km	433.0000 kHz 500 kHz	
397	FNL	MARIEHAMN 019E57 60N07	FC CP OHM	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	019E57 60N07 500 km	500 kHz	
401	FNL	MARIEHAMN 019E57 60N07	FC CP OFH	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	019E57 60N07 500 km	1600 kHz	
404	FNL	MARIEHAMN 019E57 60N07	FC CP OFH	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	019E57 60N07 300 km	1600 kHz	75
413	FNL	MARIEHAMN 019E57 60N07	FC CP OFH	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	019E57 60N07 300 km	1700 kHz	
414	FNL	MARIEHAMN 019E57 60N07	FC CP OFH	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	019E57 60N07 300 km	1700 kHz	
415	FNL	MARIEHAMN 019E57 60N07	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	019E57 60N07 300 km	1700 kHz	
428	FNL	MARIEHAMN 019E57 60N07	FC CP OFH	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	019E57 60N07 500 km	1850.4000 kHz 1700 kHz	
407	FNL	PORI 021E27 61N37	FC CP OFS	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	021E27 61N37 300 km	1600 kHz	75
421	FNL	PORI 021E27 61N37	FC CP OFS	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	021E27 61N37 300 km	1700 kHz	
422	FNL	PORI 021E27 61N37	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	021E27 61N37 300 km	1700 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
391	FNL	VAASA	021E09 63N19	FC CP OHX	0000-2400 DUPLEX	100HA1A	X 34.8 dBW	ND	021E09 63N19	500 km	524.0000 kHz 500 kHz	
395	FNL	VAASA	021E09 63N19	FC CP OHX	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	021E09 63N19	500 km	474.0000 kHz 500 kHz	
398	FNL	VAASA	021E09 63N19	FC CP OHX	0000-2400 DUPLEX	304HF1B	X 34.8 dBW	ND	021E09 63N19	500 km	500 kHz	
402	FNL	VAASA	021E09 63N19	FC CP OFW	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	021E09 63N19	500 km	1600 kHz	
405	FNL	VAASA	021E09 63N19	FC CP OFW	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	021E09 63N19	300 km	1600 kHz	75
416	FNL	VAASA	021E09 63N19	FC CP OFW	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	021E09 63N19	300 km	1700 kHz	
417	FNL	VAASA	021E09 63N19	FC CP OFW	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	021E09 63N19	300 km	1700 kHz	
418	FNL	VAASA	021E09 63N19	FC CO	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	021E09 63N19	300 km	1700 kHz	

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175	G	ABERDEEN COASTGUARD	002W03 57N08	FC OT ABERDEEN	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	002W03 57N08	360 km		410
196	G	ABERDEEN COASTGUARD	002W03 57N08	FC OT ABERDEEN	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	002W03 57N08	360 km		411
225	G	ABERDEEN COASTGUARD	002W03 57N08	FC OT ABERDEEN	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	002W03 57N08	360 km		412
295	G	ABERDEEN COASTGUARD	002W03 57N08	FC OT ABERDEEN	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	002W03 57N08	360 km		414
226	G	AILSA CRAIG LTSN	005W06 55N15	FC OT CRAIG	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	005W06 55N15	150 km	1647.5000 kHz	412
296	G	ALDERNEY	002W12 49N43	FC OT ALDERNEY	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002W12 49N43	100 km	1642.5000 kHz	414
58	G	ANGLESEY RADIO	004W18 53N24	FC CP GLV	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	004W18 53N24	160 km	500 kHz	329

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
68	G	ANGLESEY RADIO 004W18 53N24	FC CP GLV	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	004W18 53N24 160 km	500 kHz	397
78	G	ANGLESEY RADIO 004W18 53N24	FC CP GLV	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	004W18 53N24 160 km	447.0000 kHz 500 kHz	
96	G	ANGLESEY RADIO 004W18 53N24	FC CP GLV	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	004W18 53N24 160 km	2000 kHz	328
108	G	ANGLESEY RADIO 004W18 53N24	FC CP GLV	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	004W18 53N24 160 km	2000 kHz	398
138	G	ANGLESEY RADIO 004W18 53N24	FC CP ANGLESEY	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	004W18 53N24 160 km	2000 kHz	20
227	G	ARDNAMURCHAN LTSN 006W13 56N44	FC OT MURCHAN	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	006W13 56N44 150 km		412
228	G	BARDSEY LSTN 000E24 51N39	FC OT BARDSEY	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	000E24 51N39 150 km	1647.5000 kHz	412
229	G	BASS RCK LSTN 002W38 56N05	FC OT BASS RCK	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	002W38 56N05 150 km	1647.5000 kHz	412
230	G	BELL RCK LSTN 002W23 56N26	FC OT BELL RCK	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	002W23 56N26 150 km	1647.5000 kHz	412
289	G	BISHOP ROCK LSTN 006W26 49N52	FC OT BISHOP R	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W26 49N52 150 km	1652.5000 kHz	413
231	G	BRESSAY LTSN 001W07 60N07	FC OT BRESSAY	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	001W07 60N07 150 km		412
176	G	BRIXHAM COASTGUARD 004W13 50N19	FC OT BRIXHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W13 50N19 180 km		410
197	G	BRIXHAM COASTGUARD 004W13 50N19	FC OT BRIXHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W13 50N19 180 km		411
232	G	BRIXHAM COASTGUARD 004W13 50N19	FC OT BRIXHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W13 50N19 180 km		412
297	G	BRIXHAM COASTGUARD 004W13 50N19	FC OT PORTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W13 50N19 180 km	1662.5000 kHz	414
233	G	BURRA FIRTH 000W53 60N48	FC OT BURRA	0900-1700 SIMPLEX	2K80J3E	X 23.0 dBW	ND	000W53 60N48 150 km		412
234	G	BUTT OF LEWIS LTSN 006W16 58N31	FC OT BUTT	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	006W16 58N31 150 km	1647.5000 kHz	412
235	G	CALF OF MAN LTSN 004W50 54N03	FC OT CALF	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	004W50 54N03 150 km	1647.5000 kHz	412

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
236	G	CAPE WRATH LTSN 005W00 58N38	FC OT C WRATH	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	005W00 58N38 150 km		412
298	G	CASQUETS LSTN 002W22 49N43	FC OT CASQUETS	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002W22 49N43 150 km	1662.5000 kHz	414
121	G	CLYDE (TOWARD) 004W59 55N52	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	004W59 55N52 275 km	2000 kHz	396
139	G	CLYDE (TOWARD) 004W59 55N52	FC CO TOWARD	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	004W59 55N52 275 km	2000 kHz	395
177	G	CLYDE COASTGUARD 004W48 55N49	FC OT CLYDE	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W48 55N49 180 km		410
198	G	CLYDE COASTGUARD 004W48 55N49	FC OT CLYDE	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W48 55N49 180 km		411
237	G	CLYDE COASTGUARD 004W48 55N49	FC OT CLYDE	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W48 55N49 180 km		412
299	G	CLYDE COASTGUARD 004W48 55N49	FC OT CLYDE	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W48 55N49 180 km		414
238	G	COPINSAY LTSN 002W40 58N54	FC OT COPINSAY	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	002W40 58N54 150 km	1647.5000 kHz	412
199	G	COQUET LSTN 001W32 55N20	FC OT COQUET	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001W32 55N20 150 km	1632.5000 kHz	411
239	G	CORSEWALL LTSN 005W10 55N01	FC OT CORSWALL	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	005W10 55N01 150 km		412
59	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001W28 55N04 320 km	500 kHz	329
69	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001W28 55N04 320 km	500 kHz	397
79	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	001W28 55N04 320 km	441.0000 kHz 500 kHz	
88	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001W28 55N04 320 km	500 kHz	
97	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001W28 55N04 320 km	2000 kHz	328
109	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001W28 55N04 320 km	2000 kHz	398
122	G	CULLERCOATS RADIO 001W28 55N04	FC CP GCC	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001W28 55N04 320 km	2000 kHz	396

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
140	G	CULLERCOATS RADIO 001W28 55N04	FC CP CULLERCO	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W28 55N04 320 km	1842.4000 kHz 2000 kHz	395
141	G	CULLERCOATS RADIO 001W28 55N04	FC CP CULLERCO	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W28 55N04 320 km	2000 kHz	21
178	G	DOVER COASTGUARD 001E22 51N10	FC OT DOVER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E22 51N10 180 km		410
200	G	DOVER COASTGUARD 001E22 51N10	FC OT DOVER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E22 51N10 180 km		411
241	G	DOVER COASTGUARD 001E22 51N10	FC OT DOVER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E22 51N10 180 km	1647.5000 kHz	412
300	G	DOVER COASTGUARD 001E22 51N10	FC OT DOVER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E22 51N10 180 km		414
301	G	DOWSING LSTN 000E50 53N34	FC OT DOWSING	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	000E50 53N34 150 km	1662.5000 kHz	414
302	G	DUDGEON LSTN 001E13 53N15	FC OT DUDGEON	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E13 53N15 150 km	1662.5000 kHz	414
242	G	DUNCANSBY HD LSTN 003W01 58N39	FC OT DUNCANSB	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	003W01 58N39 150 km	1647.5000 kHz	412
243	G	EAST GOODWIN LSTN 001E36 51N13	FC OT EASTGOOD	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E36 51N13 150 km	1647.5000 kHz	412
290	G	EDDYSTONE LSTN 004W15 50N10	FC OT EDDYSTON	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004W15 50N10 150 km	1662.5000 kHz	413
244	G	FAIR ISLE S LTSN 001W39 59N31	FC OT FAIRISLE	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	001W39 59N31 150 km		412
245	G	FALLS LSTN 001E48 51N18	FC OT FALLS	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E48 51N18 150 km		412
179	G	FALMOUTH COASTGUARD 005W03 50N09	FC OT FALMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W03 50N09 180 km		410
201	G	FALMOUTH COASTGUARD 005W03 50N09	FC OT FALMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W03 50N09 180 km		411
246	G	FALMOUTH COASTGUARD 005W03 50N09	FC OT FALMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W03 50N09 180 km		412
303	G	FALMOUTH COASTGUARD 005W03 50N09	FC OT FALMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W03 50N09 180 km	1662.5000 kHz	414
304	G	FERRIS POINT LSTN 005W47 54N41	FC OT FERRIS	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W47 54N41 150 km		414

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
202	G	FLATHOLM LSTN 003W07 51N22	FC OT FLATHOLM	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	003W07 51N22 150 km	1632.5000 kHz	411
305	G	GUERNSEY 002W32 49N27	FC OT GUERNSEY	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002W32 49N27 100 km	1642.5000 kHz	414
142	G	GUERNSEY RADIO 002W31 49N27	FC CP GUERNSEY	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	002W31 49N27 150 km	2000 kHz	395
306	G	HAISBOROUGH 001E34 52N58	FC OT HAISBORO	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E34 52N58 150 km	1662.5000 kHz	414
307	G	HANOIS LSTN 002W42 49N26	FC OT HANOIS	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002W42 49N26 150 km	1662.5000 kHz	414
180	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W28 50N59 180 km	1627.5000 kHz	410
203	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W28 50N59 180 km		411
247	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W28 50N59 180 km		412
308	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W28 50N59 180 km		414
89	G	HEBRIDES RADIO 007W02 58N14	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	007W02 58N14 400 km	500 kHz	
98	G	HEBRIDES RADIO 007W02 58N14	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	007W02 58N14 320 km	2000 kHz	328
110	G	HEBRIDES RADIO 007W02 58N14	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	007W02 58N14 320 km	2000 kHz	398
123	G	HEBRIDES RADIO 007W02 58N14	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	007W02 58N14 320 km	2000 kHz	396
143	G	HEBRIDES RADIO 007W02 58N14	FC CP HEBRIDES	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W02 58N14 320 km	2000 kHz	395
240	G	HEBRIDES RADIO 007W02 58N14	FC CP HEBRIDES	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W02 58N14 320 km	1793.4000 kHz 2000 kHz	412
204	G	HELWICK LSTN 004W25 51N30	FC OT HELWICK	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004W25 51N30 150 km	1632.5000 kHz	411
181	G	HOLYHEAD COASTGUARD 004W38 53N19	FC OT HOLYHEAD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W38 53N19 180 km		410
205	G	HOLYHEAD COASTGUARD 004W38 53N19	FC OT HOLYHEAD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W38 53N19 180 km		411

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
248	G	HOLYHEAD COASTGUARD 004W38 53N19	FC OT HOLYHEAD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W38 53N19 180 km	1647.5000 kHz	412
309	G	HOLYHEAD COASTGUARD 004W38 53N19	FC OT HOLYHEAD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W38 53N19 180 km		414
182	G	HUMBER COASTGUARD 000W06 54N07	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W06 54N07 180 km		410
206	G	HUMBER COASTGUARD 000W06 54N07	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W06 54N07 180 km		411
249	G	HUMBER COASTGUARD 000W06 54N07	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W06 54N07 180 km		412
310	G	HUMBER COASTGUARD 000W06 54N07	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W06 54N07 180 km		414
916	G	HUMBER LSTN 000E21 53N36	FC OT HUMBER	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	000E21 53N36 150 km	1662.5000 kHz	414
60	G	HUMBER RADIO 000E17 53N20	FC CP GKZ	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	000E17 53N20 160 km	500 kHz	329
70	G	HUMBER RADIO 000E17 53N20	FC CP GKZ	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	000E17 53N20 160 km	500 kHz	397
80	G	HUMBER RADIO 000E17 53N20	FC CP GKZ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	000E17 53N20 160 km	484.0000 kHz 500 kHz	
99	G	HUMBER RADIO 000E17 53N20	FC CP GKZ	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	000E17 53N20 160 km	2000 kHz	328
111	G	HUMBER RADIO 000E17 53N20	FC CP GKZ	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	000E17 53N20 160 km	2000 kHz	398
144	G	HUMBER RADIO 000E17 53N20	FC CP HUMBER	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	000E17 53N20 160 km	1790.4000 kHz 2000 kHz	395
145	G	HUMBER RADIO 000E17 53N20	FC CP HUMBER	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	000E17 53N20 160 km	2000 kHz	395
146	G	HUMBER RADIO 000E17 53N20	FC CP HMBER	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	000E17 53N20 160 km	1793.4000 kHz 2000 kHz	403
250	G	HYSKEIR LTSN 006W41 56N58	FC OT HYSKEIR	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	006W41 56N58 150 km	1647.5000 kHz	412
252	G	I OF MAY LSTN 002W33 56N11	FC OT MAY I	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	002W33 56N11 150 km	1647.5000 kHz	412
61	G	ILFRACOMBE RADIO 004W07 51N11	FC CP GIL	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	004W07 51N11 160 km	500 kHz	329

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
71	G	ILFRACOMBE RADIO 004W07 51N11	FC CP GIL	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	004W07 51N11 160 km	500 kHz	397
81	G	ILFRACOMBE RADIO 004W07 51N11	FC CP GIL	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	004W07 51N11 160 km	500 kHz	10
100	G	ILFRACOMBE RADIO 004W07 51N11	FC CP GIL	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	004W07 51N11 160 km	2000 kHz	328
112	G	ILFRACOMBE RADIO 004W07 51N11	FC CP GIL	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	004W07 51N11 160 km	2000 kHz	398
147	G	ILFRACOMBE RADIO 004W07 51N11	FC CP ILFRACOM	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	004W07 51N11 160 km	2000 kHz	23
251	G	INCHKEITH LSTN 003W08 56N02	FC OT INCHKEIT	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	003W08 56N02 150 km		412
311	G	INNER DOWSING LSTN 000E33 53N19	FC OT INNERDOW	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	000E33 53N19 150 km	1662.5000 kHz	414
312	G	IS OF JETHOU 002W27 49N27	FC OT JETHOU	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002W27 49N27 100 km	1642.5000 kHz	414
148	G	JERSEY RADIO 002W12 49N14	FC CP JERSEY	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	002W12 49N14 150 km	1727.4000 kHz 2000 kHz	395
183	G	LANDS END COASTGUARD 005W41 50N02	FC OT LANDSEND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	005W41 50N02 360 km		410
207	G	LANDS END COASTGUARD 005W41 50N02	FC OT LANDSEND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	005W41 50N02 360 km		411
253	G	LANDS END COASTGUARD 005W41 50N02	FC OT LANDSEND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	005W41 50N02 360 km		412
313	G	LANDS END COASTGUARD 005W41 50N02	FC OT LANDSEND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	005W41 50N02 360 km		414
62	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W40 50N07 320 km	500 kHz	329
72	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W40 50N07 320 km	500 kHz	397
82	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	005W40 50N07 320 km	500 kHz	11
90	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W40 50N07 320 km	500 kHz	
101	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W40 50N07 320 km	2000 kHz	328

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
113	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W40 50N07 320 km	2000 kHz	398
124	G	LANDS END RADIO 005W40 50N07	FC CP GLD	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W40 50N07 320 km	2000 kHz	13
149	G	LANDS END RADIO 005W40 50N07	FC CP LANDSEND	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	005W40 50N07 320 km	2000 kHz	24
150	G	LANDS END RADIO 005W40 50N07	FC CP LANDSEND	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	005W40 50N07 320 km	1707.4000 kHz 2000 kHz	395
254	G	LANGNESS LTSN 004W37 54N04	FC OT LANGNESS	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	004W37 54N04 150 km		412
184	G	LIVERPOOL COASTGUARD 003W03 53N30	FC OT LIVERPOO	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W03 53N30 180 km	1637.5000 kHz	410
208	G	LIVERPOOL COASTGUARD 003W03 53N30	FC OT LIVERPOO	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W03 53N30 180 km	1637.5000 kHz	411
255	G	LIVERPOOL COASTGUARD 003W03 53N30	FC OT LIVERPOO	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W03 53N30 180 km	1647.5000 kHz	412
314	G	LIVERPOOL COASTGUARD 003W03 53N30	FC OT LIVERPOO	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W03 53N30 180 km		414
291	G	LONGSHIPS LSTN 001W36 55N38	FC OT LONGSHIP	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001W36 55N38 150 km	1652.5000 kHz	413
209	G	LONGSTONE LSTN 001W36 55N38	FC OT LONGSTON	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001W36 55N38 150 km	1632.5000 kHz	411
210	G	LUNDY SOUTH LSTN 004W39 51N09	FC OT LUNDYSOU	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004W39 51N09 150 km	1627.5000 kHz	411
315	G	MAIDENS LSTN 005W44 54N56	FC OT MAIDENS	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W44 54N56 150 km	1662.5000 kHz	414
316	G	MEW ISLAND LSTN 005W31 54N42	FC OT MEW	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W31 54N42 150 km	1662.5000 kHz	414
185	G	MILFORD HAVEN CGUARD 005W16 51N41	FC OT MILFORD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W16 51N41 180 km		410
211	G	MILFORD HAVEN CGUARD 005W16 51N41	FC OT MILFORD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W16 51N41 180 km		411
256	G	MILFORD HAVEN CGUARD 005W16 51N41	FC OT MILFORD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W16 51N41 180 km	1647.5000 kHz	412
317	G	MILFORD HAVEN CGUARD 005W16 51N41	FC OT MILFORD	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	005W16 51N41 180 km		414

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
125	G	MILLTOWN 003W14 57N40	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003W14 57N40 275 km	2000 kHz	399
126	G	MILLTOWN 003W14 57N40	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003W14 57N40 275 km	2000 kHz	400
127	G	MILLTOWN 003W14 57N40	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003W14 57N40 275 km	2000 kHz	401
151	G	MILLTOWN 003W14 57N40	FC CO MILLTOWN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	003W14 57N40 275 km	2000 kHz	404
152	G	MILLTOWN 003W14 57N40	FC CO MILLTOWN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	003W14 57N40 275 km	2000 kHz	405
153	G	MILLTOWN 003W14 57N40	FC CO MILLTOWN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	003W14 57N40 275 km	2000 kHz	406
154	G	MILLTOWN 003W14 57N40	FC CO MILLTOWN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	003W14 57N40 275 km	2000 kHz	407
186	G	MORAY COASTGUARD 001W46 57N30	FC OT MORAY	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001W46 57N30 180 km		410
212	G	MORAY COASTGUARD 001W46 57N30	FC OT MORAY	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001W46 57N30 180 km		411
257	G	MORAY COASTGUARD 001W46 57N30	FC OT MORAY	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001W46 57N30 180 km		412
318	G	MORAY COASTGUARD 001W46 57N30	FC OT MORAY	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001W46 57N30 180 km		414
258	G	MUCKLE FLUGGA LTSN 000W53 60N51	FC OT FLUGGA	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	000W53 60N51 150 km	1647.5000 kHz	412
259	G	MULL OF KINTYRE LTSN 005W45 55N19	FC OT KINTYRE	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	005W45 55N19 150 km		412
261	G	N RONALDSAY LTSN 002W23 59N23	FC OT NRONALDS	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	002W23 59N23 150 km	1647.5000 kHz	412
319	G	NEWARP LSTN 001E55 52N48	FC OT NEWARP	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E55 52N48 150 km	1662.5000 kHz	414
63	G	NITON RADIO 001W18 50N35	FC CP GNI	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001W18 50N35 160 km	500 kHz	329
73	G	NITON RADIO 001W18 50N35	FC CP GNI	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001W18 50N35 160 km	500 kHz	397
83	G	NITON RADIO 001W18 50N35	FC CP GNI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	001W18 50N35 160 km	464.0000 kHz 500 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
102	G	NITON RADIO 001W18 50N35	FC CP GNI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001W18 50N35 160 km	2000 kHz	328
114	G	NITON RADIO 001W18 50N35	FC CP GNI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001W18 50N35 160 km	2000 kHz	398
155	G	NITON RADIO 001W18 50N35	FC CP NITON	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W18 50N35 320 km	2000 kHz	29
156	G	NITON RADIO 001W18 50N35	FC CP NITON	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W18 50N35 320 km	1832.4000 kHz 2000 kHz	395
64	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001E25 51N22 240 km	500 kHz	329
74	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001E25 51N22 240 km	500 kHz	397
84	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	001E25 51N22 240 km	418.0000 kHz 500 kHz	
91	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	001E25 51N22 240 km	500 kHz	
103	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001E25 51N22 90 km	2000 kHz	328
115	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001E25 51N22 90 km	2000 kHz	398
128	G	NORTH FORELAND RADIO 001E25 51N22	FC CP GNF	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	001E25 51N22 240 km	2000 kHz	396
157	G	NORTH FORELAND RADIO 001E25 51N22	FC CP NORTHEFO	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001E25 51N22 120 km	2000 kHz	30
158	G	NORTH FORELAND RADIO 001E25 51N22	FC CP NORTHFOR	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001E25 51N22 120 km	1846.4000 kHz 2000 kHz	395
260	G	NORTH GOODWIN LSTN 001E34 51N20	FC OT NORTHGOO	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E34 51N20 150 km	1647.5000 kHz	412
92	G	NORWICK RADIO 000W45 60N29	FC CP	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	000W45 60N29 320 km	500 kHz	
104	G	NORWICK RADIO 000W45 60N29	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	000W45 60N29 320 km	2000 kHz	328
116	G	NORWICK RADIO 000W45 60N29	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	000W45 60N29 320 km	2000 kHz	398
129	G	NORWICK RADIO 000W45 60N29	FC CP	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	000W45 60N29 320 km	2000 kHz	396

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
159	G	NORWICK RADIO 000W45 60N29	FC CP NORWICK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	000W45 60N29 320 km	2000 kHz	31
160	G	NORWICK RADIO 000W45 60N29	FC CP NORWICK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	000W45 60N29 320 km	2000 kHz	32
262	G	OBAN DEPOT 005W29 56N25	FC OT OBAN	0900-1700 SIMPLEX	2K80J3E	X 26.0 dBW	ND	005W29 56N25 150 km	1647.5000 kHz	412
213	G	OUTER GABBARD LSTN 002E04 51N59	FC OT OUTERGAB	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002E04 51N59 150 km	1632.5000 kHz	411
187	G	PENTLAND COASTGUARD 002W57 58N59	FC OT PENTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W57 58N59 180 km		410
214	G	PENTLAND COASTGUARD 002W57 58N59	FC OT PENTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W57 58N59 180 km		411
263	G	PENTLAND COASTGUARD 002W57 58N59	FC OT PENTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W57 58N59 180 km		412
320	G	PENTLAND COASTGUARD 002W57 58N59	FC OT PENTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W57 58N59 180 km		414
264	G	PENTLAND SKERRIES 002W55 58N41	FC OT PENTLAND	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	002W55 58N41 150 km	1647.5000 kHz	412
265	G	PLADDA LTSN 005W07 55N26	FC OT PLADDA	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	005W07 55N26 150 km	1647.5000 kHz	412
130	G	PORTLAND 002W27 50N51	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	002W27 50N51 275 km	2000 kHz	396
161	G	PORTLAND 002W27 50N31	FC CO PORTLAND	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	002W27 50N31 275 km	2000 kHz	395
188	G	PORTLAND COASTGUARD 002W25 50N33	FC OT PORTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W25 50N33 180 km		410
215	G	PORTLAND COASTGUARD 002W25 50N33	FC OT PORTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W25 50N33 180 km		411
266	G	PORTLAND COASTGUARD 002W25 50N33	FC OT PORTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W25 50N33 180 km		412
321	G	PORTLAND COASTGUARD 002W25 50N33	FC OT PORTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	002W25 50N33 180 km		414
65	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W07 54N51 240 km	500 kHz	329
75	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W07 54N51 240 km	500 kHz	397

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
85	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	005W07 54N51 240 km	472.0000 kHz 500 kHz	
93	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	005W07 54N51 240 km	500 kHz	
105	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W07 54N51 240 km	2000 kHz	328
117	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W07 54N51 240 km	2000 kHz	398
131	G	PORTPATRICK RADIO 005W07 54N51	FC CP GPK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W07 54N51 240 km	2000 kHz	396
162	G	PORTPATRICK RADIO 005W07 54N51	FC CP PORTPATR	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	005W07 54N51 240 km	1790.4000 kHz 2000 kHz	395
163	G	PORTPATRICK RADIO 005W07 54N51	FC CP PORTPATR	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	005W07 54N51 240 km	1793.4000 kHz 2000 kHz	395
322	G	RATHLIN EAST LSTN 006W10 55N18	FC OT RATHLIN	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W10 55N18 150 km		414
267	G	RINNS OF ISLAY LTSN 006W31 55N40	FC OT RINNS	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	006W31 55N40 150 km	1647.5000 kHz	412
292	G	ROUND ISLAND LSTN 006W19 49N58	FC OT ROUNDISL	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W19 49N58 150 km	1652.5000 kHz	413
323	G	ROYAL SOVEREIGN LSTN 000E26 50N43	FC OT ROYALSOV	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	000E26 50N43 150 km	1662.5000 kHz	414
268	G	RUBHA REIDH LTSN 005W49 57N51	FC OT RUBH RE	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	005W49 57N51 150 km		412
269	G	S ABBS LSTN 002W08 55N55	FC OT S ABBS	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	002W08 55N55 150 km	1647.5000 kHz	412
270	G	SANDA LTSN 005W35 55N17	FC OT SANDA	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	005W35 55N17 150 km	1647.5000 kHz	412
216	G	SCARWEATHER LSTN 003W56 51N26	FC OT SCAREWEA	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	003W56 51N26 150 km	1632.5000 kHz	411
293	G	SEVENSTONES LSTN 006W04 50N03	FC OT SEVENSTO	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W04 50N03 150 km	1652.5000 kHz	413
189	G	SHETLAND COASTGUARD 001W08 60N09	FC OT SHETLAND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W08 60N09 360 km		410
217	G	SHETLAND COASTGUARD 001W08 60N09	FC OT SHETLAND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W08 60N09 360 km		411

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
271	G	SHETLAND COASTGUARD 001W08 60N09	FC OT SHETLAND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W08 60N09	360 km	1647.5000 kHz	412
324	G	SHETLAND COASTGUARD 001W08 60N09	FC OT SHETLAND	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W08 60N09	360 km		414
190	G	SHOREHAM COASTGUARD 000W15 50N49	FC OT SHOREHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W15 50N49	180 km		410
218	G	SHOREHAM COASTGUARD 000W15 50N49	FC OT SHOREHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W15 50N49	180 km		411
272	G	SHOREHAM COASTGUARD 000W15 50N49	FC OT SHOREHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W15 50N49	180 km		412
325	G	SHOREHAM COASTGUARD 000W15 50N49	FC OT SHOREHAM	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	000W15 50N49	180 km	1662.5000 kHz	414
273	G	SKERRIES LSTN 004W36 53N25	FC OT SKERRIES	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004W36 53N25	150 km	1647.5000 kHz	412
274	G	SKERRYVORE LTSN 007W07 56N19	FC OT SKERRYVO	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	007W07 56N19	150 km	1647.5000 kHz	412
275	G	SKOKHOLM LSTN 005W17 51N41	FC OT SKOKHOLM	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W17 51N41	150 km	1647.5000 kHz	412
276	G	SMALLS LSTN 005W40 51N43	FC OT SMALLS	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W40 51N43	150 km	1647.5000 kHz	412
326	G	SMITHS KNOLL LSTN 002E18 52N43	FC OT SMITHSKN	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002E18 52N43	150 km	1662.5000 kHz	414
277	G	SOUTH BISHOP LSTN 005W24 51N51	FC OT SOUTHBIS	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W24 51N51	150 km	1647.5000 kHz	412
278	G	SOUTH GOODWIN LSTN 001E28 51N07	FC OT SOUTHGOO	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E28 51N07	150 km	1647.5000 kHz	412
327	G	SOUTH ROCK LSTN 005W22 54N24	FC OT SOUTHRCK	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W22 54N24	150 km	1662.5000 kHz	414
132	G	ST EVAL 005W00 50N28	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W00 50N28	275 km	2000 kHz	399
133	G	ST EVAL 005W00 50N28	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W00 50N28	275 km	2000 kHz	400
134	G	ST EVAL 005W00 50N28	FC CO	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W00 50N28	275 km	2000 kHz	401
164	G	ST EVAL 005W00 50N28	FC CO ST EVAL	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W00 50N28	275 km	2000 kHz	404

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
165	G	ST EVAL 005W00 50N28	FC CO ST EVAL	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W00 50N28 275 km	2000 kHz	405
166	G	ST EVAL 005W00 50N28	FC CO ST EVAL	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W00 50N28 275 km	2000 kHz	406
167	G	ST EVAL 005W00 50N28	FC CO ST EVAL	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W00 50N28 275 km	2000 kHz	407
219	G	ST GOWAN LSTN 004W59 51N30	FC OT ST GOWAN	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004W59 51N30 150 km		411
66	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	002W13 56N57 240 km	500 kHz	329
76	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	002W13 56N57 240 km	500 kHz	397
86	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	002W13 56N57 240 km	458.0000 kHz 500 kHz	
94	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	002W13 56N57 240 km	500 kHz	
106	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	002W13 56N57 240 km	2000 kHz	328
118	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	002W13 56N57 240 km	2000 kHz	398
135	G	STONEHAVEN RADIO 002W13 56N57	FC CP GND	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	002W13 56N57 240 km	1618.0000 kHz 2000 kHz	396
168	G	STONEHAVEN RADIO 002W13 56N57	FC CP STONEHAV	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	002W13 56N57 240 km	2000 kHz	395
169	G	STONEHAVEN RADIO 002W13 56N57	FC CP STONEHAV	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	002W13 56N57 240 km	1734.4000 kHz 2000 kHz	395
170	G	STONEHAVEN RADIO 002W13 56N57	FC CP STONEHAV	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	002W13 56N57 240 km	1790.4000 kHz 2000 kHz	395
171	G	STONEHAVEN RADIO 002W13 56N57	FC CP STONEHAV	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	002W13 56N57 240 km	1793.4000 kHz 2000 kHz	403
191	G	STORNOWAY COASTGUARD 006W21 58N13	FC OT STORNOWA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	006W21 58N13 180 km		410
220	G	STORNOWAY COASTGUARD 006W21 58N13	FC OT STORNOWA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	006W21 58N13 180 km		411
279	G	STORNOWAY COASTGUARD 006W21 58N13	FC OT STORNOWA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	006W21 58N13 180 km	1647.5000 kHz	412

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
328	G	STORNOWAY COASTGUARD 006W21 58N13	FC OT STORNOWA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	006W21 58N13 180 km		414
280	G	STROMA LTSN 003W07 58N42	FC OT STROMA	0000-2400 SIMPLEX	2K80J3E	X 23.0 dBW	ND	003W07 58N42 150 km	1647.5000 kHz	412
281	G	STROMNESS 003W18 58N58	FC OT STROMNES	0900-1700 SIMPLEX	2K80J3E	X 26.0 dBW	ND	003W18 58N58 150 km	1647.5000 kHz	412
192	G	SWANSEA COASTGUARD 003W58 51N34	FC OT SWANSEA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W58 51N34 180 km		410
221	G	SWANSEA COASTGUARD 003W58 51N34	FC OT SWANSEA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W58 51N34 180 km	1632.5000 kHz	411
282	G	SWANSEA COASTGUARD 003W58 51N34	FC OT SWANSEA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W58 51N34 180 km		412
329	G	SWANSEA COASTGUARD 003W58 51N34	FC OT SWANSEA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W58 51N34 180 km		414
193	G	THAMES COASTGUARD 001E17 51N51	FC OT THAMES	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E17 51N51 180 km		410
222	G	THAMES COASTGUARD 001E17 51N51	FC OT THAMES	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E17 51N51 180 km	1632.5000 kHz	411
283	G	THAMES COASTGUARD 001E17 51N51	FC OT THAMES	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E17 51N51 180 km		412
330	G	THAMES COASTGUARD 001E17 51N51	FC OT THAMES	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E17 51N51 180 km		414
284	G	TONGUE LSTN 001E23 51N30	FC OT TONGUE	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E23 51N30 150 km	1647.5000 kHz	412
285	G	TURNBERRY 004W50 55N19	FC OT TURNBERR	0900-1700 SIMPLEX	2K80J3E	X 23.0 dBW	ND	004W50 55N19 150 km	1647.5000 kHz	412
194	G	TYNE TEES COASTGUARD 001W33 55N19	FC OT TYNETEES	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W33 55N19 360 km		410
223	G	TYNE TEES COASTGUARD 001W33 55N19	FC OT TYNETEES	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W33 55N19 360 km		411
286	G	TYNE TEES COASTGUARD 001W33 55N19	FC OT TYNETEES	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W33 55N19 360 km		412
331	G	TYNE TEES COASTGUARD 001W33 55N19	FC OT TYNETEES	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	001W33 55N19 360 km		414
287	G	VARNE LSTN 001E24 51N01	FC OT VARNE	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001E24 51N01 150 km	1647.5000 kHz	412

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
67	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	003W06 58N26 320 km	500 kHz	329
77	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	003W06 58N26 320 km	500 kHz	397
87	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	003W06 58N26 320 km	432.0000 kHz 500 kHz	
95	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	003W06 58N26 320 km	500 kHz	
107	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003W06 58N26 320 km	2000 kHz	328
119	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003W06 58N26 320 km	2000 kHz	398
136	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003W06 58N26 320 km	1672.0000 kHz 2000 kHz	396
137	G	WICK RADIO 003W06 58N26	FC CP GKR	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003W06 58N26 320 km	1615.0000 kHz 2000 kHz	396
172	G	WICK RADIO 003W06 58N26	FC CP WICK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	003W06 58N26 320 km	1707.4000 kHz 2000 kHz	395
173	G	WICK RADIO 003W06 58N26	FC CP WICK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	003W06 58N26 320 km	1828.4000 kHz	395
174	G	WICK RADIO 003W06 58N26	FC CP WICK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	003W06 58N26 320 km	1793.4000 kHz 2000 kHz	403
294	G	WOLF ROCK LSTN 005W48 49N56	FC OT WOLFROCK	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W48 49N56 150 km	1652.5000 kHz	413
195	G	YARMOUTH COASTGUARD 001E19 52N56	FC OT YARMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E19 52N56 180 km		410
224	G	YARMOUTH COASTGUARD 001E19 52N56	FC OT YARMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E19 52N56 180 km		411
288	G	YARMOUTH COASTGUARD 001E19 52N56	FC OT YARMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E19 52N56 180 km		412
332	G	YARMOUTH COASTGUARD 001E19 52N56	FC OT YARMOUTH	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E19 52N56 180 km	1662.5000 kHz	414

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		GAB		**Gabonaise (République) Gabonese Republic Gabonesa (República)**							
2226	GAB	LIBREVILLE 009E26 00N25	FC CP TRA	0600-1800 DUPLEX	100HA1A	X 30.0 dBW	ND	009E26 00N25	500 km	429.0000 kHz	
2227	GAB	LIBREVILLE 009E26 00N25	FC CP TRA	0600-1800 DUPLEX	100HA1A	X 30.0 dBW	ND	009E26 00N25	500 km	476.0000 kHz	
2228	GAB	LIBREVILLE 009E26 00N25	FC CP TRA	0600-1800 DUPLEX	100HA1A	X 30.0 dBW	ND	009E26 00N25	500 km	444.0000 kHz	
2229	GAB	LIBREVILLE 009E26 00N25	FC CR RADIO	0000-2400 DUPLEX	2K80J3E	X 20.0 dBW	ND	009E26 00N25	250 km	1757.0000 kHz	
2230	GAB	LIBREVILLE 009E26 00N25	FC CR RADIO	0600-1800 DUPLEX	2K80J3E	X 20.0 dBW	ND	009E26 00N25	250 km	1743.0000 kHz	
		GIB		**Gibraltar**							
50	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W21 36N07	320 km	500 kHz	397
51	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W21 36N07	320 km	500 kHz	329
52	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	005W21 36N07	320 km	464.0000 kHz 500 kHz	415
53	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W21 36N07	320 km	2000 kHz	328
54	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W21 36N07	320 km	2000 kHz	398
55	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W21 36N07	320 km	2000 kHz	402
56	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W21 36N07	200 km	2000 kHz	408

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
57	GIB G	GIBRALTAR 005W21 36N07	FC CP ZDK	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W21 36N07 200 km	2000 kHz	409

GRC

Grèce
Greece
Grecia

1991	GRC	ASPROPYRGOS 023E35 38N02	FC CO SXE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	023E35 38N02 370 km	470.0000 kHz	1300
1992	GRC	ASPROPYRGOS 023E35 38N02	FC CO SXE	0000-2400 DUPLEX	300HF1B	X 27.0 dBW	ND	023E35 38N02 370 km	500 kHz	1300
1993	GRC	ASPROPYRGOS 023E35 38N02	FC CO SXE	0000-2400 DUPLEX	300HF1B	X 27.0 dBW	ND	023E35 38N02 370 km	2000 kHz	1300
1994	GRC	ASPROPYRGOS 023E35 38N02	FC CO SXE	0000-2400 DUPLEX	2K70J3E	X 30.0 dBW	ND	023E35 38N02 370 km	1905.4000 kHz	1300
1979	GRC	ATHINAI 023E53 38N00	FC CP SVA41	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	023E53 38N00 370 km	1681.4000 kHz	1300
1980	GRC	ATHINAI 023E53 38N00	FC CP SVA42	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	023E53 38N00 370 km	1683.4000 kHz	1300
1999	GRC	ATHINAI 023E53 38N00	FC CP SVA21	0000-2400 DUPLEX	100HA1AAN	X 31.8 dBW	ND	023E53 38N00 370 km	418.0000 kHz	1300
2000	GRC	ATHINAI 023E53 38N00	FC CP SVA22	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	023E53 38N00 370 km	464.0000 kHz	1300
2001	GRC	ATHINAI 023E53 38N00	FC CP SVA23	0000-2400 DUPLEX	100HA1AAN	X 27.0 dBW	ND	023E53 38N00 370 km	500 kHz	1300
2002	GRC	ATHINAI 023E53 38N00	FC CP SVA31	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	023E53 38N00 370 km	500 kHz	1300
2003	GRC	ATHINAI 023E53 38N00	FC CP SVA32	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	023E53 38N00 370 km	500 kHz	1300
2004	GRC	ATHINAI 023E53 38N00	FC CP SVA51	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	023E53 38N00 370 km	2000 kHz	1300
1989	GRC	CHIOS 026E08 38N19	FC CP SVX41	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	026E08 38N19 370 km	1818.4000 kHz	1300
1990	GRC	CHIOS 026E08 38N19	FC CP SVX42	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	026E08 38N19 370 km	1821.4000 kHz	1300

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2018	GRC	CHIOS 026E08 38N19	FC CP SVX51	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	026E08 38N19 370 km	2000 kHz	1300
1985	GRC	HERAKLION 025E45 35N19	FC CP SVH41	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E45 35N19 370 km	1743.4000 kHz	1300
1986	GRC	HERAKLION 025E45 35N19	FC CP SVH42	0000-2400 DUPLEX	2K70J3EJN	X 33.0 dBW	ND	025E45 35N19 370 km	1674.4000 kHz	1300
2013	GRC	HERAKLION 025E45 35N19	FC CP SVH21	0000-2400 DUPLEX	100HA1AAN	X 31.8 dBW	ND	025E45 35N19 370 km	432.0000 kHz	1300
2014	GRC	HERAKLION 025E45 35N19	FC CP SVH22	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	025E45 35N19 370 km	443.0000 kHz	1300
2015	GRC	HERAKLION 025E45 35N19	FC CP SVH31	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	025E45 35N19 370 km	500 kHz	1300
2016	GRC	HERAKLION 025E45 35N19	FC CP SVH51	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	025E45 35N19 370 km	2000 kHz	1300
1983	GRC	KERKYRA 019E54 39N37	FC CP SVK41	0000-2400 DUPLEX	2K70J3EJN	X 33.0 dBW	ND	019E54 39N37 370 km	1801.4000 kHz	1300
1984	GRC	KERKYRA 019E54 39N37	FC CP SVK42	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	019E54 39N37 370 km	1697.4000 kHz	1300
2009	GRC	KERKYRA 019E54 39N37	FC CP SVK21	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	019E54 39N37 370 km	421.0000 kHz	1300
2010	GRC	KERKYRA 019E54 39N37	FC CP SVK22	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	019E54 39N37 370 km	455.0000 kHz	1300
2011	GRC	KERKYRA 019E54 39N37	FC CP SVK31	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	019E54 39N37 370 km	500 kHz	1300
2012	GRC	KERKYRA 019E54 39N37	FC CP SVK51	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	019E54 39N37 370 km	2000 kHz	1300
1981	GRC	LIMNOS 025E11 39N54	FC CP SVL41	0000-2400 DUPLEX	2K70J3EJN	X 33.0 dBW	ND	025E11 39N54 370 km	1686.4000 kHz	1300
1982	GRC	LIMNOS 025E11 39N54	FC CP SVL42	0000-2400 DUPLEX	2K70J3EJN	X 33.0 dBW	ND	025E11 39N54 370 km	1798.4000 kHz	1300
2005	GRC	LIMNOS 025E11 39N54	FC CP SVL21	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	025E11 39N54 370 km	428.0000 kHz	1300
2006	GRC	LIMNOS 025E11 39N54	FC CP SVL22	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	025E11 39N54 370 km	516.0000 kHz	1300
2007	GRC	LIMNOS 025E11 39N54	FC CP SVL31	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	025E11 39N54 370 km	500 kHz	1300

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2008	GRC	LIMNOS 025E11 39N54	FC CP SVL51	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	025E11 39N54 370 km	2000 kHz	1300
2023	GRC	MOURNIES KRITIS 024E01 35N29	FC CO SXH	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	024E01 35N29 370 km	449.0000 kHz	1300
2024	GRC	MOURNIES KRITIS 024E01 35N29	FC CO SXH	0000-2400 DUPLEX	300HF1BCN	X 30.0 dBW	ND	024E01 35N29 370 km	500 kHz	1300
1995	GRC	PIRAEUS 023E40 37N58	FC CO SXE2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	023E40 37N58 370 km	500 kHz	1300
1996	GRC	PIRAEUS 023E40 37N58	FC CO SXE2	0000-2400 DUPLEX	300HF1B	X 27.0 dBW	ND	023E40 37N58 370 km	500 kHz	1300
1997	GRC	PIRAEUS 023E40 37N58	FC CO SXE2	0000-2400 DUPLEX	300HF1B	X 27.0 dBW	ND	023E40 37N58 370 km	2000 kHz	1300
1998	GRC	PIRAEUS 023E40 37N58	FC CO SXE2	0000-2400 DUPLEX	2K70J3E	X 27.0 dBW	ND	023E40 37N58 370 km	1608.0000 kHz	1300
1987	GRC	RHODOS 028E12 36N26	FC CP SVR41	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	028E12 36N26 370 km	1825.4000 kHz	1300
1988	GRC	RHODOS 028E12 36N26	FC CP SVR42	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	028E12 36N26 370 km	1671.4000 kHz	1300
2017	GRC	RHODOS 028E12 36N26	FC CP SVR51	0000-2400 DUPLEX	304HF1BCN	X 27.0 dBW	ND	028E12 36N26 370 km	2000 kHz	1300
2019	GRC	SPATA ATTIKIS 023E55 37N58	FC CO SXA	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	023E55 37N58 370 km	440.0000 kHz	1300
2020	GRC	SPATA ATTIKIS 023E55 37N58	FC CO SXA	0000-2400 DUPLEX	100HA1AAN	X 37.0 dBW	ND	023E55 37N58 370 km	517.0000 kHz	1300
2021	GRC	SPATA ATTIKIS 023E55 37N58	FC CO SXA	0000-2400 DUPLEX	300HF1BCN	X 30.0 dBW	ND	023E55 37N58 370 km	500 kHz	1300
2022	GRC	SPATA ATTIKIS 023E55 37N58	FC CO SXA	0000-2400 DUPLEX	300HF1BCN	X 30.0 dBW	ND	023E55 37N58 370 km	500 kHz	1300

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
449	HOL	AMSTERDAM 004E51 52N22	FC CO PBA3	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004E51 52N22 180 km	1699.4000 kHz	
432	HOL	DEN HELDER 004E45 52N55	FC CO	0000-2400 DUPLEX	280HF1BCN	X 30.0 dBW	ND	004E45 52N55 500 km		82
437	HOL	DEN HELDER 004E45 52N55	FC CO	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	004E45 52N55 500 km		
446	HOL	DEN HELDER 004E45 52N55	FC CO PBB3	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004E45 52N55 180 km	1720.4000 kHz	
448	HOL	DEN HELDER 004E45 52N55	FC CO PBB3	0000-2400 SIMPLEX	2K80J3EJN	X 30.0 dBW	ND	004E45 52N55 360 km	1723.4000 kHz	
439	HOL	HOEK VAN HOLLAND 004E07 52N00	FC CO	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	004E07 52N00 100 km	1643.9000 kHz	
441	HOL	IJMUIDEN 004E35 52N28	FC CO	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	004E35 52N28 100 km		
435	HOL	NES 006E04 53N24	FC CP PCH	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	006E04 53N24 500 km		
444	HOL	NES 006E04 53N24	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 36.0 dBW	ND	006E04 53N24 500 km		
431	HOL	OUDDORP 003E53 51N48	FC CO	0000-2400 DUPLEX	280HF1BCN	X 30.0 dBW	ND	003E53 51N48 500 km		82
436	HOL	OUDDORP 003E53 51N48	FC CO	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	003E53 51N48 500 km		
447	HOL	OUDDORP 003E53 51N48	FC CO	0000-2400 DUPLEX	2K80J3EJN	X 20.0 dBW	ND	003E53 51N48 180 km		
429	HOL	SCHEVENINGEN 004E15 52N06	FC CP PCH	0000-2400 DUPLEX	280HF1BCN	X 30.0 dBW	ND	004E15 52N06 500 km	421.0000 kHz	82
430	HOL	SCHEVENINGEN 004E15 52N06	FC CP PCH	0000-2400 DUPLEX	280HF1BCN	X 30.0 dBW	ND	004E15 52N06 500 km	461.0000 kHz	82
433	HOL	SCHEVENINGEN 004E15 52N06	FC CP PCH	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	004E15 52N06 500 km		

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
434	HOL	SCHEVENINGEN	004E15 52N06	FC CP PCH	0000-2400 DUPLEX	280HF1BCN	X 36.0 dBW	ND	004E15 52N06	500 km		
442	HOL	SCHEVENINGEN	004E15 52N06	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 36.0 dBW	ND	004E15 52N06	500 km	1762.4000 kHz	
443	HOL	SCHEVENINGEN	004E15 52N06	FC CP	0000-2400 DUPLEX	2K80J3EJN	X 36.0 dBW	ND	004E15 52N06	500 km	1765.4000 kHz	
440	HOL	TERSCHELLING LSTN	005E13 53N22	FC CO	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	005E13 53N22	300 km	1658.9000 kHz	
438	HOL	VLISSINGEN	003E37 51N27	FC CO	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	003E37 51N27	100 km	1628.9000 kHz	
445	HOL	VLISSINGEN	003E37 51N27	FC CO	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	003E37 51N27	180 km		

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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
620	I	ANCONA	013E28 43N36	FC CP IPA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	013E28 43N36	600 km	489.0000 kHz	
621	I	ANCONA	013E28 43N36	FC CP IPA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	013E28 43N36	600 km		
622	I	ANCONA	013E28 43N36	FC CP IPA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	013E28 43N36	600 km		
646	I	ANCONA	013E31 43N37	FC CO ICA	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	013E31 43N37	380 km	500 kHz	
656	I	ANCONA	013E28 43N36	FC CP IPA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E28 43N36	600 km	500 kHz	
657	I	ANCONA	013E28 43N36	FC CP IPA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E28 43N36	600 km	500 kHz	
658	I	ANCONA	013E28 43N36	FC CP IPA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E28 43N36	600 km	500 kHz	
684	I	ANCONA	013E31 43N37	FC CO ICA	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	013E31 43N37	400 km	2000 kHz	
711	I	ANCONA	013E31 43N37	FC CO ICA	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	013E31 43N37	380 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
913	I	ANCONA 013E28 43N36	FC CP IPA	0000-2400 SIMPLEX	304HF1B	X 33.0 dBW	ND	013E28 43N36 600 km	500 kHz	49
914	I	ANCONA 013E28 43N36	FC CP IPA	0000-2400 SIMPLEX	304HF1B	X 33.0 dBW	ND	013E28 43N36 600 km	2000 kHz	50
691	I	ANCONA RADIO 013E28 43N36	FC CP IPA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E28 43N36 600 km	2000 kHz	
719	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E18 43N36 400 km		
720	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E18 46N36 400 km		
721	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E18 43N36 400 km		
722	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E18 46N36 400 km		
723	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E18 43N36 400 km		
724	I	ANCONA RADIO 013E18 43N36	FC CP IPA	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E18 46N36 400 km		
623	I	AUGUSTA 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	015E13 37N13 600 km	429.0000 kHz	
624	I	AUGUSTA 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	015E13 37N13 600 km	524.0000 kHz	
625	I	AUGUSTA 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	015E13 37N13 600 km		
659	I	AUGUSTA 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	015E13 37N13 600 km	500 kHz	
660	I	AUGUSTA 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	015E13 37N13 600 km	500 kHz	
661	I	AUGUSTA 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	015E13 37N13 600 km	500 kHz	
692	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	015E13 37N13 600 km	2000 kHz	
725	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	015E13 37N13 400 km	1641.4000 kHz	
726	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	015E13 37N13 400 km	1641.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
727	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	015E13 37N13 400 km	1644.4000 kHz	
728	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	015E13 37N13 400 km	1644.4000 kHz	
729	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	015E13 37N13 400 km		
730	I	AUGUSTA RADIO 015E13 37N13	FC CP IQA	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	015E13 37N13 400 km		
626	I	BARI 017E25 40N26	FC CP IPB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	017E25 40N26 600 km	432.0000 kHz	
627	I	BARI 017E25 40N26	FC CP IPB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	017E25 40N26 600 km		
628	I	BARI 017E25 40N26	FC CP IPB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	017E25 40N26 600 km		
662	I	BARI 017E25 40N26	FC CP IPB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	017E25 40N26 600 km	500 kHz	
663	I	BARI 017E25 40N26	FC CP IPB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	017E25 40N26 600 km	500 kHz	
664	I	BARI 017E25 40N26	FC CP IPB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	017E25 40N26 600 km	500 kHz	
693	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	016E59 41N05 600 km	2000 kHz	
731	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	016E59 41N05 400 km	1769.4000 kHz	
732	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	016E59 41N05 400 km	1769.4000 kHz	
733	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	016E59 41N05 400 km	1772.4000 kHz	
734	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	016E59 41N05 400 km	1772.4000 kHz	
735	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	016E59 41N05 400 km	2577.4000 kHz	
736	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	016E59 41N05 400 km	2577.4000 kHz	
737	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	016E59 41N05 400 km		

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
738	I	BARI RADIO 016E59 41N05	FC CP IPB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	016E59 41N05 400 km		
629	I	CAGLIARI 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	009E07 39N15 600 km	472.0000 kHz	
630	I	CAGLIARI 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	009E07 39N15 600 km	489.0000 kHz	
631	I	CAGLIARI 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	009E07 39N15 600 km	524.0000 kHz	
665	I	CAGLIARI 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	009E07 39N15 600 km	500 kHz	
666	I	CAGLIARI 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	009E07 39N15 600 km	500 kHz	
667	I	CAGLIARI 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	009E07 39N15 600 km	500 kHz	
694	I	CAGLIARI 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	009E07 39N15 600 km	2000 kHz	
739	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	009E07 39N15 400 km	1720.4000 kHz	
740	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	009E07 39N15 400 km	1720.4000 kHz	
741	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	009E07 39N15 400 km	1723.4000 kHz	
742	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	009E07 39N15 400 km	1723.4000 kHz	
743	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	009E07 39N15 400 km		
744	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	009E07 39N15 400 km		
745	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	009E07 39N15 400 km		
746	I	CAGLIARI RADIO 009E07 39N15	FC CP IDC	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	009E07 39N15 400 km		
612	I	CAMOGLI 009E05 44N23	FC CV IQJ	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	009E05 44N23 80 km	450.0000 kHz	
695	I	CIVITAVECCHIA RADIO 011E49 42N01	FC CP IPD	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	011E49 42N01 600 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
747	I	CIVITAVECCHIA RADIO 011E49 42N01	FC CP IPD	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	011E49 42N01	400 km	1706.4000 kHz	
748	I	CIVITAVECCHIA RADIO 011E49 42N01	FC CP IPD	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	011E49 42N01	400 km	1706.4000 kHz	
749	I	CIVITAVECCHIA RADIO 011E49 42N01	FC CP IPD	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	011E49 42N01	400 km	1703.4000 kHz	
750	I	CIVITAVECCHIA RADIO 011E49 42N01	FC CP IPD	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	011E49 42N01	400 km	1703.4000 kHz	
696	I	CROTONE RADIO 017E08 39N03	FC CP IPC	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	017E08 39N03	600 km	2000 kHz	
751	I	CROTONE RADIO 017E08 39N03	FC CP IPC	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	017E08 39N03	400 km	1713.4000 kHz	
752	I	CROTONE RADIO 017E08 39N03	FC CP IPC	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	017E08 39N03	400 km	1713.4000 kHz	
753	I	CROTONE RADIO 017E08 39N03	FC CP IPC	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	017E08 39N03	400 km	1716.4000 kHz	
754	I	CROTONE RADIO 017E08 39N03	FC CP IPC	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	017E08 39N03	400 km	1716.4000 kHz	
632	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	008E56 44N25	600 km	487.0000 kHz	
633	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	008E56 44N25	600 km	516.0000 kHz	
634	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	008E56 44N25	600 km		
635	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	008E56 44N25	600 km		
668	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	008E56 44N25	600 km	500 kHz	
669	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	008E56 44N25	600 km	500 kHz	
670	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	008E56 44N25	600 km	500 kHz	
671	I	GENOVA 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	008E56 44N25	600 km	500 kHz	
697	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	008E56 44N25	600 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
755	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E56 44N25 400 km	1665.4000 kHz	
756	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E56 44N25 400 km	1665.4000 kHz	
757	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E56 44N25 400 km	1668.4000 kHz	
758	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E56 44N25 400 km	1668.4000 kHz	
759	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E56 44N25 400 km		
760	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E56 44N25 400 km		
761	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E56 44N25 400 km		
762	I	GENOVA RADIO 008E56 44N25	FC CP ICB	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E56 44N25 400 km		
613	I	GRADO 013E23 40N41	FC CV IQV	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	013E23 40N41 80 km		
647	I	LA MADDALENA 009E20 41N13	FC CO ICH	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	009E20 41N13 380 km	500 kHz	
689	I	LA MADDALENA 009E20 41N13	FC CO ICH	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	009E20 41N13 400 km	2000 kHz	
714	I	LA MADDALENA 009E20 41N13	FC CO ICH	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	009E20 41N13 380 km	2000 kHz	
648	I	LA SPEZIA 009E43 44N06	FC CO IES	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	009E43 44N06 380 km	500 kHz	
649	I	LA SPEZIA 009E43 44N06	FC CO IES	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	009E43 44N06 380 km	500 kHz	
690	I	LA SPEZIA 009E43 44N06	FC CO ICS	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	009E43 44N06 400 km	2000 kHz	
715	I	LA SPEZIA 009E43 44N06	FC CO ICS	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	009E43 44N06 380 km	2000 kHz	
716	I	LA SPEZIA 009E43 44N06	FC CO ICS	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	009E43 44N06 380 km	2000 kHz	
698	I	LAMPEDUSA RADIO 012E36 35N30	FC CP IQN	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E36 35N30 600 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
763	I	LAMPEDUSA RADIO 012E36 35N30	FC CP IQN	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E36 35N30 400 km	1736.4000 kHz	
764	I	LAMPEDUSA RADIO 012E36 35N30	FC CP IQN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E36 35N30 400 km	1736.4000 kHz	
765	I	LAMPEDUSA RADIO 012E36 35N30	FC CP IQN	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E36 35N30 400 km	1739.4000 kHz	
766	I	LAMPEDUSA RADIO 012E36 35N30	FC CP IQN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E36 35N30 400 km	1739.4000 kHz	
699	I	LIVORNO RADIO 010E21 43N29	FC CP IPL	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	010E11 43N29 600 km	2000 kHz	
767	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	010E11 43N29 400 km		
768	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	010E11 43N29 400 km		
769	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	010E11 43N29 400 km		
770	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	010E11 43N29 400 km		
771	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	010E11 43N29 400 km		
772	I	LIVORNO RADIO 010E11 43N29	FC CP IPL	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	010E11 43N29 400 km		
700	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E34 37N38 600 km	2000 kHz	
773	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E34 37N38 400 km	1695.4000 kHz	
774	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E34 37N38 400 km	1695.4000 kHz	
775	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E34 37N38 400 km	1698.4000 kHz	
776	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E34 37N38 400 km	1698.4000 kHz	
777	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E34 37N38 400 km	2209.4000 kHz	
778	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E34 37N38 400 km	2209.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
779	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E34 37N38 400 km	2212.4000 kHz	
780	I	MAZARA VALLO RADIO 012E34 37N38	FC CP IQQ	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E34 37N38 400 km	2212.4000 kHz	
701	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	015E33 38N11 600 km	2000 kHz	
781	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	015E33 38N11 400 km	1797.4000 kHz	
782	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	015E33 38N11 400 km	1797.4000 kHz	
783	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	015E33 38N11 400 km	1800.4000 kHz	
784	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	015E33 38N11 400 km	1800.4000 kHz	
785	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	015E33 38N11 400 km		
786	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	015E33 38N11 400 km		
614	I	MOLFETTA 016E36 41N12	FC CV IEE	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	016E36 41N12 80 km		
636	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	014E14 40N50 600 km	435.0000 kHz	
637	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	014E14 40N50 600 km	524.0000 kHz	
638	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	014E14 40N50 600 km		
650	I	NAPOLI 014E14 40N42	FC CO ICN	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	014E14 40N42 380 km	500 kHz	
672	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	014E14 40N50 600 km	500 kHz	
673	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	014E14 40N50 600 km	500 kHz	
674	I	NAPOLI 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	014E14 40N50 600 km	500 kHz	
688	I	NAPOLI 014E14 40N42	FC CO ICN	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	014E14 40N42 400 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
717	I	NAPOLI 014E14 40N42	FC CO ICN	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	014E14 40N42 380 km	2000 kHz	
702	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	014E14 40N50 600 km	2000 kHz	
787	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	014E14 40N50 400 km	1633.4000 kHz	
788	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	014E14 40N50 400 km	1633.4000 kHz	
789	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	014E14 40N50 400 km	1636.4000 kHz	
790	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	014E14 40N50 400 km	1636.4000 kHz	
791	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	014E14 40N50 400 km	1676.4000 kHz	
792	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	014E14 40N50 400 km	1676.4000 kHz	
793	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	014E14 40N50 400 km	1679.4000 kHz	
794	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	014E14 40N50 400 km	1679.4000 kHz	
703	I	PALERMO RADIO 013E22 38N07	FC CP IPP	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E22 38N07 600 km	2000 kHz	
795	I	PALERMO RADIO 013E22 38N07	FC CP IPP	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E22 38N07 400 km	1703.4000 kHz	
796	I	PALERMO RADIO 013E22 38N07	FC CP IPP	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E22 38N07 400 km	1703.4000 kHz	
797	I	PALERMO RADIO 013E22 38N07	FC CP IPP	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E22 38N07 400 km	1706.4000 kHz	
798	I	PALERMO RADIO 013E22 38N07	FC CP IPP	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E22 38N07 400 km	1706.4000 kHz	
651	I	PALOMBARA 015E08 37N10	FC CO IGJ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	015E08 37N10 380 km	500 kHz	
687	I	PALOMBARA 015E08 37N10	FC CO IGJ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	015E08 37N10 400 km	2000 kHz	
718	I	PALOMBARA 015E08 37N10	FC CO IGJ	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	015E08 37N10 380 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
615	I	PESARO 012E55 43N54	FC CV IED	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	012E55 43N54 80 km		
704	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	008E23 40N50 600 km	2000 kHz	
799	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E23 40N50 400 km	1804.4000 kHz	
800	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E23 40N50 400 km	1804.4000 kHz	
801	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E23 40N50 400 km	1807.4000 kHz	
802	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E23 40N50 400 km	1807.4000 kHz	
803	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E23 40N50 400 km		
804	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E23 40N50 400 km		
639	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	012E31 41N48 600 km	519.0000 kHz	
640	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	012E31 41N48 600 km	524.0000 kHz	
641	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	012E31 41N48 600 km		
642	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	012E31 41N48 600 km		
652	I	ROMA 012E22 41N59	FC CO IDR	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	012E22 41N59 380 km	500 kHz	
653	I	ROMA 012E22 41N59	FC CO IDR	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	012E22 41N59 380 km	500 kHz	
675	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E31 41N48 600 km	500 kHz	
676	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E31 41N48 600 km	500 kHz	
677	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E31 41N48 600 km	500 kHz	
678	I	ROMA 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E31 41N48 600 km	500 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
682	I	ROMA 012E22 41N59	FC CO IDR	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	012E22 41N59 400 km	2000 kHz	
683	I	ROMA 012E22 41N59	FC CO IDR	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	012E22 41N59 400 km	2000 kHz	
710	I	ROMA 012E22 41N59	FC CO IDR	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	012E22 41N59 380 km	2000 kHz	
705	I	ROMA RADIO 012E31 41N48	FC CP IAR	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E31 41N48 600 km	2000 kHz	
706	I	S BENEDETTO TRONTO 013E52 42N57	FC CP IQP	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E52 42N57 600 km	2000 kHz	
805	I	S BENEDETTO TRONTO 013E52 42N57	FC CP IQP	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E52 42N57 400 km		
806	I	S BENEDETTO TRONTO 013E52 42N57	FC CP IQP	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E52 42N57 400 km		
807	I	S BENEDETTO TRONTO 013E52 42N57	FC CP IQP	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E52 42N57 400 km		
808	I	S BENEDETTO TRONTO 013E52 42N57	FC CP IQP	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E52 42N57 400 km		
809	I	S BENEDETTO TRONTO 013E52 42N57	FC CP IQP	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E52 42N57 400 km		
810	I	S BENEDETTO TRONTO 013E52 42N57	FC CP IQP	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E52 42N57 400 km		
654	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	017E25 40N26 380 km	500 kHz	
655	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	017E25 40N26 380 km	500 kHz	
685	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	017E25 40N26 400 km	2000 kHz	
686	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	017E25 40N26 400 km	2000 kHz	
712	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	017E25 40N26 380 km	2000 kHz	
713	I	TARANTO 017E25 40N26	FC CO ICT	0000-2400 DUPLEX	2K80J3E	X 27.0 dBW	ND	017E25 40N26 380 km	2000 kHz	
616	I	TORRE DEL GRECO 014E22 40N46	FC CV IMT	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	014E22 40N46 80 km	450.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
617	I	TRAPANI 012E31 38N01	FC CV IGA	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	012E31 38N01 80 km	450.0000 kHz	
707	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E30 38N01 600 km	2000 kHz	
811	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01 400 km	1736.4000 kHz	
812	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01 400 km	1736.4000 kHz	
813	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01 400 km	1739.4000 kHz	
814	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01 400 km	1739.4000 kHz	
815	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01 400 km	1809.4000 kHz	
816	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01 400 km	1809.4000 kHz	
817	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01 400 km	1812.4000 kHz	
818	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01 400 km	1812.4000 kHz	
819	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01 400 km	1849.4000 kHz	
820	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01 400 km	1849.4000 kHz	
618	I	TRIESTE 013E46 45N39	FC CV IPT	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	013E46 45N39 80 km		
643	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	013E46 45N40 600 km	474.0000 kHz	
644	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	013E46 45N40 600 km		
645	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	100HA1A	X 33.0 dBW	ND	013E46 45N40 600 km		
679	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E46 45N40 600 km	500 kHz	
680	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E46 45N40 600 km	500 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
681	I	TRIESTE 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E46 45N40 600 km	500 kHz	
708	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	013E46 45N40 600 km	2000 kHz	
821	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E46 45N40 400 km	1641.4000 kHz	
822	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E46 45N40 400 km	1641.4000 kHz	
823	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E46 45N40 400 km	1644.4000 kHz	
824	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E46 45N40 400 km	1644.4000 kHz	
825	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E46 45N40 400 km	1846.4000 kHz	
826	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E46 45N40 400 km	1846.4000 kHz	
827	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E46 45N40 400 km	1849.4000 kHz	
828	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E46 45N40 400 km	1849.4000 kHz	
829	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E46 45N40 400 km	2212.4000 kHz	
830	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E46 45N40 400 km	2212.4000 kHz	
619	I	VENEZIA 012E20 45N26	FC CV IQU	0800-1700 DUPLEX	100HA1A	X 20.0 dBW	ND	012E20 45N26 80 km		
709	I	VENEZIA RADIO 012E21 45N26	FC CP IPN	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	012E21 45N26 600 km	2000 kHz	
831	I	VENEZIA RADIO 012E21 45N26	FC CP IPN	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	012E21 45N26 600 km	1678.4000 kHz	
832	I	VENEZIA RADIO 012E21 45N26	FC CP IPN	0000-2400 DUPLEX	2K80R3E	X 33.0 dBW	ND	012E21 45N26 600 km	1678.4000 kHz	
833	I	VENEZIA RADIO 012E21 45N26	FC CP IPN	0000-2400 DUPLEX	2K80R3E	X 33.0 dBW	ND	012E21 45N26 600 km	1681.4000 kHz	
834	I	VENEZIA RADIO 012E21 45N26	FC CP IPN	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	012E21 45N26 600 km	1681.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
835	I	VENEZIA RADIO 012E21 45N26	FC CP IPN	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	012E21 45N26 600 km		
836	I	VENEZIA RADIO 012E21 45N26	FC CP IPN	0000-2400 DUPLEX	2K80R3E	X 33.0 dBW	ND	012E21 45N26 600 km		

IRL

Irlande
Ireland
Irlanda

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
545	IRL	BAILY LSTN 006W03 53N22	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W03 53N22 150 km	1663.9000 kHz	118
546	IRL	BALLYCOTTON LSTN 007W59 51N49	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	007W59 51N49 150 km	1663.9000 kHz	118
547	IRL	BLACKROCK MAYO LSTN 010W19 54N04	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W19 54N04 150 km	1663.9000 kHz	118
548	IRL	BLACKSOD LSTN 010W03 54N05	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W03 54N05 150 km	1663.9000 kHz	118
549	IRL	BULL ROCK LSTN 010W18 51N36	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W18 51N36 150 km	1663.9000 kHz	118
550	IRL	CASTLETOWN HELIBASE 009W54 51N39	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W54 51N39 150 km	1663.9000 kHz	118
551	IRL	CLIFDEN HELIBASE 009W09 53N29	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W09 53N29 150 km	1663.9000 kHz	118
552	IRL	CONINGBEG LSTN 006W39 52N02	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W39 52N02 150 km	1663.9000 kHz	118
561	IRL	DUN LAOGHAIRE DEPOT 006W08 53N17	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W08 53N17 150 km	1663.9000 kHz	118
553	IRL	EAGLE ISLAND LSTN 010W05 54N17	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W05 54N17 150 km	1663.9000 kHz	118
554	IRL	EERAGH LSTN 009W51 53N08	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W51 53N08 150 km	1663.9000 kHz	118
555	IRL	FANAD HEAD LSTN 007W37 55N16	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	007W37 55N16 150 km	1663.9000 kHz	118
556	IRL	FASTNET LSTN 009W36 51N23	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W36 51N23 150 km	1663.9000 kHz	118

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
536	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	008W18 51N50 200 km	516.0000 kHz	
537	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	008W18 51N50 200 km		
544	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	008W18 51N50 200 km		
573	IRL	HAULBOWLINE 008W18 51N50	FC CO EIL	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	008W18 51N50 200 km	2135.0000 kHz	
557	IRL	INISHEER LSTN 009W31 53N02	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W31 53N02 150 km	1663.9000 kHz	118
559	IRL	INISHTRAMULL LSTN 007W14 55N25	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	007W14 55N25 150 km	1663.9000 kHz	118
558	IRL	INISTERRAGHT LSTN 010W39 52N04	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W39 52N04 150 km	1663.9000 kHz	118
560	IRL	KISM BANK LSTN 005W55 53N19	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W55 53N19 150 km	1663.9000 kHz	118
562	IRL	LOOPHEAD LSTN 009W56 52N33	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W56 52N33 150 km	1663.9000 kHz	118
541	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	007W21 55N22 200 km	421.0000 kHz	
542	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	007W21 55N22 200 km		
543	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	007W21 55N22 200 km		
577	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W21 55N22 200 km	1839.4000 kHz	
578	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W21 55N22 200 km	1842.4000 kHz	
579	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	007W21 55N22 200 km	1618.0000 kHz	
563	IRL	MIZEN HEAD LSTN 009W49 51N27	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W49 51N27 150 km	1663.9000 kHz	118
564	IRL	RATHLIN O'BIRNE LSTN 008W50 54N40	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	008W50 54N40 150 km	1663.9000 kHz	118
565	IRL	ROANCARRIGMORE LSTN 009W45 51N39	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	009W45 51N39 150 km	1663.9000 kHz	118

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
566	IRL	ROCKABILL LSTN 006W00 53N36	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W00 53N36 150 km	1663.9000 kHz	118
567	IRL	ROSSLARE HELIBASE 006W21 52N16	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W21 52N16 150 km	1663.9000 kHz	118
568	IRL	SKELLIGS LSTN 010W33 51N46	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W33 51N46 150 km	1663.9000 kHz	118
569	IRL	SLYNE HEAD LSTN 010W14 53N24	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	010W14 53N24 150 km	1663.9000 kHz	118
570	IRL	TORY ISLAND LSTN 008W14 55N16	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	008W14 55N16 150 km	1663.9000 kHz	118
571	IRL	TUSKAR LSTN 006W12 52N12	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	006W12 52N12 150 km	1663.9000 kHz	118
538	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	010W21 51N56 200 km	429.0000 kHz	
539	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	010W21 51N56 200 km		
540	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	010W21 51N56 200 km		
574	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	010W21 51N56 200 km	1825.4000 kHz	
575	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	010W21 51N56 200 km	1828.4000 kHz	
576	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	300HF1B	X 30.0 dBW	ND	010W21 51N56 200 km		
572	IRL	WICKLOW HEAD LSTN 005W59 52N58	FC OT	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	005W59 52N58 150 km	1663.9000 kHz	118

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IRQ

Iraq (République d')
Iraq (Republic of)
Iraq (República del)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
875	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1750.0000 kHz	
876	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1660.0000 kHz	
877	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1650.0000 kHz	
878	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1645.0000 kHz	
879	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1640.0000 kHz	
880	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1780.0000 kHz	
881	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1760.0000 kHz	
882	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1740.0000 kHz	
883	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1730.0000 kHz	
884	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	276HF1BCN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1610.0000 kHz	
885	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1670.0000 kHz	
886	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	276HF1BCN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1611.0000 kHz	
887	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	276HF1BCN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1615.0000 kHz	
888	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	276HF1BCN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1618.0000 kHz	
889	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	276HF1BCN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	1620.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
890	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	525.0000 kHz	
891	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	524.0000 kHz	
892	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	523.0000 kHz	
893	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	522.0000 kHz	
894	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	520.0000 kHz	
895	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	448.0000 kHz	
896	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	442.0000 kHz	
897	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	440.0000 kHz	
898	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	438.0000 kHz	
899	IRQ	BASRAH	047E47 30N33	FC CR YIR	0000-2400 DUPLEX	2K10A2AAN	X 30.0 dBW	ND	025E00 30N00 080E00 00S01	436.0000 kHz	

ISL

Islande
Iceland
Islandia

2075	ISL	HORNAFJOERDUR RADIO	015W13 64N15	FC CP TFT	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	015W13 64N15 750 km	1673.0000 kHz	
2078	ISL	HORNAFJOERDUR RADIO	015W13 64N15	FC CP TFT	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	015W13 64N15 750 km	1692.0000 kHz	149
2074	ISL	NESKAUPSSTADUR RADIO	013W42 65N09	FC CP TFM	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	013W42 65N09 750 km	1640.0000 kHz	
2069	ISL	REYKJAVIK RADIO	021W51 64N05	FC OT TFA	0318-2330 SIMPLEX	304HF1B	X 37.0 dBW	ND	021W51 64N05 900 km	518.0000 kHz	
2070	ISL	REYKJAVIK RADIO	021W51 64N05	FC CP TFA	0000-2400 SIMPLEX	100HA1A	X 34.0 dBW	ND	021W51 64N05 900 km	472.0000 kHz	1315

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2071	ISL	REYKJAVIK RADIO 021W51 64N05	FC CP TFA	0000-2400 SIMPLEX	100HA1A	X 34.0 dBW	ND	021W51 64N05 900 km	489.0000 kHz	1315
2072	ISL	REYKJAVIK RADIO 021W51 64N05	FC CP TFA	0000-2400 SIMPLEX	100HA1A	X 34.0 dBW	ND	021W51 64N05 900 km	484.0000 kHz	1315
2073	ISL	REYKJAVIK RADIO 021W51 64N05	FC CP TFA	0000-2400 SIMPLEX	100HA1A	X 34.0 dBW	ND	021W51 64N05 900 km	512.0000 kHz	1315
2077	ISL	REYKJAVIK RADIO 022W02 64N09	FC CP TFA	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	022W02 64N09 900 km	1650.0000 kHz	
2081	ISL	REYKJAVIK RADIO 022W02 64N09	FC CP TFA	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	022W02 64N09 900 km	1610.0000 kHz	149
2079	ISL	SIGLUFJORDUR RADIO 015W56 66N27	FC CP TFX	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	015W56 66N27 750 km	1685.0000 kHz	149
2080	ISL	SIGLUFJORDUR RADIO 018W57 66N11	FC CP TFX	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	018W57 66N11 750 km	1798.0000 kHz	149
2076	ISL	VESTMANNAEYJAR RADIO 020W16 23N26	FC CP TFV	0000-2400 DUPLEX	3K00H3EJN	X 31.8 dBW	ND	020W16 23N26 750 km	1715.0000 kHz	

JOR

Jordanie (Royaume hachémite de)
Jordan (Hashemite Kingdom of)
Jordania (Reino Hachemita de)

34	JOR	AQABA RADIO 034E59 29N33	FC CP JYO	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	034E59 29N33 1000 km	500 kHz	51
35	JOR	AQABA RADIO 034E59 29N33	FC CP JYO	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	034E59 29N33 600 km	2000 kHz	53
36	JOR	AQABA RADIO 034E59 29N33	FC CP JYO	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	034E59 29N33 800 km	2000 kHz	54
1902	JOR	AQABA RADIO 034E59 29N33	FC CP JYO	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	034E59 29N33 1000 km	500 kHz	51
1903	JOR	AQABA RADIO 034E59 29N33	FC CP JYO	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	034E59 29N33 800 km	2000 kHz	54

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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MDG

Madagascar (République démocratique de)
Madagascar (Democratic Republic of)
Madagascar (República Democrática de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1591	MDG	ANTALAHA 050E16 14S53	FC CP 5RK	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	050E16 14S53	350 km	429.0000 kHz	
1592	MDG	ANTSERANANA 049E17 12S17	FC CP 5RL	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	049E17 12S17	500 km	447.0000 kHz	
1607	MDG	ANTSERANANA 049E17 12S17	FC CP 5RL	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	049E17 12S17	500 km	416.0000 kHz	
1593	MDG	MAHAJANGA 046E18 15S42	FC CP 5RO	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	046E18 15S42	500 km	441.0000 kHz	
1594	MDG	MAHAJANGA 046E18 15S42	FC CP 5RO	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	046E18 15S42	500 km	461.0000 kHz	
1595	MDG	MAINTIRANO 044E01 18S03	FC CP 5RW	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	044E01 18S03	350 km	457.0000 kHz	
1596	MDG	MANAKARA 048E00 22S08	FC CP 5RE	0000-2400 SIMPLEX	100HA1A	X 27.0 dBW	ND	048E00 22S08	250 km	441.0000 kHz	
1597	MDG	MANANJARY 048E20 21S13	FC CP 5RH	0000-2400 SIMPLEX	100HA1A	X 27.0 dBW	ND	048E20 21S13	250 km	432.0000 kHz	
1598	MDG	MORONDAVA 044E18 20S17	FC CP 5RV	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	044E18 20S17	500 km	437.0000 kHz	
1599	MDG	NOSSI BE 048E16 13S24	FC CP 5RN	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	048E16 13S24	350 km	440.0000 kHz	
1600	MDG	TOAMASINA 049E24 18S08	FC CP 5RS	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	049E24 18S08	500 km	416.0000 kHz	
1601	MDG	TOAMASINA 049E24 18S08	FC CP 5RS	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	049E24 18S08	500 km	436.0000 kHz	
1602	MDG	TOAMASINA 049E24 18S08	FC CP 5RS	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	049E24 18S08	500 km	460.0000 kHz	
1603	MDG	TOLAGNARO 046E59 25S01	FC CP 5RD	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	046E59 25S01	500 km	458.0000 kHz	
1604	MDG	TOLAGNARO 046E59 25S01	FC CP 5RD	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	046E59 25S01	500 km	435.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1605	MDG	TOLIARA 043E41 23S21	FC CP 5RT	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	043E41 23S21 500 km	416.0000 kHz	
1606	MDG	TOLIARA 043E41 23S21	FC CP 5RT	0000-2400 SIMPLEX	100HA1A	X 33.0 dBW	ND	043E41 23S21 500 km	439.0000 kHz	

MDR

Madère
Madeira
Madera

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
607	MDR POR	MADEIRA 016W50 32N38	FC CP CUB	0000-2400 DUPLEX	100HA1AAN	X 33.0 dBW	ND	016W50 32N38 400 km	444.0000 kHz	138
608	MDR POR	MADEIRA 016W50 32N38	FC CP CUB	0000-2400 DUPLEX	100HA1AAN	X 27.0 dBW	ND	016W50 32N38 400 km		139
610	MDR POR	MADEIRA 016W50 32N38	FC CP CUB	0000-2400 DUPLEX	304HF1BCN	X 26.0 dBW	ND	016W50 32N38 400 km		
611	MDR POR	MADEIRA 016W50 32N38	FC CP CUB 30	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	016W50 32N38 250 km	1664.9000 kHz	141
1753	MDR POR	MADEIRA 016W50 32N38	FC CP CUB	0000-2400 DUPLEX	1K50F1B	X 26.0 dBW	ND	016W50 32N38 400 km		1231
609	MDR POR	PORTO SANTO 016W20 33N05	FC CO CTQ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	016W20 33N05 600 km	519.0000 kHz	140
1751	MDR POR	PORTO SANTO 016W20 33N05	FC CO CTQ	0000-2400 DUPLEX	1K50F1B	X 30.0 dBW	ND	016W20 33N05 600 km		1227
1752	MDR POR	PORTO SANTO 016W20 33N05	FC CO CTQ	0000-2400 DUPLEX	2K11H2B	X 30.0 dBW	ND	016W20 33N05 600 km		1227
1754	MDR POR	PORTO SANTO 016W20 33N05	FC CO CTQ	0000-2400 DUPLEX	1K50F1B	X 30.0 dBW	ND	016W20 33N05 600 km		1227

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

MLT

Malte (République de)
Malta (Republic of)
Malta (República de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
531	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 dBW	ND	014E24 35N49 1000 km	2139.0000 kHz 2000 kHz	
532	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 dBW	ND	014E24 35N49 1000 km	2000 kHz	
533	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	2K80J3EJN	X 37.0 dBW	ND	014E24 35N49 1000 km	2000 kHz	
534	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	304HF1BCN	X 37.0 dBW	ND	014E24 35N49 1000 km	2000 kHz	77
535	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	304HF1BCN	X 37.0 dBW	ND	014E24 35N49 1000 km	2000 kHz	78
1587	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	100HA1AAN	X 34.8 dBW	ND	014E32 35N49 1000 km	417.0000 kHz 500 kHz	
1588	MLT	MALTA RADIO 014E32 35N40	FC CP 9HD	0000-2400 SIMPLEX	100HA1AAN	X 34.8 dBW	ND	014E32 35N49 1000 km	461.0000 kHz 500 kHz	
1589	MLT	MALTA RADIO 014E24 35N49	FC CP	0000-2400 SIMPLEX	304HF1BCN	X 34.8 dBW	ND	014E24 35N49 1000 km	500 kHz	78
1590	MLT	MALTA RADIO 014E24 35N49	FC CP	0000-2400 SIMPLEX	304HF1BCN	X 34.8 dBW	ND	014E24 35N49 1000 km	500 kHz	77

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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MOZ

Mozambique (République populaire du)
Mozambique (People's Republic of)
Mozambique (República Popular de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1613	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	034E54 19S51 500 km	484.0000 kHz	
1616	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	034E54 19S51 500 km	484.0000 kHz	
1619	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	034E54 19S51 500 km	500.0000 kHz	
1622	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	034E54 19S51 500 km	500.0000 kHz	
1625	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	034E54 19S51 500 km	524.0000 kHz	
1628	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	034E54 19S51 500 km	524.0000 kHz	
1631	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	2K99R3ELN	X 30.0 dBW	ND	034E54 19S51 500 km	1175.0000 kHz	
1634	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	034E54 19S51 500 km	1175.0000 kHz	
1637	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 SIMPLEX	3K00H3EJN	X 30.0 dBW	ND	034E54 19S51 500 km	1175.0000 kHz	
1640	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 DUPLEX	2K99R3ELN	X 30.0 dBW	ND	034E54 19S51 500 km	1858.0000 kHz	
1643	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	034E54 19S51 500 km	1858.0000 kHz	
1646	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 DUPLEX	3K00H3EJN	X 30.0 dBW	ND	034E54 19S51 500 km	1858.0000 kHz	
1649	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 DUPLEX	2K99R3ELN	X 30.0 dBW	ND	034E54 19S51 500 km	2045.0000 kHz	
1652	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	034E54 19S51 500 km	2045.0000 kHz	
1655	MOZ	BEIRA RADIO 034E54 19S51	FC CP C9L4	0000-2400 DUPLEX	3K00H3EJN	X 30.0 dBW	ND	034E54 19S51 500 km	2045.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1612	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	032E37 26S05 500 km	484.0000 kHz	
1615	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	032E37 26S05 500 km	484.0000 kHz	
1618	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	032E37 26S05 500 km	500.0000 kHz	
1621	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	032E37 26S05 500 km	500.0000 kHz	
1624	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	032E37 26S05 500 km	524.0000 kHz	
1627	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	032E37 26S05 500 km	524.0000 kHz	
1630	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	2K99R3ELN	X 30.0 dBW	ND	032E37 26S05 500 km	1175.0000 kHz	
1633	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	032E37 26S05 500 km	1175.0000 kHz	
1636	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 SIMPLEX	3K00H3EJN	X 30.0 dBW	ND	032E37 26S05 500 km	1175.0000 kHz	
1639	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 DUPLEX	2K99R3ELN	X 30.0 dBW	ND	032E37 26S05 500 km	1858.0000 kHz	
1642	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	032E37 26S05 500 km	1858.0000 kHz	
1645	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 DUPLEX	3K00H3EJN	X 30.0 dBW	ND	032E37 26S05 500 km	1858.0000 kHz	
1648	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 DUPLEX	2K99R3ELN	X 30.0 dBW	ND	032E37 26S05 500 km	2045.0000 kHz	
1651	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	032E37 26S05 500 km	2045.0000 kHz	
1654	MOZ	MAPUTO RADIO 032E37 26S05	FC CP C9L2	0000-2400 DUPLEX	3K00H3EJN	X 30.0 dBW	ND	032E37 26S05 500 km	2045.0000 kHz	
1614	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	040E39 14S34 500 km	484.0000 kHz	
1617	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	040E39 14S34 500 km	484.0000 kHz	
1620	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	040E39 14S34 500 km	500.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1623	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	040E39 14S34 500 km	500.0000 kHz	
1626	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	100HA1AAN	X 26.0 dBW	ND	040E39 14S34 500 km	524.0000 kHz	
1629	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	2K10A2AAN	X 26.0 dBW	ND	040E39 14S34 500 km	524.0000 kHz	
1632	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	2K99R3ELN	X 30.0 dBW	ND	040E39 14S34 500 km	1175.0000 kHz	
1635	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	040E39 14S34 500 km	1175.0000 kHz	
1638	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 SIMPLEX	3K00H3EJN	X 30.0 dBW	ND	040E39 14S34 500 km	1175.0000 kHz	
1641	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 DUPLEX	2K99R3ELN	X 30.0 dBW	ND	040E39 14S34 500 km	1858.0000 kHz	
1644	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	040E39 14S34 500 km	1858.0000 kHz	
1647	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 DUPLEX	3K00H3EJN	X 30.0 dBW	ND	040E39 14S34 500 km	1858.0000 kHz	
1650	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 DUPLEX	2K99R3ELN	X 30.0 dBW	ND	040E39 14S34 500 km	2045.0000 kHz	
1653	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	040E39 14S34 500 km	2045.0000 kHz	
1656	MOZ	NACALA RADIO 040E39 14S34	FC CP C9L6	0000-2400 DUPLEX	3K00H3EJN	X 30.0 dBW	ND	040E39 14S34 500 km	2045.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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MRC

Maroc (Royaume du)
Morocco (Kingdom of)
Marruecos (Reino de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1929	MRC	AGADIR-RADIO 009W33 30N22	FC CP CND	0000-2400 DUPLEX	75H0A1A	X 33.0 dBW	ND	009W33 30N22	400 km	461.0000 kHz	145
1927	MRC	CASABLANCA RADIO 007W34 33N34	FC CP CND	0000-2400 DUPLEX	75H0A1A	X 33.0 dBW	ND	007W34 33N37	400 km	441.0000 kHz	145
866	MRC	DAKHLA 015W56 23N42	FC CP CNK	0000-2400 DUPLEX	2K80H3E	X 25.0 dBW	ND	015W56 23N42	450 km	1768.4000 kHz	144
867	MRC	DAKHLA 015W56 23N42	FC CP CNK	0000-2400 DUPLEX	2K80H3E	X 15.0 dBW	ND	015W56 23N42	350 km	1759.4000 kHz	144
868	MRC	DAKHLA 015W56 23N42	FC CP CNK	0000-2400 DUPLEX	2K80H3E	X 30.0 dBW	ND	015W56 23N42	500 km	1774.4000 kHz	144
1922	MRC	DAKHLA 015W56 23N42	FC CP CNK	0000-2400 DUPLEX	75H0A1A	X 33.0 dBW	ND	015W56 23N42	400 km	513.0000 kHz	
1923	MRC	DAKHLA 015W56 23N42	FC CP CNK	0000-2400 DUPLEX	75H0A1A	X 33.0 dBW	ND	015W56 23N42	400 km	522.0000 kHz	
872	MRC	ESSAOUIRA 009W46 31N38	FC CP CNE	0000-2400 DUPLEX	2K80H3E	X 25.0 dBW	ND	009W46 31N38	500 km	1660.4000 kHz	143
873	MRC	ESSAOUIRA 009W46 31N38	FC CP CNE	0000-2400 DUPLEX	2K80H3E	X 25.0 dBW	ND	009W46 31N38	450 km	1681.4000 kHz	143
1926	MRC	ESSAOUIRA 009W46 31N38	FC CP CNE	0000-2400 DUPLEX	75H0A1A	X 33.0 dBW	ND	009W46 31N38	350 km	521.0000 kHz	143
863	MRC	LAAYOUNE 013W13 27N10	FC CP CNL	0000-2400 DUPLEX	2K80H3E	X 30.0 dBW	ND	013W13 27N10	550 km	1639.4000 kHz	143
864	MRC	LAAYOUNE 013W13 27N10	FC CP CNL	0000-2400 DUPLEX	2K80H3E	X 25.0 dBW	ND	013W13 27N10	450 km	1651.4000 kHz	143
865	MRC	LAAYOUNE 013W13 27N10	FC CP CNL	0000-2400 DUPLEX	2K80H3E	X 25.0 dBW	ND	013W13 27N10	450 km	1732.4000 kHz	143
1920	MRC	LAAYOUNE 013W13 27N10	FC CP CNL	0000-2400 DUPLEX	75H0A1A	X 33.0 dBW	ND	013W13 27N10	400 km	515.0000 kHz	143
1921	MRC	LAAYOUNE 013W13 27N10	FC CP CNL	0000-2400 DUPLEX	75H0A1A	X 30.0 dBW	ND	013W13 27N10	350 km	523.0000 kHz	143

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
869	MRC	NADOR 002W56 35N10	FC CP CNG	0000-2400 DUPLEX	2K80H3E	X 30.0 dBW	ND	002W56 35N10 550 km	1792.4000 kHz	143
870	MRC	NADOR 002W56 35N10	FC CP CNG	0000-2400 DUPLEX	2K80H3E	X 35.0 dBW	ND	002W56 35N10 600 km	1717.4000 kHz	143
871	MRC	NADOR 002W56 35N10	FC CP CNG	0000-2400 DUPLEX	2K80H3E	X 30.0 dBW	ND	002W56 35N10 550 km	1774.4000 kHz	143
1924	MRC	NADOR 002W56 35N10	FC CP CNG	0000-2400 DUPLEX	75H0A1A	X 25.0 dBW	ND	002W56 35N10 350 km	445.0000 kHz	
1925	MRC	NADOR 002W56 35N10	FC CP CNG	0000-2400 DUPLEX	75H0A1A	X 30.0 dBW	ND	002W56 35N10 300 km	524.0000 kHz	
874	MRC	SAFI RADIO 009W14 32N18	FC CP CND3	0000-2400 DUPLEX	2K80H3E	X 15.0 dBW	ND	009W14 32N18 200 km	1743.0000 kHz	145
1928	MRC	TANGER-RADIO 005W51 35N44	FC CP CNW	0000-2400 DUPLEX	75H0A1A	X 33.0 dBW	ND	005W51 35N44 400 km	447.0000 kHz	145

MYT

Mayotte (Ile de)
Mayotte Island
Mayotte (Isla de)

1811	MYT F	DZAOUDZI 045E17 12S48	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	045E17 12S48 800 km		
1812	MYT F	DZAOUDZI 045E17 12S48	FC CP FF	0000-2400 DUPLEX	304HF1B	X 31.5 dBW	ND	045E17 12S48 800 km		1289
1813	MYT F	DZAOUDZI 045E17 12S48	FC CP FF	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	045E17 12S48 400 km		1274
1814	MYT F	DZAOUDZI 045E17 12S48	FC CP FF	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	045E17 12S48 400 km	472.0000 kHz	1265

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

NOR

Norvège
Norway
Noruega

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1670	NOR	AALESUND	006E12 62N28	FC CP LGA	0000-2400 DUPLEX	100HA1A	X 25.0 dBW	ND	006E12 62N28	180 km	487.0000 kHz	
1671	NOR	AALESUND	006E12 62N28	FC CP LGA	0000-2400 DUPLEX	400HF1B	X 25.0 dBW	ND	006E12 62N28	180 km		
1683	NOR	AALESUND	006E12 62N28	FC CP LGA	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	006E12 62N28	370 km	1722.0000 kHz	
1684	NOR	AALESUND	006E12 62N28	FC CP LGA	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	006E12 62N28	370 km		
1711	NOR	AALESUND	007E42 63N07	FC CP LGA	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	007E42 63N07	370 km	1694.0000 kHz	
1657	NOR	BERGEN	005E22 60N25	FC CP LGN	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	005E22 60N25	370 km	416.0000 kHz	
1690	NOR	BERGEN	005E22 60N25	FC CP LGN	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E22 60N25	370 km	1743.0000 kHz	
1707	NOR	BERGEN	005E22 60N25	FC CO	0000-2400 DUPLEX	3K00J3E	X 20.0 dBW	ND	005E22 60N25	100 km		
1714	NOR	BERGEN	005E22 60N25	FC CP LGN	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E22 60N25	370 km	2670.0000 kHz	
1715	NOR	BERGEN	005E22 60N25	FC CP LGN	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E22 60N25	370 km	2667.0000 kHz	
1667	NOR	BJOERNOEYA	019E01 74N31	FC CP LJB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	019E01 74N31	370 km	441.0000 kHz	
1703	NOR	BJOERNOEYA	019E01 74N31	FC CP LJB	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	019E01 74N31	370 km	1757.0000 kHz	
1659	NOR	BODOE	014E23 67N16	FC CO	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	014E23 67N16	370 km	428.0000 kHz	
1660	NOR	BODOE	014E23 67N16	FC CO	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	014E23 67N16	370 km	428.0000 kHz	
1672	NOR	BODOE	014E23 67N16	FC CP LGP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	014E23 67N16	370 km	487.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1673	NOR	BODOE 014E23 67N16	FC CP LGP	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	014E23 67N16 370 km		
1688	NOR	BODOE 014E23 67N16	FC CP LGP	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	014E23 67N16 370 km	2656.0000 kHz	
1689	NOR	BODOE 014E23 67N16	FC CP LGP	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	014E23 67N16 370 km		
1712	NOR	BODOE 012E37 66N01	FC CP LGP	0800-1800 DUPLEX	3K00J3E	X 25.0 dBW	ND	012E37 66N01 180 km	2642.0000 kHz	
1713	NOR	BODOE 015E58 68N24	FC CP LGP	0800-1800 DUPLEX	3K00J3E	X 25.0 dBW	ND	015E58 68N24 180 km	2695.0000 kHz	
1710	NOR	BODOE/HARSTAD 018E57 69N39	FC CO	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	018E57 69N39 370 km		
1669	NOR	FARSUND 006E45 58N04	FC CP LGZ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	006E45 58N04 370 km	476.0000 kHz	
1693	NOR	FARSUND 006E45 58N04	FC CP LGZ	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	006E45 58N04 370 km	1750.0000 kHz	
1720	NOR	FARSUND 006E45 58N04	FC CP LGZ	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	006E45 58N04 370 km	1747.0000 kHz	
1721	NOR	FARSUND 006E45 58N04	FC CP LGZ	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	006E45 58N04 370 km	2642.0000 kHz	
1722	NOR	FARSUND 006E45 58N04	FC CP LGZ	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	006E45 58N04 370 km	3642.0000 kHz	
1723	NOR	FARSUND 007E09 58N04	FC CP LGZ	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	007E59 58N04 370 km	2635.0000 kHz	
1691	NOR	FLOROE 005E00 61N36	FC CP LGL	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E00 61N36 370 km	2649.0000 kHz	
1716	NOR	FLOROE 005E00 61N36	FC CP LGL	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E00 61N36 370 km	2646.0000 kHz	
1717	NOR	FLOROE 005E00 61N36	FC CP LGL	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E00 61N36 370 km	1757.0000 kHz	
1718	NOR	FLOROE 005E00 61N36	FC CP LGL	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E00 61N36 370 km	1754.0000 kHz	
1719	NOR	FLOROE 005E00 61N36	FC CP LGL	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E00 61N36 370 km	3645.0000 kHz	
1661	NOR	HAMMERFEST 023E41 70N41	FC CP LGI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	023E41 70N41 370 km	438.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1662	NOR	HAMMERFEST 023E41 70N41	FC CP LGI	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	023E41 70N41 370 km		
1697	NOR	HAMMERFEST 023E41 70N41	FC CP LGI	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	023E41 70N41 370 km	1722.0000 kHz	
1698	NOR	HAMMERFEST 023E41 70N41	FC CP LGI	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	023E41 70N41 370 km		
1731	NOR	HAMMERFEST 021E00 70N02	FC CP LGI	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	021E00 70N02 370 km	1803.0000 kHz	
1732	NOR	HAMMERFEST 025E54 70N59	FC CP LGI	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	025E54 70N59 370 km	1743.0000 kHz	
1668	NOR	HARSTAD 018E57 69N39	FC CP LGH	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	018E57 69N39 370 km	444.0000 kHz	
1679	NOR	HARSTAD 018E57 69N39	FC CO	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	018E57 69N39 370 km	524.0000 kHz	
1680	NOR	HARSTAD 018E57 69N39	FC CO	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	018E57 69N39 370 km	524.0000 kHz	
1696	NOR	HARSTAD 018E57 69N39	FC CP LGH	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	018E57 69N39 370 km	1736.0000 kHz	
1729	NOR	HARSTAD 016E04 69N18	FC CP LGH	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	016E04 69N18 370 km	2635.0000 kHz	
1730	NOR	HARSTAD 019E01 69N43	FC CP LGH	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	019E01 69N43 370 km	1750.0000 kHz	
1705	NOR	HORTEN 010E29 59N25	FC CO	0000-2400 DUPLEX	3K00J3E	X 20.0 dBW	ND	010E29 59N25 100 km		
1658	NOR	JAN MAYEN 008W40 70N57	FC CP LMJ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	008W40 70N57 370 km	435.0000 kHz	
1704	NOR	JAN MAYEN 008W40 70N57	FC CP LMJ	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	008W40 70N57 370 km	1722.0000 kHz	
1681	NOR	KRISTIANSAND S 007E59 58N03	FC CO	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	007E59 58N03 370 km	524.0000 kHz	
1682	NOR	KRISTIANSAND S 007E59 58N03	FC CO	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	007E59 58N03 370 km	524.0000 kHz	
1706	NOR	KRISTIANSAND S 007E59 58N03	FC CO	0000-2400 DUPLEX	3K00J3E	X 20.0 dBW	ND	007E59 58N03 100 km		
1674	NOR	NY-AALESUND 011E55 78N55	FC CP LJN	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	011E55 78N55 370 km	487.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1702	NOR	NY-AALESUND 011E55 78N55	FC CP LJN	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	011E55 78N55 370 km	1729.0000 kHz	
1685	NOR	OERLANDET 009E36 63N41	FC CP LFO	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	009E36 63N41 370 km	2635.0000 kHz	
1686	NOR	OERLANDET 009E36 63N41	FC CP LFO	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	009E36 63N41 370 km		
1665	NOR	ROERVIK 011E12 64N50	FC CP LGD	0000-2400 DUPLEX	100HA1A	X 25.0 dBW	ND	011E12 64N50 180 km	441.0000 kHz	
1666	NOR	ROERVIK 011E12 64N50	FC CP LGD	0000-2400 DUPLEX	400HF1B	X 25.0 dBW	ND	011E12 64N50 180 km		
1687	NOR	ROERVIK 011E12 64N50	FC CP LGD	0000-2400 DUPLEX	3K00J3E	X 25.0 dBW	ND	011E12 64N50 180 km	1757.0000 kHz	
1675	NOR	ROGALAND 005E34 58N48	FC CP LGQ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	005E34 58N48 370 km	516.0000 kHz	
1676	NOR	ROGALAND 005E34 58N48	FC CP LGQ	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	005E34 58N48 370 km		
1694	NOR	ROGALAND 005E34 58N48	FC CP LGQ	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	005E34 58N48 370 km		
1695	NOR	ROGALAND 005E34 58N48	FC CP LGQ	0000-2400 DUPLEX	3K00J3E	X 25.0 dBW	ND	005E34 58N48 180 km	1729.0000 kHz	
1724	NOR	ROGALAND 005E34 58N48	FC CP LGQ	0800-1800 DUPLEX	3K00J3E	X 25.0 dBW	ND	005E34 58N48 180 km	2656.0000 kHz	
1725	NOR	ROGALAND 005E34 58N48	FC CP LGQ	0800-1800 DUPLEX	3K00J3E	X 25.0 dBW	ND	005E34 58N48 180 km	2653.0000 kHz	
1726	NOR	ROGALAND 005E34 58N48	FC CP LGQ	0800-1800 DUPLEX	3K00J3E	X 25.0 dBW	ND	005E34 58N48 180 km	3638.0000 kHz	
1727	NOR	ROGALAND 005E05 59N26	FC CP LGQ	0800-1800 DUPLEX	3K00J3E	X 25.0 dBW	ND	005E05 59N26 180 km	2695.0000 kHz	
1728	NOR	ROGALAND 005E05 59N26	FC CP LGQ	0800-1800 DUPLEX	3K00J3E	X 25.0 dBW	ND	005E05 59N26 180 km	1691.0000 kHz	
1709	NOR	STAVANGER 005E34 58N04	FC CO	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	005E34 58N04 370 km		
1663	NOR	SVALBARD 013E38 78N04	FC CP LGS	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	013E38 78N04 370 km	438.0000 kHz	
1701	NOR	SVALBARD 013E38 78N04	FC CP LGS	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	013E38 78N04 370 km	1736.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1735	NOR	SVALBARD	013E38 78N04	FC CP LGS	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	013E38 78N04	370 km	1694.0000 kHz	
1664	NOR	TJOEME	010E25 59N05	FC CP LGT	0000-2400 DUPLEX	100HA1A	X 25.0 dBW	ND	010E25 59N05	180 km	438.0000 kHz	
1692	NOR	TJOEME	010E25 59N05	FC CP LGT	0000-2400 DUPLEX	3K00J3E	X 25.0 dBW	ND	010E25 59N05	180 km	1736.0000 kHz	
1708	NOR	TRONDHEIM	010E25 65N26	FC CO	0000-2400 DUPLEX	3K00J3E	X 20.0 dBW	ND	010E25 65N26	100 km		
1677	NOR	VARDOE	031E05 70N22	FC CP LGV	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	031E05 70N22	370 km	522.0000 kHz	
1678	NOR	VARDOE	031E05 70N22	FC CP LGV	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	031E05 70N22	370 km		
1699	NOR	VARDOE	031E05 70N22	FC CP LGV	0000-2400 DUPLEX	3K00J3E	X 27.0 dBW	ND	031E05 70N22	370 km	1729.0000 kHz	
1700	NOR	VARDOE	031E05 70N22	FC CP LGV	0000-2400 DUPLEX	400HF1B	X 27.0 dBW	ND	031E05 70N22	370 km		
1733	NOR	VARDOE	029E04 70N52	FC CP LGV	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	029E04 70N52	370 km	2656.0000 kHz	
1734	NOR	VARDOE	027E51 71N02	FC CP LGV	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	027E51 71N02	370 km	2670.0000 kHz	

OMA

Oman (Sultanat d')
Oman (Sultanate of)
Omán (Sultanía de)

2248	OMA	MUSCAT	058E36 23N37	FC CO A4K	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	058E21 26N22	30 km	1723.4000 kHz	
2251	OMA	MUSCAT	058E30 23N37	FC CO A4M2	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	058E30 23N37	30 km	1639.4000 kHz	
2246	OMA	MUSSANDAM	056E21 26N22	FC CO A4N	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	056E21 26N22	30 km	1693.4000 kHz	
2247	OMA	RAYSUT	054E00 16N57	FC CO A4Q	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	054E00 16N57	30 km	1715.4000 kHz	
2245	OMA	SALALAH	054E06 17N01	FC CO A4M4	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	054E06 17N01	30 km	1657.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2250	OMA	SUR	059E28 22N32	FC CO A4NA	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	059E28 22N32	30 km	1768.4000 kHz	
2249	OMA	WUDHAM	057E33 23N49	FC CO A4KA	0000-2400 SIMPLEX	3K00J3E	X 20.0 dBW	ND	057E33 23N49	30 km	1750.4000 kHz	

POR Portugal

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
600	POR	ALCANTARA	009W13 38N43	FC CO	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	009W13 38N43	200 km		
584	POR	APULIA	008W45 41N29	FC CO CTN	0000-2400 DUPLEX	100HA1A	X 25.4 dBW	ND	008W45 41N29	500 km	487.0000 kHz	123
1737	POR	APULIA	008W45 41N29	FC CO CTN	0000-2400 DUPLEX	1K50F1B	X 25.4 dBW	ND	008W45 41N29	500 km		1227
589	POR	AVEIRO	008W45 40N40	FC OT CUN 513	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	008W45 40N40	200 km	1873.0000 kHz	125
597	POR	DOCA PESCA	009W13 38N43	FC OT	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	009W13 38N43	200 km		
591	POR	FIGUEIRA DA FOZ	025W40 37N45	FC CP CUN 514	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	025W40 37N45	200 km	1785.0000 kHz	127
580	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	100HA1AAN	X 34.8 dBW	ND	009W14 38N44	400 km	435.0000 kHz	119
581	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	100HA1AAN	X 34.8 dBW	ND	009W14 38N44	400 km		120
586	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	304HF1BCN	X 33.0 dBW	ND	009W14 38N44	400 km		
587	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	304HF1BCN	X 33.0 dBW	ND	009W14 38N44	400 km		
588	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	304HF1BCN	X 33.0 dBW	ND	009W14 38N44	400 km		
599	POR	LISBOA	009W13 38N43	FC CV	0000-2400 SIMPLEX	2K70J3EJN	X 12.0 dBW	ND	009W13 38N43	150 km		
1739	POR	LISBOA	009W14 38N44	FC CP CUL	0000-2400 DUPLEX	1K50F1B	X 33.0 dBW	ND	009W14 38N44	400 km		1227

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1740	POR	LISBOA 009W14 38N44	FC CP CUL	0000-2400 DUPLEX	1K50F1B	X 33.0 dBW	ND	009W14 38N44 400 km		1228
593	POR	MATOSINHOS 008W45 41N12	FC CP CUN 512	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	008W45 41N12 200 km	1848.0000 kHz	129
582	POR	MONSANTO 009W11 38N44	FC CO CTV	0000-2400 DUPLEX	100HA1A	X 34.7 dBW	ND	009W11 38N44 1500 km	476.0000 kHz	121
583	POR	MONSANTO 009W11 38N44	FC CO CTV	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	009W11 38N44 900 km	522.0000 kHz	122
1736	POR	MONSANTO 009W11 38N44	FC CO CTV	0000-2400 DUPLEX	1K50F1B	X 30.0 dBW	ND	009W11 38N44 900 km		1227
1741	POR	MONSANTO 009W11 38N44	FC CO CTV	0000-2400 DUPLEX	1K50F1B	X 34.7 dBW	ND	009W11 38N44 1500 km		1227
1742	POR	MONSANTO 009W11 38N44	FC CO CTV	0000-2400 DUPLEX	1K50F1B	X 34.7 dBW	ND	009W11 38N44 1500 km		1227
1743	POR	MONSANTO 009W11 38N44	FC CO CTV	0000-2400 DUPLEX	1K50F1B	X 34.7 dBW	ND	009W11 38N44 1500 km	1620.0000 kHz	1229
1744	POR	MONSANTO 009W11 38N44	FC CO CTV	0000-2400 DUPLEX	2K11H2B	X 34.7 dBW	ND	009W11 38N44 1500 km		1227
592	POR	OLHAO 007W50 37N02	FC CP CUN 518	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	007W50 37N02 200 km	1848.0000 kHz	128
596	POR	PENICHE 009W25 39N20	FC CP CUN 515	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	009W25 39N20 200 km	1873.0000 kHz	132
590	POR	PORTIMAO 008W38 37N10	FC OT CUN 517	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	008W38 37N10 200 km	1873.0000 kHz	126
585	POR	SAGRES 008W57 37N00	FC CO CTS	0000-2400 DUPLEX	100HA1A	X 25.4 dBW	ND	008W57 37N00 500 km	450.0000 kHz	124
1738	POR	SAGRES 008W57 37N00	FC CO CTS	0000-2400 DUPLEX	1K50F1B	X 25.4 dBW	ND	008W57 37N00 500 km		1227
594	POR	SETUBAL 008W55 38N32	FC OT CUN 516	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	008W55 38N32 200 km	1785.0000 kHz	130
598	POR	VILA MOURA 008W06 37N04	FC CV CUM 517	0000-2400 SIMPLEX	2K70J3EJN	X 12.0 dBW	ND	008W06 37N04 150 km	1757.0000 kHz	
595	POR	VILA REAL S ANTONIO 007W28 37N12	FC CP CUN 519	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	007W28 37N12 200 km	1667.0000 kHz	131

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
QAT					**Qatar (Etat du) Qatar (State of) Qatar (Estado de)**							
18	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80J3E	X 33.0 dBW	ND	051E35 25N45	600 km	1849.0000 kHz	
19	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80H3E	X 33.0 dBW	ND	051E35 25N45	600 km	1849.0000 kHz	
20	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80R3E	X 33.0 dBW	ND	051E35 25N45	600 km	1849.0000 kHz	
21	QAT	DOHA	051E31 25N38	FC CP A7QD	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	051E31 25N38	600 km	472.0000 kHz	
22	QAT	DOHA	051E31 25N38	FC CP A7QD	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	051E35 25N45	600 km	444.0000 kHz	
23	QAT	DOHA	051E31 25N38	FC CP A7QD	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	051E35 25N45	600 km	430.0000 kHz	
24	QAT	DOHA	051E31 25N38	FC CP A7QD	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	051E31 25N38	600 km	514.0000 kHz	
17	QAT	QGP C RADIO	051E32 25N17	FC CV A7S	0000-2400 SIMPLEX	100HA1A	X 27.0 dBW	ND	051E32 25N17	800 km	438.0000 kHz	
REU					**Réunion (Département français de la) Reunion (French Department of) Reunión (Departamento francés de la)**							
1815	REU F	S DENIS	055E36 20S54	FC CP FFD	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	055E27 20S51	800 km	487.0000 kHz	1266
1816	REU F	S DENIS	055E36 20S54	FC CP FFD	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	055E27 20S51	800 km		1274
1817	REU F	S DENIS	055E36 20S54	FC CP FFD	0000-2400 DUPLEX	304HF1B	X 33.0 dBW	ND	055E27 20S51	800 km		1274
2066	REU F	S DENIS	055E36 20S54	FC CP FFD	0000-2400 SIMPLEX	2K80J3E	X 33.0 dBW	ND	055E27 20S51	800 km	1814.4000 kHz	148

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2067	REU F	S DENIS 055E36 20S54	FC CP FFD	0000-2400 SIMPLEX	2K80J3E	X 33.0 dBW	ND	055E27 20S51 800 km		
2068	REU F	S DENIS 055E36 20S53	FC CP FFD	0200-1815 DUPLEX	304HF1B	X 31.5 dBW	ND	055E36 20S53 800 km		1289

S

Suède
Sweden
Suecia

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
354	S	AELVSBORG RADIO 011E30 58N30	FC CO SHY	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	011E30 58N30 400 km	515.0000 kHz 500 kHz	
355	S	AELVSBORG RADIO 011E30 58N30	FC CO SHY	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	011E30 58N30 400 km	1600 kHz	55
356	S	AELVSBORG RADIO 011E30 58N30	FC CO SHY	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	011E30 58N30 200 km	1710.0000 kHz 1700 kHz	
370	S	GOETEBORG RADIO 011E56 57N28	FC CP SAG	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	011E56 57N28 500 km	450.0000 kHz	
371	S	GOETEBORG RADIO 011E56 57N28	FC CP SAG	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	011E56 57N28 500 km	500 kHz	
372	S	GOETEBORG RADIO 011E56 57N28	FC CP SAG	0000-2400 DUPLEX	280HF1B	X 37.0 dBW	ND	011E56 57N28 500 km	2000 kHz	
373	S	GOETEBORG RADIO 011E56 57N28	FC CP SAG	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	011E56 57N28 500 km	1786.4000 kHz	
357	S	HAARSFJAERDEN RADIO 018E40 58N59	FC CO SHT	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	018E40 58N59 400 km	500 kHz	57
358	S	HAARSFJAERDEN RADIO 018E40 58N59	FC CO SHT	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	018E40 58N59 400 km	2101.0000 kHz 1600 kHz	55
359	S	HAARSFJAERDEN RADIO 018E40 58N59	FC CO SHT	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	018E40 58N59 200 km	1690.0000 kHz 1700 kHz	
374	S	HAERNOESAND RADIO 018E08 62N43	FC CP SAH	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	018E08 62N43 500 km	464.0000 kHz	
375	S	HAERNOESAND RADIO 018E08 62N43	FC CP SAH	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	018E08 62N43 500 km	500 kHz	
376	S	HAERNOESAND RADIO 018E08 62N43	FC CP SAH	0000-2400 DUPLEX	280HF1B	X 37.0 dBW	ND	018E08 62N43 500 km	2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
377	S	HAERNOESAND RADIO 021E36 64N28	FC CP SAH	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E36 64N28 500 km	464.0000 kHz	35
378	S	HAERNOESAND RADIO 021E36 64N28	FC CP SAH	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	021E36 64N28 500 km	500 kHz	35
379	S	HAERNOESAND RADIO 021E36 64N28	FC CP SAH	0000-2400 DUPLEX	280HF1B	X 37.0 dBW	ND	021E36 64N28 500 km	2000 kHz	35
380	S	HAERNOESAND RADIO 021E36 64N28	FC CP SAH	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	021E36 64N28 500 km	1651.4000 kHz	35
360	S	KARLSKRONA RADIO 015E33 56N11	FC CP SAA	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	015E33 56N11 200 km	416.0000 kHz 500 kHz	
361	S	KARLSKRONA RADIO 015E33 56N11	FC CO SAA	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	015E33 56N11 200 km	519.0000 kHz 500 kHz	56
362	S	KARLSKRONA RADIO 015E33 56N11	FC CO SAA	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	015E33 56N11 200 km	2101.0000 kHz 1600 kHz	55
363	S	KARLSKRONA RADIO 015E33 56N11	FC CO SAA	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	015E33 56N11 200 km	1700 kHz	
364	S	RUDA RADIO 016E18 57N12	FC CO SHR	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	016E18 57N12 200 km	500 kHz	56
365	S	RUDA RADIO 016E18 57N12	FC CO SHR	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	016E18 57N12 200 km	2101.0000 kHz 1600 kHz	55
381	S	STOCKHOLM RADIO 018E43 59N17	FC CP SDJ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	018E43 59N17 500 km	416.0000 kHz	35
382	S	STOCKHOLM RADIO 018E43 59N17	FC CP SDJ	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	018E43 59N17 500 km	500 kHz	35
383	S	STOCKHOLM RADIO 018E43 59N17	FC CP SDJ	0000-2400 DUPLEX	280HF1B	X 37.0 dBW	ND	018E43 59N17 500 km	2000 kHz	35
384	S	STOCKHOLM RADIO 018E43 59N17	FC CP SDJ	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	018E43 59N17 500 km	1772.4000 kHz	35
385	S	STOCKHOLM RADIO 014E19 55N29	FC CP SDJ	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	014E19 55N29 500 km	500 kHz	35
386	S	STOCKHOLM RADIO 014E19 55N29	FC CP SDJ	0000-2400 DUPLEX	280HF1B	X 37.0 dBW	ND	014E19 55N29 500 km	2000 kHz	35
387	S	STOCKHOLM RADIO 014E19 55N29	FC CP SDJ	0000-2400 DUPLEX	2K80J3E	X 37.0 dBW	ND	014E19 55N29 500 km	1779.4000 kHz	35
903	S	STOCKHOLM RADIO 014E19 55N29	FC CP SDJ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	014E19 55N29 500 km	416.0000 kHz	35

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
366	S	TINGSTAEDE RADIO 018E36 57N44	FC CP SAE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	018E36 57N44	400 km	418.0000 kHz 500 kHz	
367	S	TINGSTAEDE RADIO 018E36 57N44	FC CO SAE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	018E36 57N44	300 km	519.0000 kHz 500 kHz	57
368	S	TINGSTAEDE RADIO 018E36 57N44	FC CO SAE	0000-2400 DUPLEX	280HF1B	X 30.0 dBW	ND	018E36 57N44	300 km	2101.0000 kHz 1600 kHz	55
369	S	TINGSTAEDE RADIO 018E36 57N44	FC CO SAE	0000-2400 SIMPLEX	2K80J3E	X 30.0 dBW	ND	018E36 57N44	300 km	1700 kHz	

SEY

Seychelles (République des)
Seychelles (Republic of)
Seychelles (República de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
16	SEY	MAHE 055E27 04S37	FC CP S7Q	0000-2400 SIMPLEX	100HA1A	X 28.0 dBW	ND	055E27 04S37	620 km	432.0000 kHz 500 kHz	

SHN

Sainte-Hélène
Saint Helena
Santa Elena

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
42	SHN G	ST HELENA 005W43 15S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W43 15S56	320 km	500 kHz	397
43	SHN G	ST HELENA 005W43 15S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W43 15S56	320 km	500 kHz	329
44	SHN G	ST HELENA 005W43 15S56	FC CP ZHH	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	005W43 15S56	320 km	2000 kHz	415
45	SHN G	ST HELENA 005W43 15S56	FC CP ZHH	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W43 15S56	320 km	2000 kHz	328
46	SHN G	ST HELENA 005W43 15S56	FC CP ZBI	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W43 15S56	320 km	2000 kHz	398
47	SHN G	ST HELENA 005W43 15S56	FC CP ZHH	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	005W43 15S56	320 km	2000 kHz	402

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
48	SHN G	ST HELENA 005W43 15S56	FC CP S HELENA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W43 15S56 300 km	2000 kHz	409
49	SHN G	ST HELENA 005W43 15S56	FC CP S HELENA	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	005W43 15S56 300 km	2000 kHz	408

TUN

Tunisie
Tunisia
Túnez

2063	TUN	MAHDIA RADIO 011E04 35N30	FC CP 3VM	0600-1900 DUPLEX	2K70J3E	X 26.0 dBW	ND	010E11 36N53 014E21 35N53 012E34 37N38 012E30 38N01 020E03 32N07 013E11 32N54	1771.0000 kHz	1317
2064	TUN	SFAX RADIO 010E44 34N44	FC CP 3VS	0600-2400 SIMPLEX	100HA1A	X 27.0 dBW	ND	010E11 36N53 014E32 35N49 013E11 32N54 012E31 41N48 009E14 39N13 014E14 40N50	512.0000 kHz	1315
2061	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 023E26 35N09 005E21 43N19 012E31 41N48	512.0000 kHz	1315
2062	TUN	TUNIS RADIO 010E11 36N53	FC CP 3VX	0000-2400 SIMPLEX	100HA1A	X 37.0 dBW	ND	003E18 36N40 001E54 41N16 020E03 32N07 033E26 35N09 005E21 43N19 012E31 41N48	441.0000 kHz	1315

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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UKR

République socialiste soviétique d'Ukraine
Ukrainian Soviet Socialist Republic
República Socialista Soviética de Ucrania

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1040	UKR URS	BELGOROD-DNESTROVSKY 030E22 46N11	FC CO UPE-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	030E22 46N11 200 km		501
1041	UKR URS	BELGOROD-DNESTROVSKY 030E22 46N11	FC CO UPE-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	030E22 46N11 200 km		501
1071	UKR URS	BELGOROD-DNESTROVSKY 030E22 46N11	FC CO UPE-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	030E22 46N11 200 km		489
1072	UKR URS	BELGOROD-DNESTROVSKY 030E22 46N11	FC CO UPE-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	030E22 46N11 200 km		489
1054	UKR URS	BERDIANSK 036E48 46N47	FC CP UWH	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E48 46N47 200 km		472
1055	UKR URS	BERDIANSK 036E48 46N47	FC CP UWH	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E48 46N47 200 km		481
1056	UKR URS	BERDIANSK 036E48 46N47	FC CP UWH	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	036E48 46N47 200 km		481
1057	UKR URS	BERDIANSK 036E48 46N47	FC CO RADIO-5	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	036E48 46N47 700 km		524
964	UKR URS	EVPATORIIA 033E18 45N13	FC CO UNK	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	033E18 45N13 200 km		501
965	UKR URS	EVPATORIIA 033E18 45N13	FC CO UNK	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E18 45N13 200 km		501
966	UKR URS	EVPATORIIA 033E18 45N13	FC CP UNK	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E18 45N13 200 km	421.0000 kHz	473
932	UKR URS	FEODOSIIA 035E20 45N02	FC CO UEK-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	035E20 45N02 200 km		505
933	UKR URS	FEODOSIIA 035E20 45N02	FC CO UEK-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	035E20 45N02 200 km		505
934	UKR URS	FEODOSIIA 035E20 45N02	FC CP UEK-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	035E20 45N02 200 km	435.0000 kHz	476
1050	UKR URS	GENITCHESK 034E48 46N12	FC CP UEQ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E48 46N12 200 km	418.0000 kHz	472

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1051	UKR URS	GENITCHESK 034E48 46N12	FC CP UEQ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E48 46N12 200 km		481
1052	UKR URS	GENITCHESK 034E48 46N12	FC CP UEQ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E48 46N12 200 km		481
1053	UKR URS	GENITCHESK 034E48 46N12	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	034E48 46N12 700 km		523
935	UKR URS	IALTA 034E10 44N39	FC CO UFB-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E10 44N39 200 km		484
936	UKR URS	IALTA 034E10 44N39	FC CO UFB-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E10 44N39 200 km		484
937	UKR URS	IALTA 034E10 44N39	FC CP UFB-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E10 44N39 200 km		476
938	UKR URS	IALTA 034E10 44N39	FC CP UDC-9	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	034E10 44N39 350 km	518.0000 kHz	506
939	UKR URS	IALTA 034E10 44N39	FC CP UDC-9	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	034E10 44N39 350 km		500
940	UKR URS	IALTA 034E10 44N39	FC CP UDC-9	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	034E10 44N39 700 km		516
941	UKR URS	IALTA 034E10 44N39	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	034E10 44N39 700 km		528
942	UKR URS	IALTA 034E10 44N39	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	034E10 44N39 700 km		525
943	UKR URS	IALTA 034E10 44N39	FC CO RKHJ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E10 44N39 200 km		499
944	UKR URS	IALTA 034E10 44N39	FC CO RKHJ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E10 44N39 200 km		499
945	UKR URS	IALTA 034E10 44N39	FC CO RKHJ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E10 44N39 200 km	436.0000 kHz	477
946	UKR URS	IALTA 034E10 44N39	FC CO RKHJ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E10 44N39 200 km	436.0000 kHz	477
947	UKR URS	IALTA 034E10 44N39	FC CP UDC-9	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	034E10 44N39 350 km		484
948	UKR URS	IALTA 034E10 44N39	FC CP UDC-9	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	034E10 44N39 350 km		484
949	UKR URS	IALTA 034E10 44N39	FC CP UDC-9	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	034E10 44N39 350 km		510

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
950	UKR	IALTA		FC CP	0000-2400	100HA1A	X 30.0 dBW	ND	034E10 44N39	350 km		510
	URS		034E10 44N39	UDC-9	DUPLEX							
951	UKR	IALTA		FC CP	0000-2400	304HF1B	X 30.0 dBW	ND	034E10 44N39	350 km		497
	URS		034E10 44N39	UDC-9	DUPLEX							
952	UKR	IALTA		FC CP	0000-2400	100HA1A	X 30.0 dBW	ND	034E10 44N39	350 km		497
	URS		034E10 44N39	UDC-9	DUPLEX							
999	UKR	ILITCHEVSK		FC CO	0000-2400	2K35J3E	X 26.0 dBW	ND	030E41 46N19	700 km		526
	URS		030E41 46N19	RADIO-1	DUPLEX							
1000	UKR	ILITCHEVSK		FC CO	0000-2400	100HA1A	X 27.0 dBW	ND	030E41 46N19	200 km		486
	URS		030E41 46N19	UFN-2	DUPLEX							
1001	UKR	ILITCHEVSK		FC CP	0000-2400	304HF1B	X 27.0 dBW	ND	030E41 46N19	200 km		498
	URS		030E41 46N19	UFN-2	DUPLEX							
1002	UKR	ILITCHEVSK		FC CP	0000-2400	100HA1A	X 27.0 dBW	ND	030E41 46N19	200 km		498
	URS		030E41 46N19	UFN-2	DUPLEX							
1076	UKR	ILITCHEVSK		FC CO	0000-2400	304HF1B	X 27.0 dBW	ND	030E41 46N19	200 km		486
	URS		030E41 46N19	UFN-2	DUPLEX							
1024	UKR	IZMAIL		FC CO	0000-2400	304HF1B	X 27.0 dBW	ND	028E51 45N20	200 km		496
	URS		028E51 45N20	UJO-4	DUPLEX							
1025	UKR	IZMAIL		FC CO	0000-2400	100HA1A	X 27.0 dBW	ND	028E51 45N20	200 km		496
	URS		028E51 45N20	UJO-4	DUPLEX							
1026	UKR	IZMAIL		FC CO	0000-2400	304HF1B	X 27.0 dBW	ND	028E51 45N20	200 km		480
	URS		028E51 45N20	UJO-4	DUPLEX							
1027	UKR	IZMAIL		FC CO	0000-2400	100HA1A	X 27.0 dBW	ND	028E51 45N20	200 km		480
	URS		028E51 45N20	UJO-4	DUPLEX							
1028	UKR	IZMAIL		FC CP	0000-2400	2K35J3E	X 26.0 dBW	ND	028E51 45N20	700 km		519
	URS		028E51 45N20	RADIO	DUPLEX							
1029	UKR	IZMAIL		FC CO	0000-2400	2K35J3E	X 26.0 dBW	ND	028E51 45N20	700 km		526
	URS		028E51 45N20	RADIO-2	DUPLEX							
1030	UKR	IZMAIL		FC CO	0000-2400	304HF1B	X 30.0 dBW	ND	028E51 45N20	350 km		513
	URS		028E51 45N20	UJO-3	DUPLEX							
1031	UKR	IZMAIL		FC CO	0000-2400	100HA1A	X 30.0 dBW	ND	028E51 45N20	350 km		513
	URS		028E51 45N20	UJO-3	DUPLEX							
1032	UKR	IZMAIL		FC CP	0000-2400	304HF1B	X 30.0 dBW	ND	028E51 45N20	350 km		498
	URS		028E51 45N20	UJO-3	DUPLEX							
1033	UKR	IZMAIL		FC CP	0000-2400	100HA1A	X 30.0 dBW	ND	028E51 45N20	350 km		498
	URS		028E51 45N20	UJO-3	DUPLEX							

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1034	UKR URS	IZMAIL	028E51 45N20	FC CP UJO-3	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	028E51 45N20	350 km		480
1035	UKR URS	IZMAIL	028E51 45N20	FC CP UJO-3	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	028E51 45N20	350 km		480
1074	UKR URS	IZMAIL	028E51 45N20	FC CP UJO-3	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	028E51 45N20	350 km		500
1077	UKR URS	IZMAIL	028E51 45N20	FC CP UJO-3	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	028E51 45N20	200 km		518
1058	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 SIMPLEX	304HF1B	X 17.8 dBW	ND	037E31 47N08	200 km	518.0000 kHz	529
1059	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	037E31 47N08	700 km		514
1060	UKR URS	JDANOV	037E31 47N08	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E31 47N08	700 km		524
1061	UKR URS	JDANOV	037E31 47N08	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E31 47N08	700 km		521
1062	UKR URS	JDANOV	037E31 47N08	FC CO RQCT	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E31 47N08	350 km		471
1063	UKR URS	JDANOV	037E31 47N08	FC CO RQCT	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E31 47N08	350 km		477
1064	UKR URS	JDANOV	037E31 47N08	FC CO RQCT	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E31 47N08	350 km		477
1065	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E31 47N08	350 km		491
1066	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E31 47N08	350 km		491
1067	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E31 47N08	350 km		508
1068	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E31 47N08	350 km		508
1069	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E31 47N08	350 km	444.0000 kHz	485
1070	UKR URS	JDANOV	037E31 47N08	FC CP UDC	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E31 47N08	350 km	444.0000 kHz	485
1073	UKR URS	JDANOV	037E31 47N08	FC CO UDC	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E31 47N08	350 km		500

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
921	UKR URS	KERTCH	036E28 45N22	FC CP UKW	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	036E28 45N22 350 km		500
922	UKR URS	KERTCH	036E28 45N22	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	036E28 45N22 700 km		525
923	UKR URS	KERTCH	036E28 45N22	FC CO UJU	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	036E28 45N22 350 km		502
924	UKR URS	KERTCH	036E28 45N22	FC CO UJU	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	036E28 45N22 350 km		502
925	UKR URS	KERTCH	036E28 45N22	FC CO UJU	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	036E28 45N22 350 km	436.5000 kHz	478
926	UKR URS	KERTCH	036E28 45N22	FC CO UJU	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	036E28 45N22 350 km	436.5000 kHz	478
927	UKR URS	KERTCH	036E28 45N22	FC CO UJU	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	036E28 45N22 350 km	416.0000 kHz	471
928	UKR URS	KERTCH	036E28 45N22	FC CP UKW	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	036E28 45N22 200 km	476.0000 kHz	511
929	UKR URS	KERTCH	036E28 45N22	FC CP UKW	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E28 45N22 200 km	476.0000 kHz	511
930	UKR URS	KERTCH	036E28 45N22	FC CP UKW	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	036E28 45N22 200 km	458.0000 kHz	497
931	UKR URS	KERTCH	036E28 45N22	FC CP UKW	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E28 45N22 200 km	458.0000 kHz	497
1042	UKR URS	KERTCH	036E28 45N22	FC CO RQFY	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E28 45N22 200 km		512
1043	UKR URS	KERTCH	036E28 45N22	FC CO RQFY	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	036E28 45N22 200 km		512
1044	UKR URS	KERTCH	036E28 45N22	FC CO RQFY	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E28 45N22 200 km		497
1045	UKR URS	KERTCH	036E28 45N22	FC CO RQFY	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	036E28 45N22 200 km		497
1046	UKR URS	KERTCH	036E28 45N22	FC CO RKDP	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	036E28 45N22 200 km		512
1047	UKR URS	KERTCH	036E28 45N22	FC CO RKDP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E28 45N22 200 km		512
1048	UKR URS	KERTCH	036E28 45N22	FC CO RKDP	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	036E28 45N22 200 km		497

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1049	UKR URS	KERTCH 036E28 45N22	FC CO RKDP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	036E28 45N22 200 km		497
979	UKR URS	KHERSON 032E34 46N39	FC CO RADIO-4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	032E34 46N39 700 km		523
980	UKR URS	KHERSON 032E34 46N39	FC OT RSJR	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E34 46N39 200 km		509
981	UKR URS	KHERSON 032E34 46N39	FC OT RSJR	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E34 46N39 200 km		509
982	UKR URS	KHERSON 032E34 46N39	FC CO RSJR	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E34 46N39 200 km		472
983	UKR URS	KHERSON 032E34 46N39	FC CO UHZ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E34 46N39 200 km		496
984	UKR URS	KHERSON 032E34 46N39	FC CO UHZ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E34 46N39 200 km		496
985	UKR URS	KHERSON 032E34 46N39	FC CP UHZ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E34 46N39 200 km	487.0000 kHz	480
986	UKR URS	KHERSON 032E34 46N39	FC CP UHZ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E34 46N39 200 km	487.0000 kHz	480
1036	UKR URS	KILIIA 029E15 45N26	FC CP UJM-3	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	029E15 45N26 200 km		496
1037	UKR URS	KILIIA 029E15 45N26	FC CP UJM-3	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	029E15 45N26 200 km		496
1038	UKR URS	KILIIA 029E15 45N26	FC CP UJM-3	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	029E15 45N26 200 km		480
1039	UKR URS	KILIIA 029E15 45N26	FC CP UJM-3	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	029E15 45N26 200 km		480
967	UKR URS	NIKOLAEV 032E00 46N57	FC CO RWCX	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E00 46N57 200 km		509
968	UKR URS	NIKOLAEV 032E00 46N57	FC CO RWCX	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E00 46N57 200 km		509
969	UKR URS	NIKOLAEV 032E00 46N57	FC OT RWCX	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E00 46N57 200 km		472
970	UKR URS	NIKOLAEV 032E00 46N57	FC CO UOE	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E00 46N57 200 km		494
971	UKR URS	NIKOLAEV 032E00 46N57	FC CO UOE	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E00 46N57 200 km		494

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
972	UKR URS	NIKOLAEV 032E00 46N57	FC CO UOE	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E00 46N57 200 km	438.0000 kHz	479
973	UKR URS	NIKOLAEV 032E00 46N57	FC CO UOE	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E00 46N57 200 km	438.0000 kHz	479
920	UKR URS	NIKOPOL 034E25 47N36	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	034E25 47N36 700 km		523
1003	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	030E45 46N29 350 km		529
1004	UKR URS	ODESSA 030E45 46N29	FC CO ROOD	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	030E45 46N29 700 km		517
1005	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	030E45 46N29 700 km		515
1006	UKR URS	ODESSA 030E45 46N29	FC OT RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E45 46N29 700 km		520
1007	UKR URS	ODESSA 030E45 46N29	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E45 46N29 700 km		526
1008	UKR URS	ODESSA 030E45 46N29	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E45 46N29 700 km		522
1009	UKR URS	ODESSA 030E45 46N29	FC OT UPX-49	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E45 46N29 350 km		493
1010	UKR URS	ODESSA 030E45 46N29	FC OT UPX-49	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E45 46N29 350 km		493
1011	UKR URS	ODESSA 030E45 46N29	FC CO UPX-49	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E45 46N29 350 km		483
1012	UKR URS	ODESSA 030E45 46N29	FC CO UPX-49	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E45 46N29 350 km		483
1013	UKR URS	ODESSA 030E45 46N29	FC OT UDE	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E45 46N29 350 km	519.0000 kHz	507
1014	UKR URS	ODESSA 030E45 46N29	FC OT UDE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E45 46N29 350 km	519.0000 kHz	507
1015	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E45 46N29 350 km	476.0000 kHz	477
1016	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E45 46N29 350 km	476.0000 kHz	477
1017	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E45 46N29 350 km	447.0000 kHz	487

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1018	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E45 46N29 350 km	447.0000 kHz	487
1019	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E45 46N29 350 km	432.0000 kHz	475
1075	UKR URS	ODESSA 030E45 46N29	FC CP UDE	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E45 46N29 350 km		500
991	UKR URS	OTCHAKOV 031E30 46N37	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	031E30 46N37 700 km		523
992	UKR URS	OTCHAKOV 031E30 46N37	FC CO UEG	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	031E30 46N37 200 km		482
993	UKR URS	OTCHAKOV 031E30 46N37	FC CO UEG	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	031E30 46N37 200 km		482
994	UKR URS	OTCHAKOV 031E30 46N37	FC CO UEG	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	031E30 46N37 200 km	450.0000 kHz	489
995	UKR URS	OTCHAKOV 031E30 46N37	FC CO UEG	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	031E30 46N37 200 km	450.0000 kHz	489
996	UKR URS	OTCHAKOV 031E30 46N37	FC CP UED	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	031E30 46N37 200 km		503
997	UKR URS	OTCHAKOV 031E30 46N37	FC CP UED	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	031E30 46N37 200 km		503
998	UKR URS	OTCHAKOV 031E30 46N37	FC CP UED	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	031E30 46N37 200 km	429.0000 kHz	474
1020	UKR URS	RENI 028E18 45N29	FC CO UJN-3	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	028E18 45N29 200 km		496
1021	UKR URS	RENI 028E18 45N29	FC CO UJN-3	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	028E18 45N29 200 km		496
1022	UKR URS	RENI 028E18 45N29	FC CO UJN-3	0000-2400 DUPLEX	2K35J3E	X 27.0 dBW	ND	028E18 45N29 200 km		480
1023	UKR URS	RENI 028E18 45N29	FC CO UJN-3	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	028E18 45N29 200 km		480
953	UKR URS	SEVASTOPOL 033E32 44N34	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E32 44N34 700 km		525
954	UKR URS	SEVASTOPOL 033E32 44N34	FC OT URL-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E32 44N34 350 km		490
955	UKR URS	SEVASTOPOL 033E32 44N34	FC OT URL-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E32 44N34 350 km		490

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
956	UKR URS	SEVASTOPOL 033E32 44N34	FC CO URL-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E32 44N34 350 km	476.0000 kHz	512
957	UKR URS	SEVASTOPOL 033E32 44N34	FC CO URL-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E32 44N34 350 km	476.0000 kHz	512
958	UKR URS	SEVASTOPOL 033E32 44N34	FC CO URL-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E32 44N34 350 km		488
959	UKR URS	SEVASTOPOL 033E32 44N34	FC CO URL-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E32 44N34 350 km		488
960	UKR URS	SEVASTOPOL 033E32 44N34	FC CO UHO	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	033E32 44N34 200 km		492
961	UKR URS	SEVASTOPOL 033E32 44N34	FC CO UHO	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E32 44N34 200 km		492
962	UKR URS	SEVASTOPOL 033E32 44N34	FC CO UHO	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	033E32 44N34 200 km		504
963	UKR URS	SEVASTOPOL 033E32 44N34	FC CO UHO	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E32 44N34 200 km		504
987	UKR URS	SKADOVSK 032E56 46N07	FC CO UOI	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E56 46N07 200 km		499
988	UKR URS	SKADOVSK 032E56 46N07	FC CO UOI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E56 46N07 200 km		499
989	UKR URS	SKADOVSK 032E56 46N07	FC CO UOI	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E56 46N07 200 km		485
990	UKR URS	SKADOVSK 032E56 46N07	FC CO UOI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E56 46N07 200 km		485
974	UKR URS	TCHERNOMORSKOE 032E43 45N30	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	032E43 45N30 700 km		527
975	UKR URS	TCHERNOMORSKOE 032E43 45N30	FC OT UJB-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E43 45N30 200 km		483
976	UKR URS	TCHERNOMORSKOE 032E43 45N30	FC OT UJB-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E43 45N30 200 km		483
977	UKR URS	TCHERNOMORSKOE 032E43 45N30	FC CO UJB-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E43 45N30 200 km		495
978	UKR URS	TCHERNOMORSKOE 032E43 45N30	FC CO UJB-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E43 45N30 200 km		495

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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URS

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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1156	URS	ANAPA	037E20 44N54	FC CO RKOK	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E20 44N54 200 km		670
1157	URS	ANAPA	037E20 44N54	FC CO RKOK	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E20 44N54 200 km		670
1158	URS	ANAPA	037E20 44N54	FC CO RKOK	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E20 44N54 200 km		653
1159	URS	ANAPA	037E20 44N54	FC CO RKOK	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E20 44N54 200 km		653
1172	URS	ANAPA	037E20 44N54	FC OT RWNL	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E20 44N54 200 km		653
1173	URS	ANAPA	037E20 44N54	FC OT RWNL	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E20 44N54 200 km		653
1174	URS	ANAPA	037E20 44N54	FC CO RWNL	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E20 44N54 200 km		670
1175	URS	ANAPA	037E20 44N54	FC CO RWNL	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E20 44N54 200 km		670
1326	URS	ARKHANGHELSK	040E37 64N36	FC CO UFD-9	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	040E37 64N36 350 km		670
1327	URS	ARKHANGHELSK	040E37 64N36	FC CO UFD-9	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	040E37 64N36 350 km		670
1328	URS	ARKHANGHELSK	040E37 64N36	FC CP UGE	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	040E37 64N36 350 km		662
1329	URS	ARKHANGHELSK	040E37 64N36	FC CP UGE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	040E37 64N36 350 km		662
1330	URS	ARKHANGHELSK	040E37 64N36	FC OT RCXM	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	040E37 64N36 200 km		676
1331	URS	ARKHANGHELSK	040E37 64N36	FC OT RCXM	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	040E37 64N36 200 km		676
1332	URS	ARKHANGHELSK	040E37 64N36	FC CO UFD-9	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	040E37 64N36 500 km	484.0000 kHz	643

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1333	URS	ARKHANGHELSK 040E37 64N36	FC CO UFD-9	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	040E37 64N36 500 km	484.0000 kHz	643
1334	URS	ARKHANGHELSK 040E37 64N36	FC CO UFD-9	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	040E37 64N36 350 km		654
1335	URS	ARKHANGHELSK 040E37 64N36	FC CO UFD-9	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	040E37 64N36 350 km		654
1336	URS	ARKHANGHELSK 040E37 64N36	FC CP UGE	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	040E37 64N36 500 km	476.0000 kHz	637
1337	URS	ARKHANGHELSK 040E37 64N36	FC CP UGE	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	040E37 64N36 500 km	476.0000 kHz	637
1338	URS	ARKHANGHELSK 040E37 64N36	FC CP UGE	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	040E37 64N36 350 km	416.0000 kHz	629
1339	URS	ARKHANGHELSK 040E37 64N36	FC CO RADIO-6	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	040E37 64N36 700 km		735
1340	URS	ARKHANGHELSK 040E37 64N36	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	040E37 64N36 700 km		703
1341	URS	ARKHANGHELSK 040E37 64N36	FC CO RADIO-7	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	040E37 64N36 700 km		718
1342	URS	ARKHANGHELSK 040E37 64N36	FC OT RADIO-7	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	040E37 64N36 700 km		738
1343	URS	ARKHANGHELSK 040E37 64N36	FC CO UFD-9	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	040E37 64N36 700 km	1623.0000 kHz	700
1344	URS	ARKHANGHELSK 040E37 64N36	FC CP UGE	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	040E37 64N36 350 km		753
1584	URS	ARKHANGHELSK 040E37 64N36	FC CP UGE	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	040E37 64N36 350 km		661
1585	URS	ARKHANGHELSK 040E37 64N36	FC CP UGE	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	040E37 64N36 250 km		677
1097	URS	ASTRAKHAN 047E42 46N55	FC CO RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E42 46N55 700 km		744
1177	URS	ASTRAKHAN 047E42 46N55	FC CP UJB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E42 46N55 350 km		637
1178	URS	ASTRAKHAN 047E42 46N55	FC CP UJB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E42 46N55 350 km		637
1179	URS	ASTRAKHAN 047E42 46N55	FC CP UJB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E42 46N55 350 km		665

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1180	URS	ASTRAKHAN 047E42 46N55	FC CP UJB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E42 46N55 350 km		665
1181	URS	ASTRAKHAN 047E42 46N55	FC CO UKJ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E42 46N55 350 km	430.0000 kHz	632
1182	URS	ASTRAKHAN 047E42 46N55	FC CO UKJ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E42 46N55 350 km	475.0000 kHz	676
1183	URS	ASTRAKHAN 047E42 46N55	FC CO UKJ-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E42 46N55 350 km	475.0000 kHz	676
1184	URS	ASTRAKHAN 047E42 46N55	FC CO UKJ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E42 46N55 350 km		652
1185	URS	ASTRAKHAN 047E42 46N55	FC CO UKJ-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E42 46N55 350 km		652
1186	URS	ASTRAKHAN 047E42 46N55	FC OT RVD	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E42 46N55 350 km		647
1187	URS	ASTRAKHAN 047E42 46N55	FC OT RVD	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E42 46N55 350 km		647
1188	URS	ASTRAKHAN 047E42 46N55	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E42 46N55 700 km	1797.0000 kHz	750
1189	URS	ASTRAKHAN 047E42 46N55	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E42 46N55 700 km		744
1190	URS	ASTRAKHAN 047E42 46N55	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E42 46N55 700 km		728
1205	URS	ASTRAKHAN 047E42 46N55	FC CP UJB	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	047E42 46N55 700 km	1617.5000 kHz	691
1206	URS	ASTRAKHAN 047E42 46N55	FC CO UKJ-2	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	047E42 46N55 700 km		680
1207	URS	ASTRAKHAN 047E42 46N55	FC CP UJB	0000-2400 SIMPLEX	100HA1A	X 30.0 dBW	ND	047E42 46N55 350 km		668
1274	URS	ASTRAKHAN 047E42 46N55	FC CO UQB-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	047E42 46N55 200 km		637
1275	URS	ASTRAKHAN 047E42 46N55	FC CO UQB-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E42 46N55 200 km		637
1276	URS	ASTRAKHAN 047E42 46N55	FC CO UQB-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	047E42 46N55 200 km		658
1277	URS	ASTRAKHAN 047E42 46N55	FC CO UQB-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E42 46N55 200 km		658

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1278	URS	ASTRAKHAN 047E42 46N55	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E42 46N55 700 km		741
1580	URS	ASTRAKHAN 047E42 46N55	FC CP UJB	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	047E42 46N55 350 km		661
1292	URS	ATCHUEVO 037E27 45N43	FC CO RLAG	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E27 45N43 200 km		657
1293	URS	ATCHUEVO 037E27 45N43	FC CO RLAG	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E27 45N43 200 km		657
1294	URS	ATCHUEVO 037E27 45N43	FC CO RLAG	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E27 45N43 200 km		675
1295	URS	ATCHUEVO 037E27 45N43	FC CO RLAG	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E27 45N43 200 km		675
1201	URS	AZOV 039E25 45N53	FC CO RLAH	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	039E25 45N53 200 km		657
1202	URS	AZOV 039E25 45N53	FC CO RLAH	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E25 45N53 200 km		657
1203	URS	AZOV 039E25 45N53	FC CO RLAH	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E25 45N53 200 km		675
1204	URS	AZOV 039E25 45N53	FC CO RLAH	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	039E25 45N53 200 km		675
1099	URS	BAKU 049E45 40N20	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 27.0 dBW	ND	049E45 40N20 700 km		712
1100	URS	BAKU 049E45 40N20	FC CO RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	049E45 40N20 700 km		712
1222	URS	BAKU 049E45 40N20	FC CP UBJ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E45 40N20 350 km	416.0000 kHz	629
1223	URS	BAKU 049E45 40N20	FC CP UBJ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E45 40N20 350 km	476.0000 kHz	648
1224	URS	BAKU 049E45 40N20	FC CP UBJ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20 350 km	476.0000 kHz	648
1225	URS	BAKU 049E45 40N20	FC CO UBJ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E45 40N20 350 km		675
1226	URS	BAKU 049E45 40N20	FC CP UBJ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20 350 km		675
1227	URS	BAKU 049E45 40N20	FC CO UZN-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E45 40N20 350 km	519.0000 kHz	669

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1228	URS	BAKU	049E45 40N20	FC CO UZN-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20	350 km	519.0000 kHz	669
1229	URS	BAKU	049E45 40N20	FC CO UZN-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E45 40N20	350 km		659
1230	URS	BAKU	049E45 40N20	FC CO UZN-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20	350 km		659
1231	URS	BAKU	049E45 40N20	FC OT RGME	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E45 40N20	350 km		645
1232	URS	BAKU	049E45 40N20	FC OT RGME	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20	350 km		645
1233	URS	BAKU	049E45 40N20	FC OT RGME	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E45 40N20	350 km		659
1234	URS	BAKU	049E45 40N20	FC OT RGME	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20	350 km		659
1235	URS	BAKU	049E45 40N20	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	049E45 40N20	700 km		726
1236	URS	BAKU	049E45 40N20	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	049E45 40N20	700 km		719
1237	URS	BAKU	049E45 40N20	FC OT RADIO-6	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	049E45 40N20	700 km		742
1238	URS	BAKU	049E45 40N20	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	049E45 40N20	700 km		737
1239	URS	BAKU	049E45 40N20	FC CP UBJ	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	049E45 40N20	700 km		695
1240	URS	BAKU	049E45 40N20	FC CP UBJ	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20	350 km	518.0000 kHz	668
1581	URS	BAKU	049E45 40N20	FC CP UBJ	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	049E45 40N20	350 km		661
1110	URS	BATUMI	041E19 41N39	FC CP UFA	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	041E19 41N39	350 km	518.0000 kHz	668
1111	URS	BATUMI	041E19 41N39	FC CP UFA	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	041E19 41N39	700 km		685
1112	URS	BATUMI	041E19 41N39	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	041E19 41N39	700 km		717
1113	URS	BATUMI	041E19 41N39	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	041E19 41N39	700 km		736

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1114	URS	BATUMI	041E19 41N39	FC OT REOT	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	041E19 41N39	200 km		657
1115	URS	BATUMI	041E19 41N39	FC OT REOT	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	041E19 41N39	200 km		657
1116	URS	BATUMI	041E19 41N39	FC CO REOT	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	041E19 41N39	200 km		675
1117	URS	BATUMI	041E19 41N39	FC CO REOT	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	041E19 41N39	200 km		675
1118	URS	BATUMI	041E19 41N39	FC CO UFA	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	041E19 41N39	350 km		671
1119	URS	BATUMI	041E19 41N39	FC CO UFA	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	041E19 41N39	350 km		671
1120	URS	BATUMI	041E19 41N39	FC CP UFA	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	041E19 41N39	350 km	484.0000 kHz	644
1121	URS	BATUMI	041E19 41N39	FC CP UFA	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	041E19 41N39	350 km	484.0000 kHz	644
1122	URS	BATUMI	041E19 41N39	FC CP UFA	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	041E19 41N39	350 km		631
1579	URS	BATUMI	041E19 41N39	FC CP UFA	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	041E19 41N39	350 km		661
1271	URS	BEKTACH	052E34 41N37	FC CO UOH-8	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	052E34 41N37	200 km		637
1272	URS	BEKTACH	052E34 41N37	FC CO UOH-8	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	052E34 41N37	200 km		658
1273	URS	BEKTACH	052E34 41N37	FC CO UOH-8	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	052E34 41N37	200 km		658
1583	URS	BEKTACH	052E34 41N37	FC CO UOH-8	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	052E34 41N37	200 km		637
1471	URS	BELOMORSK	034E41 64N36	FC CO UCF	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E41 64N36	200 km		647
1472	URS	BELOMORSK	034E41 64N36	FC CO UCF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E41 64N36	200 km		647
1473	URS	BELOMORSK	034E41 64N36	FC OT RQHJ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E41 64N36	200 km		672
1474	URS	BELOMORSK	034E41 64N36	FC OT RQHJ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E41 64N36	200 km		672

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1475	URS	BELOMORSK 034E41 64N36	FC CO RQHJ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E41 64N36 200 km	461.0000 kHz	660
1476	URS	BELOMORSK 034E41 64N36	FC CO RQHJ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E41 64N36 200 km	461.0000 kHz	660
1477	URS	BELOMORSK 034E41 64N36	FC CO UCF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E41 64N36 200 km		630
1478	URS	BELOMORSK 034E41 64N36	FC CO RADIO-4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	034E41 64N36 700 km		748
1479	URS	BELOMORSK 034E41 64N36	FC CO RQHJ	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	034E41 64N36 700 km		688
1196	URS	EISK 038E15 46N41	FC CO RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	038E15 46N41 700 km		730
1197	URS	EISK 038E15 46N41	FC CO UXF	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E15 46N41 200 km		663
1198	URS	EISK 038E15 46N41	FC CO UXF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E15 46N41 200 km		663
1199	URS	EISK 038E15 46N41	FC CO UXF	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E15 46N41 200 km	450.0000 kHz	649
1200	URS	EISK 038E15 46N41	FC CO UXF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E15 46N41 200 km	450.0000 kHz	649
1242	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UEN-7	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	050E18 44N30 200 km		658
1243	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UEN-7	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	050E18 44N30 200 km		658
1244	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UEN-7	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	050E18 44N30 200 km		672
1245	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UEN-7	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	050E18 44N30 200 km		672
1246	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	050E18 44N30 700 km		716
1247	URS	FORT SHEVTCHENKO 050E18 44N30	FC CO RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	050E18 44N30 700 km		749
1248	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	050E18 44N30 700 km		723
1249	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UCC-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	050E18 44N30 200 km		672

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1250	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UCC-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	050E18 44N30 200 km		672
1251	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UCC-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	050E18 44N30 200 km		658
1252	URS	FORT SHEVTCHENKO 050E18 44N30	FC CP UCC-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	050E18 44N30 200 km		658
1253	URS	FORT SHEVTCHENKO 050E18 44N30	FC CO UKM	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	050E18 44N30 200 km		650
1254	URS	FORT SHEVTCHENKO 050E18 44N30	FC CO UKM	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	050E18 44N30 200 km		650
1255	URS	FORT SHEVTCHENKO 050E18 44N30	FC CO UKM	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	050E18 44N30 200 km		635
1256	URS	FORT SHEVTCHENKO 050E18 44N30	FC CO UKM	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	050E18 44N30 200 km		635
1103	URS	GELENDJIK 038E06 44N35	FC OT GELENDJI	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	038E06 44N35 700 km		729
1104	URS	GELENDJIK 038E06 44N35	FC OT RVK-9	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E06 44N35 350 km		655
1136	URS	GELENDJIK 038E06 44N35	FC CO RADIO-6	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	038E06 44N35 700 km		729
1079	URS	GURIEV 051E55 47N03	FC CO UJC-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		666
1080	URS	GURIEV 051E55 47N03	FC CO UJC-2	0000-2400 DUPLEX	100HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		666
1081	URS	GURIEV 051E55 47N03	FC CO UJC-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	051E55 47N03 200 km		632
1082	URS	GURIEV 051E55 47N03	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	051E55 47N03 700 km		749
1083	URS	GURIEV 051E55 47N03	FC CO RHFA	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		657
1084	URS	GURIEV 051E55 47N03	FC CO RHFA	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	051E55 47N03 200 km		657
1085	URS	GURIEV 051E55 47N03	FC CO RHFA	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		635
1086	URS	GURIEV 051E55 47N03	FC CO RHFA	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	051E55 47N03 200 km		635

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1257	URS	GURIEV	051E55 47N03	FC CP UEN-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	051E55 47N03 200 km		658
1258	URS	GURIEV	051E55 47N03	FC CP UEN-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		658
1259	URS	GURIEV	051E55 47N03	FC CP UEN-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	051E55 47N03 200 km		672
1260	URS	GURIEV	051E55 47N03	FC CP UEN-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		672
1261	URS	GURIEV	051E55 47N03	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	051E55 47N03 700 km		734
1284	URS	GURIEV	051E55 47N03	FC CO RNOA	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		657
1285	URS	GURIEV	051E55 47N03	FC CO RNOA	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	051E55 47N03 200 km		657
1286	URS	GURIEV	051E55 47N03	FC CO RNOA	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	051E55 47N03 200 km		635
1287	URS	GURIEV	051E55 47N03	FC CO RNOA	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	051E55 47N03 200 km		635
1521	URS	HAAPSALU	023E21 58N34	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	023E21 58N34 700 km		717
1522	URS	HAAPSALU	023E21 58N34	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	023E21 58N34 700 km		707
1105	URS	KALININGRAD	020E30 54N45	FC OT RUI-3	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	020E30 54N45 350 km		656
1106	URS	KALININGRAD	020E30 54N45	FC OT RUI-3	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	020E30 54N45 350 km		643
1107	URS	KALININGRAD	020E30 54N45	FC OT KALINING	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	020E30 54N45 700 km		726
1418	URS	KALININGRAD	020E30 54N45	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	020E30 54N45 700 km		709
1420	URS	KALININGRAD	020E30 54N45	FC CO RZIP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	020E30 54N45 200 km		652
1421	URS	KALININGRAD	020E30 54N45	FC CO RZIP	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	020E30 54N45 200 km		652
1422	URS	KALININGRAD	020E30 54N45	FC OT UGK-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	020E30 54N45 350 km	484.0000 kHz	656

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1423	URS	KALININGRAD 020E30 54N45	FC OT UGK-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	020E30 54N45 350 km	484.0000 kHz	656
1424	URS	KALININGRAD 020E30 54N45	FC CO UJY	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	020E30 54N45 350 km		665
1425	URS	KALININGRAD 020E30 54N45	FC CO UJY	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	020E30 54N45 350 km		665
1426	URS	KALININGRAD 020E30 54N45	FC CO UJY	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	020E30 54N45 350 km	476.0000 kHz	636
1427	URS	KALININGRAD 020E30 54N45	FC CO UJY	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	020E30 54N45 350 km	476.0000 kHz	636
1428	URS	KALININGRAD 020E30 54N45	FC CP UGK-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	020E30 54N45 350 km	472.0000 kHz	674
1429	URS	KALININGRAD 020E30 54N45	FC CP UGK-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	020E30 54N45 350 km	472.0000 kHz	674
1430	URS	KALININGRAD 020E30 54N45	FC CP UGK-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	020E30 54N45 350 km		640
1431	URS	KALININGRAD 020E30 54N45	FC CP UGK-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	020E30 54N45 350 km		640
1432	URS	KALININGRAD 020E30 54N45	FC CO RADIO-9	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	020E30 54N45 700 km		704
1433	URS	KALININGRAD 020E30 54N45	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	020E30 54N45 700 km		732
1434	URS	KALININGRAD 020E30 54N45	FC CO RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	020E30 54N45 700 km		722
1435	URS	KALININGRAD 020E30 54N45	FC CO UJY	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	020E30 54N45 700 km		679
1436	URS	KALININGRAD 020E30 54N45	FC CP UGK-2	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	020E30 54N45 700 km		694
1578	URS	KALININGRAD 020E30 54N45	FC CP UGK-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	020E30 54N45 350 km		661
1367	URS	KANDALAKCHA 032E29 67N10	FC CP UZI	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E29 67N10 200 km	447.0000 kHz	646
1368	URS	KANDALAKCHA 032E29 67N10	FC CP UZI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E29 67N10 200 km	447.0000 kHz	646
1369	URS	KANDALAKCHA 032E29 67N10	FC CP UZI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E29 67N10 200 km		657

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1370	URS	KANDALAKCHA 032E29 67N10	FC CP UZI	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E29 67N10 200 km		657
1371	URS	KANDALAKCHA 032E29 67N10	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	032E29 67N10 700 km		723
1486	URS	KESTENGA 032E00 65N55	FC CO RQIP	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E00 65N55 200 km		672
1487	URS	KESTENGA 032E00 65N55	FC CO RQIP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E00 65N55 200 km		672
1488	URS	KESTENGA 032E00 65N55	FC CO RQIP	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	032E00 65N55 200 km		660
1489	URS	KESTENGA 032E00 65N55	FC CO RQIP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	032E00 65N55 200 km		660
1087	URS	KHUDAT 048E39 41N38	FC CO RLMX	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	048E39 41N38 200 km		659
1088	URS	KHUDAT 048E39 41N38	FC CO RLMX	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	048E39 41N38 200 km		659
1089	URS	KHUDAT 048E39 41N38	FC CO RLMX	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	048E39 41N38 200 km		669
1090	URS	KHUDAT 048E39 41N38	FC CO RLMX	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	048E39 41N38 200 km		669
1448	URS	KINGISEPP 022E33 58N15	FC CO UNM-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	022E33 58N15 200 km		670
1456	URS	KINGISEPP 022E33 58N15	FC CO ESB-5	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	022E33 58N15 200 km		670
1457	URS	KINGISEPP 022E33 58N15	FC CO ESB-5	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	022E33 58N15 200 km		655
1458	URS	KINGISEPP 022E33 58N15	FC CO ESB-5	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	022E33 58N15 200 km		655
1459	URS	KINGISEPP 022E33 58N15	FC CO RKDG	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	022E33 58N15 200 km		670
1460	URS	KINGISEPP 022E33 58N15	FC CO RKDG	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	022E33 58N15 200 km		670
1461	URS	KINGISEPP 022E33 58N15	FC CO RKDG	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	022E33 58N15 200 km		655
1462	URS	KINGISEPP 022E33 58N15	FC CO RKDG	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	022E33 58N15 200 km		655

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1463	URS	KINGISEPP 022E33 58N15	FC CO RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	022E33 58N15 700 km		717
1464	URS	KINGISEPP 022E33 58N15	FC CO RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	022E33 58N15 700 km		707
1378	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E12 55N46 350 km		676
1379	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E12 55N46 350 km		648
1380	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E12 55N46 350 km		648
1381	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E12 55N46 350 km	455.0000 kHz	654
1382	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E12 55N46 350 km	455.0000 kHz	654
1383	URS	KLAIPEDA 021E12 55N46	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	021E12 55N46 700 km		724
1384	URS	KLAIPEDA 021E12 55N46	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	021E12 55N46 700 km		716
1385	URS	KLAIPEDA 021E12 55N46	FC CO RWWM	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	021E12 55N46 700 km		692
1386	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	021E12 55N46 700 km		687
1560	URS	KLAIPEDA 021E12 55N46	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	021E12 55N46 700 km		724
1561	URS	KLAIPEDA 021E12 55N46	FC CO UNM-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	021E12 55N46 200 km		664
1562	URS	KLAIPEDA 021E12 55N46	FC CO UNM-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	021E12 55N46 200 km		664
1563	URS	KLAIPEDA 021E12 55N46	FC CO UNM-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	021E12 55N52 200 km		658
1564	URS	KLAIPEDA 021E12 55N46	FC CO RWWM	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E12 55N46 350 km		651
1565	URS	KLAIPEDA 021E12 55N46	FC CO RWWM	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E12 55N46 350 km		651
1566	URS	KLAIPEDA 021E12 55N46	FC CO RWWM	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E12 55N46 350 km		646

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1567	URS	KLAIPEDA 021E12 55N46	FC CO RWWM	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E12 55N46 350 km		646
1568	URS	KLAIPEDA 021E12 55N46	FC CO RWWM	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E12 55N46 350 km	522.0000 kHz	672
1569	URS	KLAIPEDA 021E12 55N46	FC CO RWWM	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E12 55N46 350 km	522.0000 kHz	672
1570	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E12 55N46 350 km		676
1576	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E12 55N46 350 km		661
1577	URS	KLAIPEDA 021E12 55N46	FC CP UNM-2	0000-2400 SIMPLEX	100HA1A	X 27.0 dBW	ND	021E12 55N46 200 km		658
1499	URS	KOLGUEV 049E07 69N30	FC OT RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	049E07 69N30 700 km		713
1500	URS	KOLGUEV 049E07 69N30	FC OT UIK-7	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	049E07 69N30 350 km		652
1501	URS	KOLGUEV 049E07 69N30	FC OT UIK-7	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	049E07 69N30 350 km		652
1109	URS	KRASNODAR 039E01 45N03	FC CO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	039E01 45N03 700 km		730
1262	URS	KRASNOVODSK 052E57 40N00	FC CO UQR-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	052E57 40N00 200 km		660
1263	URS	KRASNOVODSK 052E57 40N00	FC CO UQR-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	052E57 40N00 200 km		660
1264	URS	KRASNOVODSK 052E57 40N00	FC CO UQR-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	052E57 40N00 200 km	462.0000 kHz	655
1265	URS	KRASNOVODSK 052E57 40N00	FC CO UQR-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	052E57 40N00 200 km	462.0000 kHz	655
1266	URS	KRASNOVODSK 052E57 40N00	FC CP UBD	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	052E57 40N00 200 km		667
1267	URS	KRASNOVODSK 052E57 40N00	FC CP UBD	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	052E57 40N00 200 km		667
1268	URS	KRASNOVODSK 052E57 40N00	FC CP UBD	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	052E57 40N00 200 km		634
1269	URS	KRASNOVODSK 052E57 40N00	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	052E57 40N00 700 km		711

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1270	URS	KRASNOVODSK 052E57 40N00	FC CP RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	052E57 40N00 700 km		731
1582	URS	KRASNOVODSK 052E57 40N00	FC CP UBD	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	052E57 40N00 350 km		661
1506	URS	LENINGRAD 030E21 59N59	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E21 59N59 700 km		710
1507	URS	LENINGRAD 030E21 59N59	FC CO RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E21 59N59 700 km		715
1508	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E21 59N59 350 km		656
1509	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E21 59N59 350 km		656
1510	URS	LENINGRAD 030E21 59N59	FC CO UCW-4	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	030E21 59N59 200 km		645
1511	URS	LENINGRAD 030E21 59N59	FC CO UCW-4	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	030E21 59N59 200 km		645
1512	URS	LENINGRAD 030E21 59N59	FC CO UCW-4	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	030E21 59N59 200 km		630
1513	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E21 59N59 350 km	516.0000 kHz	666
1514	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E21 59N59 350 km	516.0000 kHz	666
1515	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E21 59N59 350 km	484.0000 kHz	635
1516	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	030E21 59N59 350 km	484.0000 kHz	635
1517	URS	LENINGRAD 030E21 59N59	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E21 59N59 700 km		721
1518	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	030E21 59N59 700 km		690
1519	URS	LENINGRAD 030E21 59N59	FC CO RADIO-17	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E21 59N59 700 km		715
1520	URS	LENINGRAD 030E21 59N59	FC CO UBF-2	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	030E21 59N59 700 km		682
1572	URS	LENINGRAD 030E21 59N59	FC CP UDB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	030E21 59N59 200 km		661

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1401	URS	LIEPAIA 021E00 56N32	FC CO UPW-3	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	021E00 56N32 700 km		699
1402	URS	LIEPAIA 021E02 56N43	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	021E02 56N43 700 km		748
1403	URS	LIEPAIA 021E02 56N43	FC CO UPW-3	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E02 56N43 350 km	432.0000 kHz	633
1404	URS	LIEPAIA 021E02 56N43	FC CO UPW-3	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E02 56N43 350 km		666
1405	URS	LIEPAIA 021E02 56N43	FC CO UPW-3	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E02 56N43 350 km		666
1406	URS	LIEPAIA 021E02 56N43	FC CO UPW-3	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E02 56N43 350 km	441.0000 kHz	640
1407	URS	LIEPAIA 021E02 56N43	FC CO UPW-3	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E02 56N43 350 km	441.0000 kHz	640
1494	URS	LODEINOE 033E34 60N43	FC CO RIFI	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	033E34 60N43 200 km		660
1495	URS	LODEINOE 033E34 60N43	FC CO RIFI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E34 60N43 200 km		660
1496	URS	LODEINOE 033E34 60N43	FC CO RIFI	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	033E34 60N43 200 km		672
1497	URS	LODEINOE 033E34 60N43	FC CO RIFI	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E34 60N43 200 km		672
1498	URS	LODEINOE 033E34 60N43	FC CO RADIO-4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E34 60N43 700 km		720
1504	URS	LODEINOE 033E34 60N43	FC CO RADIO-4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E34 60N43 700 km		710
1091	URS	MAKHATCHKALA 047E30 42N59	FC CO RHRU	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	047E30 42N59 200 km		657
1092	URS	MAKHATCHKALA 047E30 42N59	FC CO RHRU	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E30 42N59 200 km		657
1093	URS	MAKHATCHKALA 047E30 42N59	FC CO RHRD	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	047E30 42N59 200 km		657
1094	URS	MAKHATCHKALA 047E30 42N59	FC CO RHRD	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E30 42N59 200 km		657
1208	URS	MAKHATCHKALA 047E30 42N59	FC CP UAW	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E30 42N59 350 km		649

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1209	URS	MAKHATCHKALA 047E30 42N59	FC CP UAW	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E30 42N59 350 km		649
1210	URS	MAKHATCHKALA 047E30 42N59	FC CP UAW	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E30 42N59 350 km		643
1211	URS	MAKHATCHKALA 047E30 42N59	FC CP UAW	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E30 42N59 350 km		643
1212	URS	MAKHATCHKALA 047E30 42N59	FC CO UAW	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E30 42N59 350 km		670
1213	URS	MAKHATCHKALA 047E30 42N59	FC CO UAW	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E30 42N59 350 km		670
1214	URS	MAKHATCHKALA 047E30 42N59	FC CO UDQ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E30 42N59 350 km	458.0000 kHz	657
1215	URS	MAKHATCHKALA 047E30 42N59	FC CO UDQ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E30 42N59 350 km	458.0000 kHz	657
1216	URS	MAKHATCHKALA 047E30 42N59	FC CO UDQ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E30 42N59 350 km		635
1217	URS	MAKHATCHKALA 047E30 42N59	FC CO UDQ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E30 42N59 350 km		635
1218	URS	MAKHATCHKALA 047E30 42N59	FC OT UDQ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	047E30 42N59 350 km		663
1219	URS	MAKHATCHKALA 047E30 42N59	FC OT UDQ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	047E30 42N59 350 km		663
1220	URS	MAKHATCHKALA 047E30 42N59	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E30 42N59 700 km		714
1221	URS	MAKHATCHKALA 047E30 42N59	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E30 42N59 700 km		739
1241	URS	MAKHATCHKALA 047E30 42N59	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E30 42N59 700 km		746
1571	URS	MAKHATCHKALA 047E30 42N59	FC CO UDK	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E30 42N59 200 km		697
1533	URS	MEDVEJIEGORSK 034E26 62N56	FC CO UNZ-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E26 62N56 200 km		630
1534	URS	MEDVEJIEGORSK 034E26 62N56	FC CO UNZ-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	034E26 62N56 350 km		646
1535	URS	MEDVEJIEGORSK 034E26 62N56	FC CO UNZ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	034E26 62N56 350 km		646

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1536	URS	MEDVEJIEGORSK 034E26 62N56	FC CO UNZ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	034E26 62N56 350 km		647
1537	URS	MEDVEJIEGORSK 034E26 62N56	FC CO UNZ-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	034E26 62N56 350 km		647
1353	URS	MEZEN 044E17 65N51	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	044E17 65N51 700 km		736
1354	URS	MEZEN 044E17 65N51	FC CO RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	044E17 65N51 700 km		708
1355	URS	MEZEN 044E17 65N51	FC CP UZT	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	044E17 65N51 200 km		645
1356	URS	MEZEN 044E17 65N51	FC CP UZT	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	044E17 65N51 200 km		645
1357	URS	MEZEN 044E17 65N51	FC CO RXAB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	044E17 65N51 200 km		670
1358	URS	MEZEN 044E17 65N51	FC CO RXAB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	044E17 65N51 200 km		670
1359	URS	MEZEN 044E17 65N51	FC CO RXAB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	044E17 65N51 200 km		649
1360	URS	MEZEN 044E17 65N51	FC CO RXAB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	044E17 65N51 200 km		649
1361	URS	MEZEN 044E17 65N51	FC CP UZT	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	044E17 65N51 200 km	487.0000 kHz	631
1078	URS	MUMRA 047E41 45N45	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E41 45N45 700 km		744
1098	URS	MUMRA 047E41 45N45	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	047E41 45N45 700 km		744
1288	URS	MUMRA 047E41 45N45	FC CO UBZ-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	047E41 45N45 200 km		639
1289	URS	MUMRA 047E41 45N45	FC CO UBZ-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E41 45N45 200 km		639
1290	URS	MUMRA 047E41 45N45	FC CO UBZ-2	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	047E41 45N45 200 km		655
1291	URS	MUMRA 047E41 45N45	FC CO UBZ-2	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E41 45N45 200 km		655
1305	URS	MURMANSK 033E10 68N58	FC CP UMN	0000-2400 SIMPLEX	304HF1B	X 30.0 dBW	ND	033E10 68N58 350 km		752

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1306	URS	MURMANSK 033E10 68N58	FC CP UMN	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E10 68N58 350 km		661
1307	URS	MURMANSK 033E10 68N58	FC CP UMN	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	033E10 68N58 700 km		698
1308	URS	MURMANSK 033E10 68N58	FC CO UDK	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	033E10 68N58 700 km		686
1309	URS	MURMANSK 033E10 68N58	FC CO RADIO-8	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E10 68N58 700 km		751
1310	URS	MURMANSK 033E10 68N58	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E10 68N58 700 km		750
1311	URS	MURMANSK 033E10 68N58	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E10 68N58 700 km	1741.0000 kHz	734
1312	URS	MURMANSK 033E10 68N58	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E10 68N58 700 km		725
1313	URS	MURMANSK 033E10 68N58	FC CP UMN	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E10 68N58 350 km	458.0000 kHz	657
1314	URS	MURMANSK 033E10 68N58	FC CP UMN	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E10 68N58 350 km	458.0000 kHz	657
1315	URS	MURMANSK 033E10 68N58	FC CP UMN	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	033E10 68N58 500 km	472.0000 kHz	639
1316	URS	MURMANSK 033E10 68N58	FC CP UMN	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	033E10 68N58 500 km	472.0000 kHz	639
1317	URS	MURMANSK 033E10 68N58	FC CO UDK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E10 68N58 350 km	435.0000 kHz	634
1318	URS	MURMANSK 033E10 68N58	FC CO UDK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E10 68N58 350 km		648
1319	URS	MURMANSK 033E10 68N58	FC CO UDK	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E10 68N58 350 km		648
1320	URS	MURMANSK 033E10 68N58	FC OT UMN	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E10 68N58 350 km		665
1321	URS	MURMANSK 033E10 68N58	FC OT UMN	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E10 68N58 350 km		665
1322	URS	MURMANSK 033E10 68N58	FC CO UDK	0000-2400 DUPLEX	100HA1A	X 37.0 dBW	ND	033E10 68N58 500 km		672
1323	URS	MURMANSK 033E10 68N58	FC CO UDK	0000-2400 DUPLEX	304HF1B	X 37.0 dBW	ND	033E10 68N58 500 km		672

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1324	URS	MURMANSK 033E10 68N58	FC OT UIE-7	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	033E10 68N58 350 km		642
1325	URS	MURMANSK 033E10 68N58	FC OT UIE-7	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	033E10 68N58 350 km		642
1502	URS	MURMANSK 033E10 68N58	FC CO RADIO-4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	033E10 68N58 700 km		720
1345	URS	NARIAN-MAR 053E00 67N39	FC CO UOY	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	053E00 67N39 350 km		673
1346	URS	NARIAN-MAR 053E00 67N39	FC CO UOY	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	053E00 67N39 350 km		673
1347	URS	NARIAN-MAR 053E00 67N39	FC CO RPMS	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	053E00 67N39 350 km		670
1348	URS	NARIAN-MAR 053E00 67N39	FC CO RPMS	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	053E00 67N39 350 km		670
1349	URS	NARIAN-MAR 053E00 67N39	FC CO RPMS	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	053E00 67N39 200 km		634
1350	URS	NARIAN-MAR 053E00 67N39	FC CP UOY	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	053E00 67N39 200 km		633
1351	URS	NARIAN-MAR 053E00 67N39	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	053E00 67N39 700 km		708
1352	URS	NARIAN-MAR 053E00 67N39	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	053E00 67N39 700 km		711
1483	URS	NARIAN-MAR 053E00 67N39	FC CO RCFX	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	053E00 67N39 200 km		670
1484	URS	NARIAN-MAR 053E00 67N39	FC CO RCFX	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	053E00 67N39 200 km		670
1485	URS	NARIAN-MAR 053E00 67N39	FC CO RCFX	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	053E00 67N39 200 km		634
1442	URS	NARVA-IESSU 028E12 59N22	FC CO RNYZ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	028E12 59N22 200 km		670
1443	URS	NARVA-IESSU 028E12 59N22	FC CO RNYZ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	028E12 59N22 200 km		670
1444	URS	NARVA-IESSU 028E12 59N22	FC CO RNYZ	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	028E12 59N22 200 km		655
1445	URS	NARVA-IESSU 028E12 59N22	FC CO RNYZ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	028E12 59N22 200 km		655

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1446	URS	NARVA-IESSU 028E12 59N22	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	028E12 59N22 700 km		707
1447	URS	NARVA-IESSU 028E12 59N22	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	028E12 59N22 700 km		717
1137	URS	NOVOROSSIISK 037E42 44N42	FC CP UDN	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E42 44N42 350 km		661
1138	URS	NOVOROSSIISK 037E42 44N42	FC CO UNQ-2	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	037E42 44N42 700 km		683
1139	URS	NOVOROSSIISK 037E42 44N42	FC CP UDN	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	037E42 44N42 700 km		702
1140	URS	NOVOROSSIISK 037E42 44N42	FC CO RADIO-4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E42 44N42 700 km		733
1141	URS	NOVOROSSIISK 037E42 44N42	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E42 44N42 700 km		745
1142	URS	NOVOROSSIISK 037E42 44N42	FC OT UNQ-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E42 44N42 350 km		660
1143	URS	NOVOROSSIISK 037E42 44N42	FC OT UNQ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E42 44N42 350 km		660
1144	URS	NOVOROSSIISK 037E42 44N42	FC CO UNQ-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E42 44N42 350 km	484.0000 kHz	670
1145	URS	NOVOROSSIISK 037E42 44N42	FC CO UNQ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E42 44N42 350 km	484.0000 kHz	670
1146	URS	NOVOROSSIISK 037E42 44N42	FC CO UNQ-2	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E42 44N42 350 km		636
1147	URS	NOVOROSSIISK 037E42 44N42	FC CO UNQ-2	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E42 44N42 350 km		636
1148	URS	NOVOROSSIISK 037E42 44N42	FC CP UDN	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E42 44N42 350 km	489.0000 kHz	676
1149	URS	NOVOROSSIISK 037E42 44N42	FC CP UDN	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E42 44N42 350 km	489.0000 kHz	676
1150	URS	NOVOROSSIISK 037E42 44N42	FC CP UDN	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	037E42 44N42 350 km		645
1151	URS	NOVOROSSIISK 037E42 44N42	FC CP UDN	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E42 44N42 350 km		645
1152	URS	NOVOROSSIISK 037E42 44N42	FC CP UDN	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	037E42 44N42 350 km	429.0000 kHz	632

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1362	URS	ONEGA	038E10 63N57	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	038E10 63N57 700 km		716
1363	URS	ONEGA	038E10 63N57	FC CP UZC	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E10 63N57 200 km	441.0000 kHz	640
1364	URS	ONEGA	038E10 63N57	FC CP UZC	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E10 63N57 200 km	441.0000 kHz	640
1365	URS	ONEGA	038E10 63N57	FC CO UZC	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E10 63N57 200 km		651
1366	URS	ONEGA	038E10 63N57	FC CO UZC	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E10 63N57 200 km		651
1480	URS	PERTOMINSK	038E27 64N48	FC CO RPSO	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E27 64N48 200 km		670
1481	URS	PERTOMINSK	038E27 64N48	FC CO RPSO	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E27 64N48 200 km		670
1482	URS	PERTOMINSK	038E27 64N48	FC CO RPSO	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E27 64N48 200 km		634
1505	URS	PETROKREPOST	031E00 59N54	FC CO RADIO-7	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	031E00 59N54 700 km		
1376	URS	PETROZAVODSK	034E19 61N48	FC OT RQHL	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E19 61N48 200 km		672
1377	URS	PETROZAVODSK	034E19 61N48	FC OT RQHL	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E19 61N48 200 km		672
1524	URS	PETROZAVODSK	034E19 61N48	FC CO RACZ	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E19 61N48 200 km		630
1525	URS	PETROZAVODSK	034E19 61N48	FC CO RQHL	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E19 61N48 200 km		660
1526	URS	PETROZAVODSK	034E19 61N48	FC CO RQHL	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E19 61N48 200 km		660
1527	URS	PETROZAVODSK	034E19 61N48	FC OT RACZ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	034E19 61N48 350 km		647
1528	URS	PETROZAVODSK	034E19 61N48	FC OT RACZ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	034E19 61N48 350 km		647
1529	URS	PETROZAVODSK	034E19 61N48	FC CO RACZ	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	034E19 61N48 350 km		646
1530	URS	PETROZAVODSK	034E19 61N48	FC CO RACZ	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	034E19 61N48 350 km		646

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1531	URS	PETROZAVODSK 034E19 61N48	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	034E19 61N48 700 km		706
1532	URS	PETROZAVODSK 034E19 61N48	FC CO RQHL	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	034E19 61N48 700 km		693
1465	URS	PIARNU 024E33 58N23	FC CO RKDF	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	024E33 58N23 200 km		670
1466	URS	PIARNU 024E33 58N23	FC CO RKDE	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	024E33 58N23 200 km		670
1467	URS	PIARNU 024E33 58N23	FC CO RKDF	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	024E33 58N23 200 km		655
1468	URS	PIARNU 024E33 58N23	FC CO RKDF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	024E33 58N23 200 km		655
1469	URS	PIARNU 024E33 58N23	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E33 58N23 700 km		707
1470	URS	PIARNU 024E33 58N23	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E33 58N23 700 km		717
1128	URS	PICUNDA 040E21 43N09	FC CO UUF-9	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	040E21 43N09 200 km		676
1129	URS	PICUNDA 040E21 43N09	FC CP UUF-9	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	040E21 43N09 200 km		649
1130	URS	PICUNDA 040E21 43N09	FC CP UUF-9	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	040E21 43N09 200 km		649
1586	URS	PICUNDA 040E21 43N09	FC CO UUF-9	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	040E21 43N09 200 km		676
1108	URS	POTI 041E49 42N08	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	041E49 42N08 700 km		717
1503	URS	PRIOZERSK 030E10 61N02	FC CO RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	030E10 61N02 700 km		710
1387	URS	RIGA 024E05 56N57	FC CO UQK	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E05 56N57 350 km		665
1388	URS	RIGA 024E05 56N57	FC CO UQK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E05 56N57 350 km		665
1389	URS	RIGA 024E05 56N57	FC CO UQK	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E05 56N57 350 km		638
1390	URS	RIGA 024E05 56N57	FC CO UQK	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E05 56N57 350 km		638

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1391	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E05 56N57 350 km		657
1392	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E05 56N57 350 km		657
1393	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E05 56N57 350 km	489.0000 kHz	667
1394	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E05 56N57 350 km	489.0000 kHz	667
1395	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E05 56N57 350 km	441.0000 kHz	645
1396	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E05 56N57 350 km	441.0000 kHz	645
1397	URS	RIGA	024E05 56N57	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E05 56N57 700 km		730
1398	URS	RIGA	024E05 56N57	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E05 56N57 700 km		705
1399	URS	RIGA	024E05 56N57	FC CO UQK	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	024E05 56N57 700 km		696
1400	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	024E05 56N57 700 km		678
1575	URS	RIGA	024E05 56N57	FC CP UKB	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E05 56N57 350 km		661
1176	URS	ROSTOV-NA-DONU	039E40 47N16	FC CO UMB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E40 47N16 200 km	522.0000 kHz	672
1191	URS	ROSTOV-NA-DONU	039E40 47N16	FC CO UMB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	039E40 47N16 200 km	522.0000 kHz	672
1192	URS	ROSTOV-NA-DONU	039E40 47N16	FC CO UMB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E40 47N16 200 km		649
1193	URS	ROSTOV-NA-DONU	039E40 47N16	FC CO UMB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	039E40 47N16 200 km		649
1194	URS	ROSTOV-NA-DONU	039E40 47N16	FC CO RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	039E40 47N16 700 km		740
1195	URS	ROSTOV-NA-DONU	039E40 47N16	FC CO RADIO-10	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	039E40 47N16 700 km		735
1523	URS	SALACGRIVA	024E21 57N45	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E21 57N45 700 km		730

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1131	URS	SOTCHI	039E45 43N36	FC CO RADIO-6	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	039E45 43N36	700 km		730
1132	URS	SOTCHI	039E45 43N36	FC CO UZB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	039E45 43N36	200 km	516.0000 kHz	666
1133	URS	SOTCHI	039E45 43N36	FC CO UZB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E45 43N36	200 km	516.0000 kHz	666
1134	URS	SOTCHI	039E45 43N36	FC CP UZB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	039E45 43N36	200 km		656
1135	URS	SOTCHI	039E45 43N36	FC CP UZB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E45 43N36	200 km		656
1123	URS	SUKHUMI	040E42 43N00	FC CO RADIO-5	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	040E42 43N00	700 km		717
1124	URS	SUKHUMI	040E42 43N00	FC CO UFF	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	040E42 43N00	200 km		676
1125	URS	SUKHUMI	040E42 43N00	FC CO UFF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	040E42 43N00	200 km		676
1126	URS	SUKHUMI	040E42 43N00	FC CP UFF	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	040E42 43N00	200 km		649
1127	URS	SUKHUMI	040E42 43N00	FC CP UFF	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	040E42 43N00	200 km		649
1419	URS	SVETLVI	020E06 54N40	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	020E06 54N40	700 km		709
1296	URS	TAGANROG	038E53 47N13	FC OT RQZP	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E53 47N13	200 km		657
1297	URS	TAGANROG	038E53 47N13	FC OT RQZP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E53 47N13	200 km		657
1298	URS	TAGANROG	038E53 47N13	FC CO RQZP	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E53 47N13	200 km		675
1299	URS	TAGANROG	038E53 47N13	FC CO RQZP	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E53 47N13	200 km		675
1300	URS	TAGANROG	038E53 47N13	FC CO UWT	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E53 47N13	200 km		659
1301	URS	TAGANROG	038E53 47N13	FC CO UWT	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E53 47N13	200 km		659
1302	URS	TAGANROG	038E53 47N13	FC CP UWT	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	038E53 47N13	200 km	441.0000 kHz	640

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1303	URS	TAGANROG 038E53 47N13	FC CP UWT	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	038E53 47N13 200 km	441.0000 kHz	640
1304	URS	TAGANROG 038E53 47N13	FC CO RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	038E53 47N13 700 km		735
1538	URS	TALLIN 024E46 59N24	FC OT RKBF	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E46 59N24 350 km		636
1539	URS	TALLIN 024E46 59N24	FC OT RKBF	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E46 59N24 350 km		636
1540	URS	TALLIN 024E46 59N24	FC CO RKBF	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E46 59N24 350 km	461.0000 kHz	660
1541	URS	TALLIN 024E46 59N24	FC CO RKBF	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E46 59N24 350 km	461.0000 kHz	660
1542	URS	TALLIN 024E46 59N24	FC CO RKBF	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E46 59N24 350 km		670
1543	URS	TALLIN 024E46 59N24	FC CO RKBF	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E46 59N24 350 km		670
1544	URS	TALLIN 024E46 59N24	FC CP UNS	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E46 59N24 350 km		675
1545	URS	TALLIN 024E46 59N24	FC CP UNS	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E46 59N24 350 km		675
1546	URS	TALLIN 024E46 59N24	FC CP UNS	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E46 59N24 350 km	472.0000 kHz	641
1547	URS	TALLIN 024E46 59N24	FC CP UNS	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E46 59N24 350 km	472.0000 kHz	641
1548	URS	TALLIN 024E46 59N24	FC CP UNS	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E46 59N24 350 km	450.0000 kHz	649
1549	URS	TALLIN 024E46 59N24	FC CP UNS	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	024E46 59N24 350 km	450.0000 kHz	649
1550	URS	TALLIN 024E46 59N24	FC CO RADIO-7	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E46 59N24 700 km		717
1551	URS	TALLIN 024E46 59N24	FC CO RADIO-7	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E46 59N24 700 km		707
1552	URS	TALLIN 024E46 59N24	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	024E46 59N24 700 km		714
1553	URS	TALLIN 024E46 59N24	FC CO RKBF	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	024E46 59N24 700 km		689

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1554	URS	TALLIN	024E46 59N24	FC CP UNS	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	024E46 59N24	700 km		684
1555	URS	TALLIN	024E46 59N24	FC CP UNS	0000-2400 SIMPLEX	304HF1B	X 17.8 dBW	ND	024E46 59N24	200 km		754
1573	URS	TALLIN	024E46 59N24	FC CP UNS	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	024E46 59N24	350 km		661
1437	URS	TARAN	019E59 54N58	FC CO RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	019E59 54N58	700 km		709
1438	URS	TARAN	019E59 54N58	FC CO USW	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	019E59 54N58	200 km		659
1439	URS	TARAN	019E59 54N58	FC CO USW	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	019E59 54N58	200 km		659
1440	URS	TARAN	019E59 54N58	FC CO USW	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	019E59 54N58	350 km		637
1441	URS	TARAN	019E59 54N58	FC CO USW	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	019E59 54N58	350 km		637
1279	URS	TCHELEKEN	053E24 39N24	FC CO UPJ-9	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	053E24 39N24	200 km		637
1280	URS	TCHELEKEN	053E24 39N24	FC CO UPJ-9	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	053E24 39N24	200 km		637
1281	URS	TCHELEKEN	053E24 39N24	FC CO UPJ-9	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	053E24 39N24	200 km		658
1282	URS	TCHELEKEN	053E24 39N24	FC CO UPJ-9	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	053E24 39N24	200 km		658
1283	URS	TCHELEKEN	053E24 39N24	FC CO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	053E24 39N24	700 km		705
1095	URS	TCHETCHEN	047E39 44N00	FC CO RCUG	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	047E39 44N00	200 km		657
1096	URS	TCHETCHEN	047E39 44N00	FC CO RCUG	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	047E39 44N00	200 km		657
1490	URS	TCHUPA	033E00 66N16	FC CO RQFN	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	033E00 66N16	200 km		672
1491	URS	TCHUPA	033E00 66N16	FC CO RQFN	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E00 66N16	200 km		672
1492	URS	TCHUPA	033E00 66N16	FC CO RQFN	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	033E00 66N16	200 km		660

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1493	URS	TCHUPA	033E00 66N16	FC CO RQFN	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	033E00 66N16 200 km		660
1101	URS	TEMRIUK	037E24 45N17	FC OT RVK-8	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E24 45N17 350 km		655
1102	URS	TEMRIUK	037E24 45N17	FC OT TEMRIUK4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E24 45N17 700 km		723
1165	URS	TEMRIUK	037E24 45N17	FC OT RADIO-2	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E24 45N17 700 km		747
1166	URS	TEMRIUK	037E24 45N17	FC CO RADIO-4	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E24 45N17 700 km		723
1167	URS	TEMRIUK	037E24 45N17	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	037E24 45N17 700 km		730
1168	URS	TEMRIUK	037E24 45N17	FC CO REQB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E24 45N17 200 km		653
1169	URS	TEMRIUK	037E24 45N17	FC CO REQB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E24 45N17 200 km		653
1170	URS	TEMRIUK	037E24 45N17	FC CO REQB	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	037E24 45N17 200 km		670
1171	URS	TEMRIUK	037E24 45N17	FC CO REQB	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	037E24 45N17 200 km		670
1153	URS	TUAPSE	039E05 44N01	FC CO UVW	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	039E05 44N01 200 km		663
1154	URS	TUAPSE	039E05 44N01	FC CO UVW	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E05 44N01 200 km		663
1155	URS	TUAPSE	039E05 44N01	FC CP UVW	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	039E05 44N01 200 km		633
1372	URS	UMBA	034E22 66N41	FC CP ULL-3	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E22 66N41 200 km		646
1373	URS	UMBA	034E22 66N41	FC CP ULL-3	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E22 66N41 200 km		646
1374	URS	UMBA	034E22 66N41	FC CO ULL-3	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	034E22 66N41 200 km		657
1375	URS	UMBA	034E22 66N41	FC CO ULL-3	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	034E22 66N41 200 km		657
1408	URS	VENTSPILS	021E32 57N24	FC CP UNI	0000-2400 SIMPLEX	304HF1B	X 17.8 dBW	ND	021E32 57N24 200 km		668

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1409	URS	VENTSPILS 021E32 57N24	FC CO YLZ	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	021E32 57N24 700 km		701
1410	URS	VENTSPILS 021E32 57N24	FC CP UNI	0000-2400 DUPLEX	304HF1B	X 26.0 dBW	ND	021E32 57N24 700 km		681
1411	URS	VENTSPILS 021E32 57N24	FC CP RADIO	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	021E32 57N24 700 km		711
1412	URS	VENTSPILS 021E32 57N24	FC CO RADIO-1	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	021E32 57N24 700 km		743
1413	URS	VENTSPILS 021E32 57N24	FC CP UNI	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E32 57N24 350 km	429.0000 kHz	632
1414	URS	VENTSPILS 021E32 57N24	FC CP UNI	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E32 57N24 350 km		635
1415	URS	VENTSPILS 021E32 57N24	FC CP UNI	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E32 57N24 350 km		635
1416	URS	VENTSPILS 021E32 57N24	FC CO UNI	0000-2400 DUPLEX	100HA1A	X 30.0 dBW	ND	021E32 57N24 350 km		662
1417	URS	VENTSPILS 021E32 57N24	FC CO UNI	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E32 57N24 350 km		662
1574	URS	VENTSPILS 021E32 57N24	FC CP UNI	0000-2400 DUPLEX	304HF1B	X 30.0 dBW	ND	021E32 57N24 350 km		661
1160	URS	VILKOVO 029E36 45N25	FC CO RADIO-3	0000-2400 DUPLEX	2K35J3E	X 26.0 dBW	ND	029E36 45N25 700 km		727
1161	URS	VILKOVO 029E36 45N25	FC CO RPTA	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	029E36 45N25 200 km		670
1162	URS	VILKOVO 029E36 45N25	FC CO RPTA	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	029E36 45N25 200 km		670
1163	URS	VILKOVO 029E36 45N25	FC CO RPTA	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	029E36 45N25 200 km		649
1164	URS	VILKOVO 029E36 45N25	FC CO RPTA	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	029E36 45N25 200 km		649
1556	URS	VYBORG 028E46 60N42	FC CO UNN	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	028E46 60N42 200 km		659
1557	URS	VYBORG 028E46 60N42	FC CO UNN	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	028E46 60N42 200 km		659
1558	URS	VYBORG 028E46 60N42	FC CP UNN	0000-2400 DUPLEX	100HA1A	X 27.0 dBW	ND	028E46 60N42 200 km	444.0000 kHz	643

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
1559	URS	VYBORG	028E46 60N42	FC CP UNN	0000-2400 DUPLEX	304HF1B	X 27.0 dBW	ND	028E46 60N42	200 km	444.0000 kHz	643

YMS

Yémen (République démocratique populaire du)
Yemen (People's Democratic Republic of)
Yemen (República Democrática Popular del)

32	YMS	HISWA	044E54 12N49	FC CP 70A	0000-2400 DUPLEX	100HA1AAN	X 30.0 dBW	ND	044E54 12N49	800 km	448.0000 kHz	468
33	YMS	HISWA	044E54 12N49	FC CP 70A	0000-2400 DUPLEX	100HA1AAN	X 30.0 dBW	ND	044E54 I2N49	800 km	514.0000 kHz	468

YUG

Yougoslavie (République socialiste fédérative de)
Yugoslavia (Socialist Federal Republic of)
Yugoslavia (República Socialista Federativa de)

844	YUG	BAR	019E06 42N01	FC CP YUW	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	019E06 42N01	300 km	437.0000 kHz	142
850	YUG	BAR	019E06 42N01	FC CP YUW	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 dBW	ND	019E06 42N01	300 km	445.0000 kHz	142
856	YUG	BAR	019E06 42N01	FC CP	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	019E06 42N01	300 km	1720.4000 kHz	142
862	YUG	BAR	019E06 42N01	FC CP YUW	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	019E06 42N01	300 km	1623.0000 kHz	142
843	YUG	DUBROVNIK	018E07 42N38	FC CP YUX	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	018E07 42N38	300 km	439.0000 kHz	142
849	YUG	DUBROVNIK	018E07 42N38	FC CP YUX	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 dBW	ND	018E07 42N38	300 km	447.0000 kHz	142
855	YUG	DUBROVNIK	018E07 42N38	FC CP	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	018E07 42N38	300 km	1705.4000 kHz	142
861	YUG	DUBROVNIK	018E07 42N38	FC CP YUX	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	018E07 42N38	300 km	1617.0000 kHz	142

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
839	YUG	KOPER	013E44 45N33	FC CP YUK	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	013E44 45N33	300 km	449.0000 kHz	142
845	YUG	KOPER	013E44 45N33	FC CP YUK	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 dBW	ND	013E44 45N33	300 km	442.0000 kHz	142
851	YUG	KOPER	013E44 45N33	FC CP	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	013E44 45N33	300 km	1642.4000 kHz	142
857	YUG	KOPER	013E44 45N33	FC CP YUK	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	013E44 45N33	300 km	1608.0000 kHz	142
840	YUG	RIJEKA	014E33 45N07	FC CP YUR	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	014E33 45N07	300 km	438.0000 kHz	142
846	YUG	RIJEKA	014E33 45N07	FC CP YUR	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 dBW	ND	014E33 45N07	300 km	446.0000 kHz	142
852	YUG	RIJEKA	014E33 45N07	FC CP	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	014E33 45N07	300 km	1657.4000 kHz	142
858	YUG	RIJEKA	014E33 45N07	FC CP YUR	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	014E33 45N07	300 km	1614.0000 kHz	142
842	YUG	SPLIT	016E29 43N30	FC CP YUS	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	016E29 43N30	300 km	436.0000 kHz	142
848	YUG	SPLIT	016E29 43N30	FC CP YUS	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 dBW	ND	016E29 43N30	300 km	444.0000 kHz	142
854	YUG	SPLIT	016E29 43N30	FC CP	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	016E29 43N30	300 km	1687.4000 kHz	142
860	YUG	SPLIT	016E29 43N30	FC CP YUS	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	016E29 43N30	300 km	1611.0000 kHz	142
841	YUG	ZADAR	015E14 44N07	FC CP YUZ	0000-2400 SIMPLEX	100HA1AAN	X 30.0 dBW	ND	015E14 44N07	300 km	440.5000 kHz	142
847	YUG	ZADAR	015E14 44N07	FC CP YUZ	0000-2400 SIMPLEX	134HJ2BCN	X 30.0 dBW	ND	015E14 44N07	300 km	448.0000 kHz	142
853	YUG	ZADAR	015E14 44N07	FC CP	0000-2400 SIMPLEX	2K70J3EJN	X 30.0 dBW	ND	015E14 44N07	300 km	1672.4000 kHz	142
859	YUG	ZADAR	015E14 44N07	FC CP YUZ	0000-2400 SIMPLEX	304HF1BCN	X 30.0 dBW	ND	015E14 44N07	300 km	1620.0000 kHz	142

Annex 3

Explanation of the symbols included in the list in Annex 4

IFRB NO.	Serial number given by the IFRB for identification of the requirement.
COU	Country or geographical area in which the station is located.
ADM	Country symbol designating the Administration submitting the requirement.
TRANSMITTING-STATION	Name by which the station will be known.
COORDINATES	Geographical coordinates of the site of the transmitting antenna in degrees and minutes.
CL.	Class of station, AL = Aeronautical Radiobeacon.
NAT.	Nature of service.
IDENTIFIC.	Identification signal to be used by the station.
OP-HOURS	Hours of operation of the station (UTC).
EMISSION	Characteristics of the emission.
POWER	Power supplied to the antenna in dBW.
ANT-GAIN	In case of directional antenna, the maximum antenna gain.
AZIMUTH	In case of directional antenna, the azimuth of maximum radiation of the transmitting antenna; In case of non-directional antenna : ND.
BEAM-WIDTH	Angular width of radiation of the main lobe.
SERVICE AREA	In case of a circular service area : the geographical coordinates of the center and value of the radius; In case of a service area defined by points : the geographical coordinates of the points limiting the service area.
FREQUENCY-IN-USE	Frequency currently in use.
PREFERRED-BAND	Desired frequency band for the requirement.
REMARK	Identification number of the Remark, which appears in Annex 5.

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		ALB			**Albanie (République populaire socialiste d') Albania (Socialist People's Republic of) Albania (República Popular Socialista de)**								
50427	ALB	RINAS	019E43 41N25	AL RC VL	0000-2400	2K10A2AAN	Y	27.0 dBW	ND	019E43 41N25	80 km	425.0000 kHz	
		ARS			**Arabie saoudite (Royaume d') Saudi Arabia (Kingdom of) Arabia Saudita (Reino de)**								
50493	ARS	AL JOUF AIRPORT	040E05 29N47	AL RC AJF	0000-2400	1K02A2AAN	X	20.0 dBW	ND	040E05 29N47	128 km	420.0000 kHz	
50494	ARS	BIR DURB	041E49 24N20	AL RC BDB	0000-2400	1K02A2AAN	X	20.0 dBW	ND	041E49 24N20	128 km	418.0000 kHz	
50500	ARS	FARZAN ISLAND	042E50 16N45	AL RC FZI	0000-2400	1K02A2AAN	X	20.0 dBW	ND	042E50 16N45	128 km	525.0000 kHz	
50491	ARS	HALAIFA	039E16 26N26	AL RC HLF	0000-2400	1K02A2AAN	X	20.0 dBW	ND	039E16 26N26	128 km	428.0000 kHz	
50495	ARS	HOFUF	049E29 25N24	AL RC HUF	0000-2400	1K02A2AAN	X	20.0 dBW	ND	049E29 25N24	128 km	434.0000 kHz	
50499	ARS	KAMIS MUSHAYT	042E25 18N18	AL RC KAM	0000-2400	1K02A2AAN	X	20.0 dBW	ND	042E25 18N18	128 km	422.0000 kHz	
50496	ARS	MAGALA	047E16 26N52	AL RC MGA	0000-2400	1K02A2AAN	X	20.0 dBW	ND	047E16 26N52	128 km	429.0000 kHz	
50492	ARS	RAGHBA	044E35 23N55	AL RC RGB	0000-2400	1K02A2AAN	X	20.0 dBW	ND	044E35 23N55	128 km	424.0000 kHz	
50497	ARS	SIBLI INTERSECTION	046E23 26N57	AL RC SBI	0000-2400	1K02A2AAN	X	20.0 dBW	ND	046E23 26N57	128 km	417.0000 kHz	
50498	ARS	SULAYEL	045E41 20N34	AL RC SUL	0000-2400	1K02A2AAN	X	20.0 dBW	ND	045E41 20N34	128 km	415.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
AUT								**Autriche Austria**					
50422	AUT	GLEICHENBERG	015E48 46N53	AL RC GBG	0000-2400	2K10A2A	Y	20.0 dBW	ND	015E48 46N53	75 km	449.0000 kHz	1219
50425	AUT	INNSBRUCK	011E24 47N14	AL RC INN	0000-2400	2K10A2A	Y	26.0 dBW	ND	011E24 47N14	75 km	278.0000 kHz	1222
50423	AUT	VILLACH	013E55 46N42	AL RC VIW	0000-2400	2K10A2A	Y	26.0 dBW	ND	013E55 46N42	110 km	259.5000 kHz	1220
50424	AUT	ZELTWEG	014E45 47N12	AL RC ZW	0000-2400	2K10A2A	Y	26.0 dBW	ND	014E45 47N12	75 km	418.0000 kHz	1221
AZR								**Açores Azores**					
50322	AZR POR	CORVO	031W07 39N40	AL RC CV	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	031W07 39N40	50 km		
50382	AZR POR	LAJES	027W06 38N46	AL RC	0000-2400	100HA1A	X	20.0 dBW	ND	027W06 38N46	300 km	416.0000 kHz	464
50320	AZR POR	PICO	028W27 38N33	AL RC PI	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	028W27 38N33	50 km		
50321	AZR POR	S JORGE	028W10 38N40	AL RC JOR	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	028W10 38N40	50 km		

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
BEL							**Belgique Belgium Bélgica**					
50472	BEL	SINT TRUIDEN 005E11 50N46	AL RC ST	0000-2400	100HA1A	X	16.9 dBW	ND	005E11 50N46	90 km	510.0000 kHz	
BLR							**Biélorussie (République Socialiste Soviétique de) Byelorussian Soviet Socialist Republic Bielorrusia (República Socialista Soviética de)**					
50285	BLR URS	BREST 023E39 52N07	AL RC MC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	023E39 52N07	150 km		290
50288	BLR URS	GOMEL 031E01 52N25	AL RC MV	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	031E01 52N25	150 km		293
50389	BLR URS	GOMEL 031E01 52N25	AL RC M	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	031E01 52N25	50 km		296
50289	BLR URS	MINSK 027E31 53N53	AL RC NE	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	027E31 53N53	150 km		294
50287	BLR URS	MOGILEV 030E17 53N55	AL RC CO	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	030E17 53N55	150 km		292
50286	BLR URS	VITEBSK 030E11 55N13	AL RC L	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	030E11 55N13	50 km		291
50290	BLR URS	VITEBSK 030E11 55N13	AL RC UU	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	030E11 55N13	150 km	524.0000 kHz	295

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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BUL

Bulgarie (République populaire de)
Bulgaria (People's Republic of)
Bulgaria (República Popular de)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50477	BUL	BARNA	027E52 43N13	AL RC WR	0000-2400	100HA1A	Y	30.0 dBW	ND	027E52 43N13	100 km	526.0000 kHz	
50485	BUL	BOURGAS	027E30 42N33	AL RC BR	0000-2400	100HA1A	Y	24.0 dBW	ND	027E30 42N33	30 km	431.0000 kHz	
50486	BUL	BOURGAS	027E30 42N33	AL RC BS	0000-2400	100HA1A	Y	24.0 dBW	ND	027E30 42N33	30 km	508.0000 kHz	
50487	BUL	HASKOVO	025E23 41N56	AL RC HS	0000-2400	100HA1A	Y	24.0 dBW	ND	025E23 41N56	30 km	513.0000 kHz	
50484	BUL	IAMBOL	026E30 42N28	AL RC IA	0000-2400	100HA1A	Y	24.0 dBW	ND	026E30 42N28	30 km	505.0000 kHz	
50488	BUL	PLEVEN	024E35 43N24	AL RC PN	0000-2400	100HA1A	Y	24.0 dBW	ND	024E35 43N24	30 km	425.0000 kHz	
50489	BUL	PLEVEN	024E35 43N24	AL RC PE	0000-2400	100HA1A	Y	24.0 dBW	ND	024E35 43N24	30 km	435.0000 kHz	
50481	BUL	PLOVDIV	024E41 42N04	AL RC PL	0000-2400	100HA1A	Y	24.0 dBW	ND	024E41 42N04	30 km	420.0000 kHz	
50490	BUL	ROUSSE	026E00 43N50	AL RC RUS	0000-2400	100HA1A	Y	30.0 dBW	ND	026E00 43N50	100 km	415.0000 kHz	
50480	BUL	SILISTRA	027E16 44N07	AL RC S	0000-2400	100HA1A	Y	30.0 dBW	ND	027E16 44N07	100 km	526.0000 kHz	
50479	BUL	SLIVAN	026E12 42N35	AL RC SV	0000-2400	100HA1A	Y	30.0 dBW	ND	024E12 42N35	100 km	526.0000 kHz	
50478	BUL	SOFIA	023E24 42N41	AL RC SF	0000-2400	100HA1A	Y	30.0 dBW	ND	023E24 42N41	100 km	526.0000 kHz	
50482	BUL	SOFIA	023E24 42N41	AL RC SA	0000-2400	100HA1A	Y	24.0 dBW	ND	023E24 42N41	30 km	430.0000 kHz	
50483	BUL	TOLBOUHIN	027E50 43N35	AL RC TO	0000-2400	100HA1A	Y	24.0 dBW	ND	027E50 43N35	30 km	520.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
****

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		CYP				**Chypre (République de) Cyprus (Republic of) Chipre (República de)**				
50324	CYP	NICOSIA 033E22 35N09	AL RC NIC	0000-2400	2K10A2A	Y 30.0 dBW	ND	033E22 35N09 250 km	267.0000 kHz 400 kHz	76
50325	CYP	NICOSIA 033E22 35N09	AL RC NIC	0000-2400	2K10A2A	Y 30.0 dBW	ND	033E22 35N09 250 km	267.0000 kHz 500 kHz	76
		D				**Allemagne ((République fédérale d') Germany (Federal Republic of) Alemania (República Federal de)**				
50460	D	AACHEN-MERZBRUCK 006E11 50N50	AL RC	0000-2400	2K00A2A	Y 20.0 dBW	ND	006E11 50N50 47 km		1242
50444	D	ALLENDORF-EDER 008E41 51N02	AL RC	0000-2400	2K00A2A	X 20.0 dBW	ND	008E41 51N02 47 km		1244
50450	D	BARMEN 007E11 51N20	AL RC BAM	0000-2400	2K00A2A	X 20.0 dBW	ND	007E11 51N20 56 km	431.0000 kHz	1248
50436	D	BAYREUTH 011E34 49N58	AL RC BAZ	0000-2400	2K00A2A	X 20.0 dBW	ND	011E34 49N58 47 km	420.0000 kHz	1237
50433	D	BORKUM 006E43 53N36	AL RC	0000-2400	2K00A2A	X 20.0 dBW	ND	006E43 53N36 47 km		1236
50443	D	BRAUNSCHWEIG 010E36 52N19	AL RC BRU	0000-2400	2K00A2A	X 20.0 dBW	ND	010E36 52N19 38 km	427.0000 kHz	1244
50449	D	BREMGARTEN 007E38 47N55	AL RC BGT	0000-2400	2K00A2A	Y 24.0 dBW	ND	007E38 47N55 93 km	430.0000 kHz	1247
50459	D	BRILON 008E35 51N25	AL RC	0000-2400	2K00A2A	Y 20.0 dBW	ND	008E35 51N25 47 km		1240
50435	D	BUECHEL 007E08 50N16	AL RC BUE	0000-2400	2K00A2A	X 20.0 dBW	ND	007E08 50N16 93 km	420.0000 kHz	1237
50454	D	COLEMAN 008E32 49N36	AL RC HDM	0000-2400	2K00A2A	X 20.0 dBW	ND	008E24 49N32 47 km	492.0000 kHz	1250

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50451	D	DEINING 011E33 49N13	AL RC AAE	0000-2400	2K00A2A	X	20.0 dBW	ND	011E33 49N13	47 km	431.0000 kHz	1248
50445	D	DITTMUNDHAVEN 007E48 53N34	AL RC WM	0000-2400	2K00A2A	Y	20.0 dBW	ND	007E48 53N34	93 km	255.0000 kHz	1245
50461	D	EINBECK 009E50 51N50	AL RC	0000-2400	2K00A2A	Y	20.0 dBW	ND	009E50 51N50	47 km		1235
50439	D	EMDEN 007E14 53N24	AL RC	0000-2400	2K00A2A	X	20.0 dBW	ND	007E14 53N24	47 km		1240
50430	D	FASSBERG 010E11 52N55	AL RC FSB	0000-2400	2K00A2A	Y	20.0 dBW	ND	010E11 52N55	93 km	240.0000 kHz	1233
50456	D	GIEBELSTADT 009E59 49N39	AL RC GBL	0000-2400	2K00A2A	Y	14.0 dBW	ND	009E59 49N39	28 km	507.0000 kHz	1251
50453	D	HANAU 008E57 50N10	AL RC HNX	0000-2400	2K00A2A	X	20.0 dBW	ND	008E57 50N10	47 km	240.0000 kHz	1249
50432	D	HEIDELBERG 008E36 49N23	AL RC HDL	0000-2400	2K00A2A	Y	17.0 dBW	ND	008E36 49N23	47 km	417.0000 kHz	1235
50441	D	JGELSBACH 010E52 49N09	AL RC ZXY	0000-2400	2K00A2A	X	20.0 dBW	ND	010E52 49N09	28 km	206.0000 kHz	1241
50431	D	LECK 009E04 54N46	AL RC LCK	0000-2400	2K00A2A	Y	20.0 dBW	ND	009E04 54N46	47 km	416.5000 kHz	1234
50452	D	LEMWERDER 008E37 53N08	AL RC	0000-2400	2K00A2A	X	20.0 dBW	ND	008E37 53N08	47 km		1249
50442	D	MIKE 011E36 48N34	AL RC MIQ	0000-2400	2K00A2A	X	20.0 dBW	ND	011E36 48N34	47 km	426.5000 kHz	1243
50429	D	NOERVENICH 006E40 50N50	AL RC NOR	0000-2400	2K00A2A	X	20.0 dBW	ND	006E40 50N50	65 km		1233
50440	D	NUESTER TELGTE 017E46 51N57	AL RC	0000-2400	2K00A2A	X	20.0 dBW	ND	007E46 51N57	47 km		1241
50448	D	OBERPFAFFENHOFEN 011E17 48N05	AL RC	0000-2400	2K00A2A	X	20.0 dBW	ND	011E17 48N05	47 km		1246
50437	D	OSNABR ATTERHEIDE 007E58 52N17	AL RC	0000-2400	2K00A2A	X	20.0 dBW	ND	007E58 52N17	47 km		1238
50428	D	ROTHENBACH 011E15 49N29	AL RC RTB	0000-2400	2K00A2A	X	20.0 dBW	ND	011E15 49N29	93 km		1233
50457	D	SCHWAEBISCH GMUEND 009E48 48N50	AL RC GMX	0000-2400	2K00A2A	X	20.0 dBW	ND	009E48 48N50	28 km	510.5000 kHz	1252

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50447	D	SEMBACH 008E03 49N34	AL RC SEX	0000-2400	2K00A2A	Y 17.0 dBW	ND	008E03 49N34 47 km	428.0000 kHz	1245
50455	D	ST MICHAELISDONN 009E09 53N59	AL RC	0000-2400	2K00A2A	X 20.0 dBW	ND	009E09 53N59 47 km		
50446	D	STEUTZEN 012E03 49N40	AL RC AAE	0000-2400	2K00A2A	X 20.0 dBW	ND	012E03 49N40 47 km	434.0000 kHz	1245
50438	D	TANGO 009E16 48N37	AL RC TGO	0000-2400	2K00A2A	X 20.0 dBW	ND	009E16 48N37 93 km	422.0000 kHz	1239
50458	D	WEILER 009E57 49N01	AL RC DHW	0000-2400	2K00A2A	X 20.0 dBW	ND	009E57 49N01 56 km	526.0000 kHz	1253
50434	D	WUNSTORF 009E27 52N28	AL RC WUN	0000-2400	2K00A2A	Y 20.0 dBW	ND	009E27 52N28 47 km	419.0000 kHz	1236

DDR

République démocratique allemande
German Democratic Republic
República Democrática Alemana

50023	DDR	BERLIN SCHOENEFELD 013E33 52N23	AL RC S	0000-2400	2K10A2A	Y 17.0 dBW	ND	013E33 52N23 20 km	430.0000 kHz	321
50024	DDR	BERLIN SCHOENEFELD 013E28 52N22	AL RC M	0000-2400	2K10A2A	Y 17.0 dBW	ND	013E28 52N22 20 km	430.0000 kHz	322
50020	DDR	HENNI CKENDORF 013E06 52N10	AL RC HKF	0000-2400	2K10A2A	Y 20.0 dBW	ND	013E06 52N10 50 km	420.0000 kHz	
50021	DDR	LEIPZIG 012E16 51N25	AL RC M	0000-2400	2K10A2A	Y 17.0 dBW	ND	012E16 51N25 20 km	425.0000 kHz	319
50022	DDR	LEIPZIG 012E12 51N25	AL RC S	0000-2400	2K10A2A	Y 17.0 dBW	ND	012E12 51N25 20 km	425.0000 kHz	320
50026	DDR	LEIPZIG 012E07 51N26	AL RC SK	0000-2400	2K10A2A	Y 17.0 dBW	ND	012E07 51N26 30 km	446.0000 kHz	
50025	DDR	REINSDORF 012E36 51N55	AL RC RSF	0000-2400	2K10A2A	Y 20.0 dBW	ND	012E36 51N55 50 km	436.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		DNK					**Danemark Denmark Dinamarca**				
50226	DNK	HERNING	009E08 56N10	AL RC	0000-2400	800HA2A	Y 17.0 dBW	ND	009W08 56N10 50 km		42
50227	DNK	KARUP	008E59 56N18	AL RC	0000-2400	800HA2A	Y 17.0 dBW	ND	008E59 56N18 50 km		42
50228	DNK	KASTRUP	012E41 55N36	AL RC	0000-2400	800HA2A	Y 17.0 dBW	ND	012E41 55N36 50 km		42
50229	DNK	KIRSTINESMINDE	010E10 56N12	AL RC	0000-2400	800HA2A	Y 17.0 dBW	ND	010E10 56N12 50 km		42
50230	DNK	ODENSE	010E13 55N26	AL RC	0000-2400	800HA2A	Y 17.0 dBW	ND	010E13 55N26 50 km		42
50231	DNK	ROSKILDE	012E11 55N38	AL RC	0000-2400	800HA2A	Y 17.0 dBW	ND	012E11 55N38 50 km		42
50232	DNK	TIRSTRUP	010E29 56N19	AL RC	0000-2400	800HA2A	Y 17.0 dBW	ND	010E29 56N19 50 km		42
		E					**Espagne Spain España**				
50254	E	ALCOBENDAS	003W41 40N35	AL RC ACD	0000-2400	2K10A2A	Y 17.8 dBW	ND	003W41 40N35 56 km	259.0000 kHz	
50253	E	ALICANTE	000W33 38N18	AL RC ALT	0000-2400	2K10A2A	Y 24.8 dBW	ND	000W33 38N17 93 km	280.0000 kHz	
50252	E	BAILEN	003W38 38N09	AL RC BLN	0000-2400	2K10A2A	Y 24.0 dBW	ND	003W38 38N09 101 km	263.0000 kHz	
50249	E	FUERTEVENTURA	013W52 28N27	AL RC FT	0000-2400	2K10A2A	Y 23.0 dBW	ND	013W52 28N27 111 km	258.0000 kHz	
50248	E	JEREZ	006W01 36N50	AL RC JRZ	0000-2400	2K10A2A	Y 17.0 dBW	ND	006W01 36N50 93 km	274.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50247	E	LAS PALMAS 015W24 27N58	AL RC GD	0000-2400	2K10A2A	Y	31.8 dBW	ND	015W24 27N58	185 km	278.0000 kHz	
50246	E	MADRID/GETAFE 003W51 40N12	AL RC GE	0000-2400	2K10A2A	Y	17.8 dBW	ND	003W51 40N12	56 km	278.0000 kHz	
50245	E	NAVAS DEL REY 004W15 40N22	AL RC NVS	0000-2400	2K10A2A	Y	17.8 dBW	ND	004W15 40N22	56 km	273.0000 kHz	
50251	E	PLATFORM CASABLANCA 001E21 40N43	AL RC TG	0000-2400	2K10A2A	Y	13.0 dBW	ND	001E21 40N43	46 km	415.0000 kHz	
50250	E	PLATFORM CASTELLON 001E19 40N41	AL RC DT	0000-2400	2K10A2A	Y	13.0 dBW	ND	001E19 40N41	46 km	522.0000 kHz	
50244	E	POLLENSA 003E06 39N55	AL RC POS	0000-2400	2K10A2A	Y	24.0 dBW	ND	003E06 39N55	74 km	280.0000 kHz	
50501	E	PROTECCION CIVIL 003W42 40N25	AL RC PC	0000-2400	2K10A2A	Y	14.0 dBW	ND	003W42 40N25	200 km	517.0000 kHz	94
50243	E	REUS 001E09 41N09	AL RC RES	0000-2400	2K10A2A	Y	24.8 dBW	ND	001W09 41N09	93 km	272.0000 kHz	
50242	E	SALAMANCA 005W38 40N56	AL RC SCA	0000-2400	2K10A2A	Y	20.0 dBW	ND	005W38 40N56	74 km	256.0000 kHz	
50241	E	SANTANDER 003W51 43N26	AL RC SA	0000-2400	2K10A2A	Y	17.0 dBW	ND	003W51 43N26	93 km	280.0000 kHz	
50240	E	SANTIAGO 008W26 42N54	AL RC STG	0000-2400	2K10A2A	Y	23.0 dBW	ND	008W26 42N54	74 km	272.0000 kHz	
50237	E	SEVILLA 005W48 37N25	AL RC SPP	0000-2400	2K10A2A	Y	20.0 dBW	ND	005W48 37N25	74 km	260.0000 kHz	
50239	E	SEVILLA 006W19 36N39	AL RC AOG	0000-2400	2K10A2A	Y	20.0 dBW	ND	006W19 36N39	74 km	265.0000 kHz	
50238	E	SEVILLA/MORON 005W34 37N18	AL RC MNF	0000-2400	2K10A2A	Y	20.0 dBW	ND	005W34 37N18	74 km	280.0000 kHz	
50236	E	SORIA 002W28 41N49	AL RC AS	0000-2400	2K10A2A	Y	17.0 dBW	ND	002W28 41N49	46 km	267.0000 kHz	
50234	E	TENERIFE 016W22 28N29	AL RC FP	0000-2400	2K10A2A	Y	17.0 dBW	ND	016W22 28N29	46 km	243.0000 kHz	
50235	E	TENERIFE NORTE 016W15 28N27	AL RC TX	0000-2400	2K10A2A	Y	17.0 dBW	ND	016W15 28N27	46 km	265.0000 kHz	95
50255	E	TORREJON 003W22 40N24	AL RC TJA	0000-2400	2K04A2A	Y	26.0 dBW	ND	003W22 40N24	150 km	415.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50233	E	VIGO	008W38 41N11	AL RC VGO	0000-2400	2K10A2A	Y	24.8 dBW	ND	008W38 41N11	93 km	258.0000 kHz	

ETH — Ethiopie / Ethiopia / Etiopía

50463	ETH	ASSAB	042E45 13N01	AL RC RADIO	0000-2400	2K80J3E	X	30.0 dBW	ND	042E45 13N01	200 km		1261
50462	ETH	MASSAWA	039E21 15N37	AL RC RADIO	0000-2400	2K80J3E	X	30.0 dBW	ND	039E21 15N37	200 km		1261

F — France / Francia

50368	F	AIX LES MILLES	005E22 43N31	AL RC ALM	0000-2400	100HA1A	X	13.9 dBW	ND	005E22 43N31	46 km	445.0000 kHz	
50354	F	AUBENAS RUOMS	004E22 44N27	AL RC AUB	0000-2400	100HA1AAN	X	14.0 dBW	ND	004E22 44N27	46 km	448.0000 kHz	
50344	F	AUCH	000E37 43N38	AL RC ACH	0000-2400	100HA1AAN	X	14.0 dBW	ND	000E37 43N38	46 km	276.0000 kHz	
50326	F	AUTUN	004E16 46N48	AL RC AU	0000-2400	100HA1AAN	X	14.0 dBW	ND	004E16 46N48	46 km		
50346	F	AUXERRE BASSOU	003E30 47N55	AL RC AX	0000-2400	100HA1AAN	X	14.0 dBW	ND	003E30 47N55	46 km	417.0000 kHz	462
50365	F	BEAUVAIS	002E06 49N27	AL RC	0000-2400	100HA1A	X	16.9 dBW	ND	002E06 49N27	92 km		
50327	F	BELFORT FONTAINE	007E01 47N39	AL RC BLT	0000-2400	100HA1AAN	X	14.0 dBW	ND	007E01 47N39	46 km		
50378	F	BITCHE	007E30 49N02	AL RC BH	0000-2400	100HA1A	X	16.9 dBW	ND	007E30 49N02	92 km	486.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50328	F	BIVILLE 001W49 49N37	AL RC BLL	0000-2400	100HA1AAN	X	14.0 dBW	ND	001W49 49N37	46 km		
50380	F	BORDEAUX SOUGE 000W48 44N51	AL RC SOU	0000-2400	100HA1AAN	X	14.0 dBW	ND	000W48 44N51	46 km	516.0000 kHz	
50348	F	BOURG 005E18 46N12	AL RC BOR	0000-2400	100HA1AAN	X	14.0 dBW	ND	005E18 46N12	46 km	423.0000 kHz	462
50350	F	BROYES LES PESMES 005E32 47N20	AL RC BRP	0000-2400	100HA1AAN	X	17.0 dBW	ND	005E32 47N20	93 km	427.0000 kHz	462
50330	F	CALAIS OYE 002E03 51N00	AL RC MK	0000-2400	100HA1AAN	X	14.0 dBW	ND	002E03 51N00	28 km	275.0000 kHz	
50364	F	CAMBRAI NIERGNIES 003E16 50N08	AL RC CNI	0000-2400	100HA1AAN	X	17.0 dBW	ND	003E16 50N08	93 km	571.0000 kHz	
50329	F	CASTRES 002E17 43N33	AL RC CTM	0000-2400	100HA1AAN	X	14.0 dBW	ND	002E17 43N33	46 km		
50355	F	CHATEAUROUX 001E48 46N56	AL RC CTX	0000-2400	800HA2AAN	Y	17.0 dBW	ND	001E48 46N56	93 km	466.0000 kHz	
50331	F	COETQUIDAN 002W08 47N58	AL RC CTD	0000-2400	100HA1AAN	X	14.0 dBW	ND	002W08 47N58	46 km		
50381	F	CREIL 002E32 49N15	AL RC CRL	0000-2400	100HA1AAN	X	19.0 dBW	ND	002E32 49N15	140 km	518.0000 kHz	
50370	F	DAMBLAIN 005E39 48N05	AL RC DBN	0000-2400	100HA1A	X	16.9 dBW	ND	005E39 48N05	92 km	452.0000 kHz	
50374	F	DIEUZE 006E45 48N47	AL RC DU	0000-2400	100HA1A	X	13.9 dBW	ND	006E45 48N47	46 km	469.0000 kHz	
50332	F	ETAIN 005E40 49N13	AL RC ERV	0000-2400	100HA1AAN	X	14.0 dBW	ND	005E40 49N13	46 km		
50341	F	FLERS 000W36 48N45	AL RC FL	0000-2400	100HA1AAN	X	14.0 dBW	ND	000W36 48N45	46 km	262.0000 kHz	
50333	F	FREJUS 006E44 43N25	AL RC FRU	0000-2400	100HA1AAN	X	17.0 dBW	ND	006E44 43N25	93 km		
50366	F	GRENOBLE 005E52 45N13	AL RC GR	0000-2400	100HA1A	X	13.9 dBW	ND	005E52 45N13	46 km	438.0000 kHz	
50334	F	HAGUENAU 007E49 48N48	AL RC HAG	0000-2400	100HA1AAN	X	14.0 dBW	ND	007E49 48N48	46 km		
50363	F	LA VERDIERE 006E00 43N40	AL RC VRE	0000-2400	100HA1AAN	X	17.0 dBW	ND	006E00 43N40	93 km	544.5000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50335	F	LANVEOC 004W24 48N16	AL RC LAO	0000-2400	100HA1AAN X	17.0 dBW	ND	004W24 48N16 93 km		
50379	F	LES MUREAUX 001E57 49N00	AL RC LMX	0000-2400	100HA1A X	13.9 dBW	ND	001E57 49N00 46 km	510.5000 kHz	
50373	F	LURE 006E32 47N42	AL RC LRE	0000-2400	100HA1A X	16.9 dBW	ND	006E32 47N42 96 km	465.0000 kHz	
50352	F	MELUN VILLAROCHE 002E38 48N37	AL RC MVI	0000-2400	100HA1AAN X	14.0 dBW	ND	002E38 48N37 46 km	430.0000 kHz	
50347	F	MIRECOURT 006E04 48N19	AL RC MI	0000-2400	100HA1AAN X	17.0 dBW	ND	006E04 48N19 93 km	419.0000 kHz	462
50367	F	MOURMELON 004E23 49N07	AL RC MML	0000-2400	100HA1A X	13.9 dBW	ND	004E23 49N07 46 km	440.0000 kHz	
50356	F	PARIS ORLY CHEVANNES 002E28 48N33	AL RC PSY	0000-2400	800HA2AAN Y	14.0 dBW	ND	002E28 48N33 46 km	471.0000 kHz	
50349	F	PHALSBOURG 007E12 48N46	AL RC PHG	0000-2400	100HA1AAN X	14.0 dBW	ND	007E12 48N46 46 km	424.0000 kHz	462
50338	F	ROCROI 004E25 49N55	AL RC RRZ	0000-2400	100HA1AAN X	17.0 dBW	ND	004E25 49N55 93 km	279.0000 kHz	
50362	F	ROYAN 000W58 45N38	AL RC RY	0000-2400	100HA1AAN X	14.0 dBW	ND	000W58 45N38 46 km	524.5000 kHz	
50336	F	S FLOUR 003E00 45N05	AL RC FLO	0000-2400	100HA1AAN X	14.0 dBW	ND	003E00 45N05 46 km		
50337	F	S MANDRIER 005E57 43N04	AL RC SMD	0000-2400	100HA1AAN X	17.0 dBW	ND	005E57 43N04 93 km		
50351	F	S SIMON 003E12 49N45	AL RC SON	0000-2400	100HA1AAN X	17.0 dBW	ND	003E12 49N45 93 km	427.0000 kHz	462
50377	F	S SYMPHORIEN 004E56 45N39	AL RC SC	0000-2400	100HA1A X	13.9 dBW	ND	004E56 45N39 46 km	478.0000 kHz	
50357	F	S YAN BRIANT 004E07 46N18	AL RC SN	0000-2400	100HA1AAN X	14.0 dBW	ND	004E07 46N18 46 km	510.1000 kHz	
50372	F	SISSONNE 003E58 49N39	AL RC SIN	0000-2400	100HA1A X	13.9 dBW	ND	003E58 49N39 46 km	463.0000 kHz	
50339	F	SISTERON 005E56 44N17	AL RC STN	0000-2400	100HA1AAN X	14.0 dBW	ND	005E56 44N17 46 km		
50369	F	SUIPPES 004E38 49N13	AL RC SU	0000-2400	100HA1A X	13.9 dBW	ND	004E38 49N13 46 km	446.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50361	F	TARBES OSSUN 000W01 43N12	AL RC HL	0000-2400	100HA1AAN	X	14.0 dBW	ND	000W01 43N12	46 km	524.0000 kHz	
50343	F	TARBES RICAUD 000E17 43N09	AL RC UN	0000-2400	100HA1AAN	X	14.0 dBW	ND	000W17 43N09	46 km	268.0000 kHz	
50376	F	TOUL ROSIERES 005E53 48N41	AL RC TUL	0000-2400	100HA1A	X	18.7 dBW	ND	005E53 48N41	139 km	477.0000 kHz	
50345	F	TOULOUSE LABASTIDE 001E41 43N29	AL RC TOE	0000-2400	100HA1AAN	X	17.0 dBW	ND	001E41 43N29	93 km	415.0000 kHz	462
50358	F	TOULOUSE MERVILLA 001E29 43N30	AL RC TS	0000-2400	800HA2AAN	Y	14.0 dBW	ND	001E29 43N30	46 km	518.0000 kHz	
50360	F	USSEL THALAMY 002E26 45N31	AL RC ULT	0000-2400	100HA1AAN	X	14.0 dBW	ND	002E26 45N31	46 km	523.0000 kHz	
50375	F	USSEL THALAMY 002E25 45N33	AL RC USL	0000-2400	100HA1A	X	16.9 dBW	ND	002E25 45N33	92 km	475.0000 kHz	
50353	F	VALDAHON 006E20 47N10	AL RC VD	0000-2400	100HA1AAN	X	14.0 dBW	ND	006E20 47N10	46 km	433.0000 kHz	462
50371	F	VALDAHON 006E20 47N13	AL RC VH	0000-2400	100HA1A	X	13.9 dBW	ND	006E20 47N13	46 km	459.0000 kHz	
50342	F	VALENCE 004E58 44N55	AL RC VB	0000-2400	100HA1AAN	X	17.0 dBW	ND	004E58 44N55	93 km	262.0000 kHz	
50340	F	VILLEFRANCHE TARARE 004E38 45N55	AL RC VIT	0000-2400	100HA1AAN	X	14.0 dBW	ND	004E38 45N55	46 km		
50359	F	VILLENEUVE SUR LOT 000E46 44N24	AL RC VI	0000-2400	100HA1AAN	X	14.0 dBW	ND	000E46 44N24	46 km	521.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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FNL

Finlande
Finland
Finlandia

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50077	FNL	AAVAHELUKKA	023E59 67N36	AL RC AAV	0000-2400	100HA1A	X	36.0 dBW	ND	023E59 67N36	90 km	400 kHz	
50079	FNL	ALAVUS	023E35 62N33	AL RC ALA	0000-2400	100HA1A	X	36.0 dBW	ND	023E35 62N33	90 km	400 kHz	
50080	FNL	EURA	022E12 61N07	AL RC EUR	0000-2400	100HA1A	X	36.0 dBW	ND	022E12 61N07	90 km	400 kHz	
50081	FNL	FORSSA	023E39 60N48	AL RC FOR	0000-2400	100HA1A	X	36.0 dBW	ND	023E39 60N48	90 km	400 kHz	
50082	FNL	HAAPAVESI	025E30 64N05	AL RC HAA	0000-2400	100HA1A	X	36.0 dBW	ND	025E30 64N05	90 km	400 kHz	
50083	FNL	HAILUOTO	024E42 64N58	AL RC HAI	0000-2400	100HA1A	X	36.0 dBW	ND	024E42 64N58	90 km	400 kHz	
50059	FNL	HALLI	024E39 61N51	AL RC HAL	0000-2400	100HA1A	X	36.0 dBW	ND	024E39 61N51	90 km	312.0000 kHz 400 kHz	
50060	FNL	HALLI	024E44 61N51	AL RC G	0000-2400	800HA2A	Y	23.0 dBW	ND	024E44 61N51	20 km	288.0000 kHz 400 kHz	
50084	FNL	HANKO	023E05 59N51	AL RC HAN	0000-2400	100HA1A	X	36.0 dBW	ND	023E05 59N51	90 km	400 kHz	
50061	FNL	HELSINKI-VANTAA	024E58 60N20	AL RC Z	0000-2400	800HA2A	Y	23.0 dBW	ND	024E58 60N20	20 km	291.0000 kHz 400 kHz	
50085	FNL	IISALMI	027E08 63N38	AL RC IIS	0000-2400	100HA1A	X	36.0 dBW	ND	027E08 63N38	90 km	400 kHz	
50086	FNL	JAKALAPAA	025E45 68N43	AL RC JKL	0000-2400	100HA1A	X	36.0 dBW	ND	025E45 68N43	90 km	400 kHz	
50062	FNL	JOENSUU	029E35 62N40	AL RC J	0000-2400	800HA2A	Y	23.0 dBW	ND	029E35 62N40	20 km	305.0000 kHz 400 kHz	
50063	FNL	JYVASKYLA	025E48 62N21	AL RC JYV	0000-2400	100HA1A	X	36.0 dBW	ND	025E48 62N21	90 km	296.0000 kHz 400 kHz	
50064	FNL	JYVASKYLA	025E43 62N23	AL RC L	0000-2400	800HA2A	Y	23.0 dBW	ND	025E43 62N23	20 km	306.0000 kHz 400 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50065	FNL	KAJAANI	027E39 64N17	AL RC G	0000-2400	800HA2A	Y	23.0 dBW	ND	027E39 64N17	20 km	315.0000 kHz 400 kHz	
50066	FNL	KAUHAVA	023E03 63N06	AL RC U	0000-2400	800HA2A	Y	23.0 dBW	ND	023E03 63N06	20 km	310.0000 kHz 400 kHz	
50067	FNL	KEMI	024E35 65N46	AL RC G	0000-2400	800HA2A	Y	23.0 dBW	ND	024E35 65N46	20 km	308.0000 kHz 400 kHz	
50087	FNL	KEMIJARVI	027E10 66N43	AL RC KEI	0000-2400	100HA1A	X	36.0 dBW	ND	027E10 66N43	90 km	400 kHz	
50068	FNL	KITTILA	024E54 67N37	AL RC KIT	0000-2400	100HA1A	X	36.0 dBW	ND	024E54 67N37	90 km	303.0000 kHz 400 kHz	
50088	FNL	KUHMO	029E27 64N07	AL RC KUH	0000-2400	100HA1A	X	36.0 dBW	ND	029E27 64N07	90 km	400 kHz	
50089	FNL	KUMLINGE	020E48 60N15	AL RC KUM	0000-2400	100HA1A	X	36.0 dBW	ND	020E48 60N15	90 km	400 kHz	
50069	FNL	KUOPIO	027E51 62N57	AL RC KUR	0000-2400	100HA1A	X	36.0 dBW	ND	027E51 62N57	90 km	310.0000 kHz 400 kHz	
50070	FNL	MARIEHAMN	019E55 60N08	AL RC S	0000-2400	800HA2A	Y	23.0 dBW	ND	019E55 60N08	20 km	305.0000 kHz 400 kHz	
50090	FNL	MENKIJARVI	023E31 62N57	AL RC MEN	0000-2400	100HA1A	X	36.0 dBW	ND	023E31 62N57	90 km	400 kHz	
50091	FNL	NUMMELA	024E18 60N20	AL RC NUM	0000-2400	100HA1A	X	36.0 dBW	ND	024E18 60N20	90 km	400 kHz	
50092	FNL	ORITKARI	025E28 64N59	AL RC ORI	0000-2400	100HA1A	X	36.0 dBW	ND	025E28 64N59	90 km	400 kHz	
50071	FNL	OULU	025E32 64N53	AL RC TP	0000-2400	800HA2A	Y	23.0 dBW	ND	025E32 64N53	50 km	290.0000 kHz 400 kHz	
50072	FNL	OULU	025E24 64N55	AL RC C	0000-2400	800HA2A	Y	23.0 dBW	ND	025E24 64N55	20 km	310.0000 kHz 400 kHz	
50093	FNL	PATTIJOKI	024E42 64N41	AL RC PAT	0000-2400	100HA1A	X	36.0 dBW	ND	024E42 64N41	90 km	400 kHz	
50094	FNL	PELLO	023E58 66N46	AL RC PEL	0000-2400	100HA1A	X	36.0 dBW	ND	023E58 66N46	90 km	400 kHz	
50095	FNL	PIIKAJARVI	022E12 61N15	AL RC PII	0000-2400	100HA1A	X	36.0 dBW	ND	022E12 61N15	90 km	400 kHz	
50096	FNL	RANTASALMI	028E22 62N04	AL RC RAN	0000-2400	100HA1A	X	36.0 dBW	ND	028E22 62N04	90 km	400 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50097	FNL	RAUTAVAARA 028E08 63N25	AL RC RAU	0000-2400	100HA1A	X 36.0 dBW	ND	028E08 63N25 90 km	400 kHz	
50098	FNL	RAYSKALA 024E07 60N45	AL RC RSK	0000-2400	100HA1A	X 36.0 dBW	ND	024E07 60N45 90 km	400 kHz	
50073	FNL	ROVANIEMI 025E58 66N38	AL RC TOR	0000-2400	100HA1A	X 36.0 dBW	ND	025E58 66N38 90 km	266.0000 kHz 400 kHz	
50074	FNL	ROVANIEMI 025E52 66N35	AL RC R	0000-2400	800HA2A	Y 23.0 dBW	ND	025E52 66N35 20 km	306.0000 kHz 400 kHz	
50099	FNL	SELANPAA 026E48 61N04	AL RC SEL	0000-2400	100HA1A	X 36.0 dBW	ND	026E48 61N04 90 km	400 kHz	
50100	FNL	SODANKYLA 026E37 67N24	AL RC SOD	0000-2400	100HA1A	X 36.0 dBW	ND	026E37 67N24 90 km	400 kHz	
50101	FNL	SUOMUSSALMI 028E43 64N49	AL RC SUO	0000-2400	100HA1A	X 36.0 dBW	ND	028E43 64N49 90 km	400 kHz	
50075	FNL	TAMPERE-PIRKKALA 023E27 61N23	AL RC VS	0000-2400	100HA1A	X 36.0 dBW	ND	023E27 61N23 90 km	301.0000 kHz 400 kHz	
50076	FNL	TAMPERE-PIRKKALA 023E40 61N26	AL RC A	0000-2400	800HA2A	Y 23.0 dBW	ND	023E40 61N26 50 km	308.0000 kHz 400 kHz	
50078	FNL	TAMPERE-PIRKKALA 023E33 61N24	AL RC D	0000-2400	800HA2A	Y 23.0 dBW	ND	023E33 61N24 50 km	286.0000 kHz 400 kHz	
50102	FNL	TERVOLA 024E51 66N06	AL RC TER	0000-2400	100HA1A	X 36.0 dBW	ND	024E51 66N06 90 km	400 kHz	
50103	FNL	VAALA 026E46 64N30	AL RC VAA	0000-2400	100HA1A	X 36.0 dBW	ND	026E46 64N30 90 km	400 kHz	
50104	FNL	VUOTSO 027E07 68N05	AL RC VUO	0000-2400	100HA1A	X 36.0 dBW	ND	027E07 68N05 90 km	400 kHz	
50105	FNL	WREDEBY 026E45 60N40	AL RC WRE	0000-2400	100HA1A	X 36.0 dBW	ND	026E45 60N40 90 km	400 kHz	
50106	FNL	YLIVIESKA 024E44 64N03	AL RC YLV	0000-2400	100HA1A	X 36.0 dBW	ND	024E44 64N03 90 km	400 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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Royaume-Uni de Grande-Bretagne et d'Irlande du Nord
United Kingdom of Great Britain and Northern Ireland
Reino Unido de Gran Bretana e Irlanda del Norte

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50390	G	BARTON	002W27 53N28	AL RC BTN	0000-2400	850HA2A	Y	5.0 dBW	ND	002W27 53N28	47 km	669.5000 kHz	1135
50391	G	BELFAST HARBOUR	005W53 54N37	AL RC HB	0000-2400	850HA2A	Y	0.0 dBW	ND	005W53 54N37	28 km	275.0000 kHz	1136
50392	G	BEMBRIDGE	001W07 50N41	AL RC IW	0000-2400	850HA2A	Y	0.0 dBW	ND	001W07 50N41	28 km	276.5000 kHz	1137
50393	G	BLACKPOOL	002W59 53N46	AL RC BPL	0000-2400	850HA2A	Y	0.0 dBW	ND	002W59 53N46	28 km	278.0000 kHz	1138
50394	G	BOSCOMBE DOWN	001W46 51N11	AL RC BD	0000-2400	850HA2A	Y	5.0 dBW	ND	001W46 51N11	47 km	274.0000 kHz	1139
50395	G	BOURNEMOUTH	001W50 50N47	AL RC BNM	0000-2400	850HA2A	Y	12.0 dBW	ND	001W50 50N47	93 km		1140
50396	G	BRAWDY	005W07 51N53	AL RC BY	0000-2400	850HA2A	Y	5.0 dBW	ND	005W07 51N53	47 km	414.5000 kHz	1141
50397	G	CHILTERN	000W31 51N37	AL RC CHT	0000-2400	850HA2A	Y	5.0 dBW	ND	000W31 51N37	47 km	279.0000 kHz	1142
50398	G	CRANFIELD	000W33 52N08	AL RC CFD	0000-2400	850HA2A	Y	0.0 dBW	ND	000W33 52N08	28 km	850.0000 kHz	1143
50399	G	FINNINGLEY	001W00 53N29	AL RC FY	0000-2400	850HA2A	Y	5.0 dBW	ND	001W00 53N29	47 km	408.5000 kHz	1144
50400	G	HENTON	000W47 51N46	AL RC HEN	0000-2400	850HA2A	Y	7.0 dBW	ND	000W47 51N46	56 km	269.0000 kHz	1145
50401	G	HETHEL	001E11 52N34	AL RC HTL	0000-2400	850HA2A	Y	-3.0 dBW	ND	001E11 52N34	19 km	277.0000 kHz	1146
50402	G	LEE ON SOLENT	001W12 50N49	AL RC LS	0000-2400	850HA2A	Y	-3.0 dBW	ND	001W12 50N49	19 km	407.0000 kHz	1147
50403	G	LEUCHARS	002W52 56N22	AL RC LU	0000-2400	850HA2A	Y	7.0 dBW	ND	002W52 56N22	56 km	255.5000 kHz	1148
50404	G	LONGSIDE	001W52 57N31	AL RC LNS	0000-2400	850HA2A	Y	3.0 dBW	ND	001W52 57N31	37 km	260.0000 kHz	1149

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50405	G	MILDENHALL 000E29 52N22	AL RC MI	0000-2400	850HA2A	Y	3.0 dBW	ND	000E29 52N22	37 km	274.0000 kHz	1150
50406	G	NEWCASTLE 001W48 55N00	AL RC WZ	0000-2400	850HA2A	Y	5.0 dBW	ND	001W48 55N00	47 km	277.5000 kHz	1151
50407	G	NOTTINGHAM 001W05 52N55	AL RC NOT	0000-2400	850HA2A	Y	-3.0 dBW	ND	001W05 52N55	19 km	266.5000 kHz	1152
50419	G	OIL PLAT MCP 01 000W17 58N50	AL RC MP	0000-2400	850HA2A	Y	5.0 dBW	ND	000W17 58N50	56 km	269.0000 kHz	1164
50415	G	OIL PLT AMOCO 49/27A 002E19 53N02	AL RC CP	0000-2400	850HA2A	Y	1.0 dBW	ND	002E19 53N02	37 km	553.5000 kHz	1160
50416	G	OIL PLT AMOCO 49/27D 002E20 53N01	AL RC UB	0000-2400	850HA2A	Y	1.0 dBW	ND	002E20 53N01	37 km	553.5000 kHz	1161
50417	G	OIL PLT AMOCO 49/27F 002E19 53N02	AL RC TSF	0000-2400	850HA2A	Y	1.0 dBW	ND	002E19 53N02	37 km	553.5000 kHz	1162
50418	G	OIL PLT INDE J 002E38 53N22	AL RC UJ	0000-2400	850HA2A	Y	1.0 dBW	ND	002E38 53N22	37 km	579.5000 kHz	1163
50408	G	PRESTWICK 004W41 55N33	AL RC PW	0000-2400	850HA2A	Y	0.0 dBW	ND	004W41 55N33	28 km	279.0000 kHz	1153
50420	G	PUMP STATION 1 001E37 55N54	AL RC VT	0000-2400	850HA2A	Y	1.0 dBW	ND	001E37 55N54	37 km	268.0000 kHz	1165
50421	G	PUMP STATION 2 000E12 55N17	AL RC VI	0000-2400	850HA2A	Y	1.0 dBW	ND	000E12 55N17	37 km	268.0000 kHz	1166
50409	G	SAINT ABBS 002W12 55N56	AL RC SAB	0000-2400	850HA2A	Y	10.0 dBW	ND	002W12 55N56	75 km	284.0000 kHz	1154
50410	G	SHOBDON 002W53 52N14	AL RC SH	0000-2400	850HA2A	Y	-3.0 dBW	ND	002W53 52N14	19 km	275.0000 kHz	1155
50411	G	UNST 000W51 60N45	AL RC UT	0000-2400	850HA2A	Y	3.0 dBW	ND	000W51 60N45	37 km	258.0000 kHz	1156
50412	G	WALNEY ISLAND 003W16 54N08	AL RC WL	0000-2400	850HA2A	Y	0.0 dBW	ND	003W16 54N08	28 km	282.5000 kHz	1157
50413	G	WESTCOTT 000W58 51N51	AL RC WCO	0000-2400	850HA2A	Y	7.0 dBW	ND	000W58 51N51	56 km	734.0000 kHz	1158
50414	G	WITTERING 000W28 52N37	AL RC WJ	0000-2400	850HA2A	Y	7.0 dBW	ND	000W28 52N37	56 km	406.0000 kHz	1159

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		GRC					**Grèce / Greece / Grecia**					
50276	GRC	AGRINION	021E21 38N36	AL RC AGR	0000-2400	850HA2A	X 23.0 dBW	ND	021E21 38N36	150 km	278.0000 kHz	1218
50275	GRC	ATHINAI	023E46 37N49	AL RC HK	0000-2400	850HA2A	X 19.0 dBW	ND	023E46 37N49	46 km	275.0000 kHz	1217
50274	GRC	ATHINAI/ELEFSIS	023E33 38N04	AL RC ELF	0000-2400	850HA2A	X 20.0 dBW	ND	023E33 38N04	46 km	252.0000 kHz	1216
50273	GRC	IRAKLION	025E11 35N20	AL RC RKL	0000-2400	850HA2A	X 25.0 dBW	ND	025E11 35N20	280 km	259.0000 kHz	1215
50272	GRC	KERKIRA	019E55 39N35	AL RC CF	0000-2400	850HA2A	X 20.0 dBW	ND	019E55 39N35	46 km	230.0000 kHz	1214
50271	GRC	LIMNOS	024E15 39N55	AL RC LMN	0000-2400	850HA2A	X 25.0 dBW	ND	024E15 39N55	280 km	270.0000 kHz	1213
50270	GRC	STEFANOVIKION	022E45 39N28	AL RC STF	0000-2400	850HA2A	X 20.0 dBW	ND	022E45 39N28	50 km	522.0000 kHz	1212
		HNG					**Hongroise (République populaire) / Hungarian People's Republic / Húngara (República Popular)**					
50004	HNG	BEKESCSABA	021E08 46N41	AL RC R	0500-1900	900HA2AAN	Y 17.0 dBW	ND	021E08 46N41	50 km	416.0000 kHz	
50016	HNG	BUDAORS	018E59 47N27	AL RC S	0000-2400	2K10A2AAN	Y 17.0 dBW	ND	018E59 47N27	40 km	473.0000 kHz	
50019	HNG	BUDAORS	018E59 47N27	AL RC BS	0000-2400	2K10A2AAN	Y 17.0 dBW	ND	018E59 47N27	40 km		
50005	HNG	BUDAPEST FERIHEGY	019E18 47N24	AL RC HM	0000-2400	2K10A2AAN	Y 17.0 dBW	ND	019E18 47N24	40 km	420.0000 kHz	
50008	HNG	BUGAC	019E41 46N41	AL RC BUG	0000-2400	2K10A2AAN	Y 20.0 dBW	ND	019E41 46N41	100 km	430.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50010	HNG	JASZBERENY 019E54 47N30	AL RC JBR	0000-2400	2K10A2AAN	Y	20.0 dBW	ND	019E54 47N30	50 km	435.0000 kHz	
50011	HNG	KISKUNFELEGYHAZA 019E53 46N43	AL RC KD	0500-1900	900HA2AAN	Y	20.0 dBW	ND	019E53 46N43	100 km	440.0000 kHz	
50013	HNG	NAGYKANIZSA 016E58 46N26	AL RC NK	0500-1900	900HA2AAN	Y	17.0 dBW	ND	016E58 46N26	50 km	456.0000 kHz	
50018	HNG	NAGYKORPAD 017E28 46N25	AL RC NP	0500-1900	900HA2AAN	Y	20.0 dBW	ND	017E28 46N25	100 km	490.0000 kHz	
50009	HNG	NYIREGYHAZA 021E42 48N00	AL RC P	0000-2400	2K10A2AAN	Y	14.0 dBW	ND	021E42 48N00	25 km	433.0000 kHz	
50007	HNG	PECS 018E15 45N58	AL RC PC	0600-2000	900HA2AAN	Y	20.0 dBW	ND	018E15 45N58	100 km	428.0000 kHz	
50017	HNG	PUSZTAEGRES 018E31 46N52	AL RC PS	0500-1900	900HA2AAN	Y	20.0 dBW	ND	018E31 46N52	100 km	484.0000 kHz	
50006	HNG	SZOLNOK 020E11 47N08	AL RC Z	0000-2400	900HA2AAN	Y	17.0 dBW	ND	020E11 47N08	50 km	422.0000 kHz	
50014	HNG	SZOLNOK 020E11 47N08	AL RC YZ	0000-2400	900HA2AAN	Y	20.0 dBW	ND	020E11 47N08	100 km	462.0000 kHz	
50015	HNG	SZOMBATHELY 016E37 47N16	AL RC OR	0500-1900	900HA2AAN	Y	20.0 dBW	ND	016E37 47N16	100 km	465.0000 kHz	
50012	HNG	ZALAEGERSZEG 016E52 46N52	AL RC ZE	0500-1900	900HA2AAN	Y	20.0 dBW	ND	016E52 46N52	100 km	445.0000 kHz	

HOL

Pays-Bas (Royaume des)
Netherlands (Kingdom of the)
Países Bajos (Reino de los)

50117	HOL	EINDHOVEN 005E27 51N27	AL RC	0000-2400	1K20A2AAN	Y	13.0 dBW	ND	005E27 51N27	30 km		1192
50116	HOL	OILRIG 004E20 53N25	AL RC	0000-2400	1K20A2AAN	Y	13.0 dBW	ND	004E20 53N25	50 km		1191
50118	HOL	OILRIG 004E20 53N25	AL RC	0000-2400	1K20A2AAN	Y	13.0 dBW	ND	004E20 53N25	50 km		1193
50119	HOL	OILRIG 004E20 53N25	AL RC	0000-2400	1K20A2AAN	Y	13.0 dBW	ND	004E20 53N25	50 km		1194

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50120	HOL	THORN	005E50 51N11	AL RC THN	0000-2400	1K20A2AAN	Y	17.0 dBW	ND	005E50 51N11	50 km	514.0000 kHz	

HOL

Pays-Bas (Royaume des)
Netherlands (Kingdom of the)
Países Bajos (Reino de los)

50107	I	ALBENGA	008E13 44N03	AL RC ABN	0000-2400	2K04A2A	Y	23.9 dBW	ND	008E13 44N03	90 km	268.0000 kHz	
50108	I	FERRARA	011E37 44N49	AL RC FER	0000-2400	2K04A2A	Y	23.9 dBW	ND	011E37 44N49	90 km	285.0000 kHz	
50109	I	FORLI	011E55 44N15	AL RC FOR	0000-2400	2K04A2A	Y	20.0 dBW	ND	011E55 44N15	45 km	345.0000 kHz	
50110	I	PERETOLA	011E12 43N48	AL RC PRT	0000-2400	2K04A2A	Y	23.9 dBW	ND	011E12 43N48	90 km	261.0000 kHz	
50111	I	PIACENZA	009E43 44N55	AL RC PIA	0000-2400	2K04A2A	Y	24.0 dBW	ND	009E43 44N55	90 km		
50112	I	ROMA FIUMICINO	012E21 41N50	AL RC FE	0000-2400	2K04A2A	Y	20.0 dBW	ND	012E21 41N50	45 km		
50113	I	RONCHI LEGIONARI	013E22 45N50	AL RC RON	0000-2400	2K04A2A	Y	20.0 dBW	ND	013E22 45N50	45 km	354.0000 kHz	
50114	I	SORRENTO	014E20 40N35	AL RC SOR	0000-2400	2K04A2A	Y	23.9 dBW	ND	014E20 40N35	180 km	390.0000 kHz	
50115	I	VILLAFRANCA	010E47 45N19	AL RC VIL	0000-2400	2K04A2A	Y	24.0 dBW	ND	010E47 45N19	90 km	257.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IRL

Irlande
Ireland
Irlanda

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50261	IRL	ABBEYSHRULE	007W39 53N35	AL RC ABS	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	007W39 53N35	45 km		
50259	IRL	BALDONNEL	006W27 53N18	AL RC BLE	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	006W27 53N18	45 km		
50257	IRL	CORK	008W30 51N50	AL RC COK	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	008W30 51N50	45 km		
50260	IRL	DUNDALK	006W25 54N00	AL RC DLK	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	006W25 54N00	45 km		
50258	IRL	GALWAY	009W04 53N15	AL RC GLY	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	009W04 53N15	45 km		
50262	IRL	KNOCK	008W27 53N57	AL RC KNK	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	008W27 53N57	45 km		
50470	IRL	MOB 1	011W00 53N00	AL RC	0000-2400	2K14A2AAN	Y	20.0 dBW	ND	011W00 53N00	90 km		116
50471	IRL	MOB 2	011W00 53N00	AL RC	0000-2400	2K14A2AAN	Y	20.0 dBW	ND	011W00 53N00	90 km		116
50464	IRL	PLATFORM 1	011W00 53N00	AL RC EH	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	011W00 53N00	45 km		117
50465	IRL	PLATFORM 2	011W00 53N00	AL RC EG	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	011W00 53N00	45 km		117
50466	IRL	PLATFORM 3	011W00 53N00	AL RC UV	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	011W00 53N00	45 km		117
50467	IRL	PLATFORM 4	011W00 53N00	AL RC WU	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	011W00 53N00	45 km		117
50468	IRL	PLATFORM 5	011W00 53N00	AL RC PN	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	011W00 53N00	45 km		117
50469	IRL	PLATFORM 6	011W00 53N00	AL RC UG	0000-2400	2K14A2AAN	Y	14.0 dBW	ND	011W00 53N00	45 km		117

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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MAU

Maurice
Mauritius
Mauricio

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50561	MAU	AGALEGA N ISLAND 056E36 10S22	AL RC AGG	0400-1100	1K02A2A	Y 23.0 dBW	ND	056E36 10S22 450 km	399.0000 kHz	
50474	MAU	FLIC EN FLAC 057E22 20S17	AL RC FFL	0000-2400	1K02A2A	Y 14.0 dBW	ND	057E22 20S17 200 km	429.0000 kHz	
50539	MAU	FLIC EN FLAC 057E22 20S17	AL RC FF	0000-2400	1K02A2A	Y 17.8 dBW	ND	057E22 20S17 50 km	258.0000 kHz	
50473	MAU	NOUVELLE FRANCE 057E44 20S21	AL RC NVF	0000-2400	1K02A2A	Y 17.0 dBW	ND	057E44 20S21 200 km	374.0000 kHz	
50538	MAU	PLAISANCE 057E41 20S26	AL RC MS	0000-2400	1K02A2A	Y 30.0 dBW	ND	057E41 20S26 750 km	343.0000 kHz	
50562	MAU	RAPHAEL ISLAND 059E33 16S26	AL RC BDN	0400-1100	1K02A2A	Y 14.0 dBW	ND	059E33 16S26 200 km	360.0000 kHz	

MDG

Madagascar (République démocratique de)
Madagascar (Democratic Republic of)
Madagascar (República Democrática de)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50548	MDG	AMBATOMAINTY 045E40 17S42	AL RC AM	0300-1500	100HA1AAN	X 20.0 dBW	ND	045E40 17S42 90 km		1308
50547	MDG	ANKAVANDRA 045E17 18S48	AL RC AV	0300-1500	100HA1AAN	X 20.0 dBW	ND	045E17 18S48 90 km		1307
50545	MDG	ANTSALOVA 044E37 18S42	AL RC AL	0300-1500	100HA1AAN	X 20.0 dBW	ND	044E37 18S42 90 km		1305
50541	MDG	BEALANANA 048E42 14S33	AL RC BL	0300-1500	100HA1AAN	X 20.0 dBW	ND	048E42 14S33 90 km		1302
50544	MDG	BEFANDRIANA 048E29 15S12	AL RC BF	0300-1500	100HA1AAN	X 20.0 dBW	ND	048E29 15S12 90 km		1304
50540	MDG	BESALAMPY 044E29 16S45	AL RC BP	0300-1500	100HA1AAN	X 20.0 dBW	ND	044E29 16S45 90 km		1301

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50553	MDG	IHOSY 046E10 22S24	AL RC IY	0300-1500	100HA1AAN	X 20.0 dBW	ND	046E10 22S24	90 km		1313
50551	MDG	MALAIMBANDY 045E33 20S21	AL RC ML	0300-1500	100HA1AAN	X 20.0 dBW	ND	045E33 20S21	90 km		1311
50542	MDG	MANANARA 049E46 16S10	AL RC MN	0300-1500	100HA1AAN	X 20.0 dBW	ND	049E46 16S10	90 km		1302
50546	MDG	MANDABE 044E57 21S02	AL RC MB	0300-1500	100HA1AAN	X 20.0 dBW	ND	044E57 21S02	90 km		1306
50543	MDG	MANDRITSARA 048E50 15S50	AL RC MR	0300-1500	100HA1AAN	X 20.0 dBW	ND	048E50 15S50	90 km		1303
50552	MDG	MANJA 044E19 21S25	AL RC MJ	0300-1500	100HA1AAN	X 20.0 dBW	ND	044E19 21S25	90 km		1312
50549	MDG	MORAFENOBE 045E55 17S51	AL RC MF	0300-1500	100HA1AAN	X 20.0 dBW	ND	045E55 17S51	90 km		1309
50550	MDG	TAMBOHORANO 043E58 17S29	AL RC TB	0300-1500	100HA1AAN	X 20.0 dBW	ND	043E56 17S20	90 km		1310

MDR

Madère
Madeira
Madera

50385	MDR POR	PORTO SANTO 016W21 33N04	AL RC	0000-2400	100HA1A	X 20.0 dBW	ND	016W21 33N04	300 km	416.0000 kHz	467

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
MLT						**Malte (République de) Malta (Republic of) Malta (República de)**							
50002	MLT	LUCA	014E32 35N49	AL RC	0000-2400	1K00N0N	X	31.5 dBW	ND	014E32 35N49	300 km	400 kHz	
MRC						**Maroc (Royaume du) Morocco (Kingdom of) Marruecos (Reino de)**							
50277	MRC	AGADIR	009W40 30N25	AL RC AGA	0000-2400	2K10A2A	Y	14.0 dBW	ND	009W40 30N25	100 km	422.0000 kHz	
50476	MRC	BEN SLIMANE	007W07 34N00	AL RC CAE	0000-2400	2K06A2A	Y	14.0 dBW	ND	007W07 34N00	100 km	420.0000 kHz	
50282	MRC	CASABLANCA ANFA	007W41 33N31	AL RC CNY	0000-2400	2K10A2A	Y	17.0 dBW	ND	007W41 33N31	100 km	415.0000 kHz	
50283	MRC	CASABLANCA NOUASSER	007W33 37N17	AL RC NSR	0000-2400	2K10A2A	Y	14.0 dBW	ND	007W33 37N17	100 km	435.0000 kHz	
50475	MRC	CASABLANCA NOUASSER	007W34 32N00	AL RC NUA	0000-2400	2K06A2A	Y	14.0 dBW	ND	007W34 32N00	100 km	415.0000 kHz	
50279	MRC	DAKHLA	015W56 23N42	AL RC DKA	0000-2400	2K10A2A	Y	14.0 dBW	ND	015W56 23N42	100 km	421.0000 kHz	
50280	MRC	LAAYOUNE	013W13 27N10	AL RC LYN	0000-2400	2K10A2A	Y	14.0 dBW	ND	013W13 27N10	100 km	419.0000 kHz	
50278	MRC	MARRAKECH	008W15 31N05	AL RC CNZ	0000-2400	2K06A2A	Y	14.0 dBW	ND	008W15 31N05	100 km	430.0000 kHz	
50281	MRC	TAN TAN	011W07 28N35	AL RC TNA	0000-2400	2K10A2A	Y	14.0 dBW	ND	011W07 28N37	100 km	433.0000 kHz	
50284	MRC	TOUAHAR	004W10 34N12	AL RC CNV	0000-2400	2K06A2A	Y	14.0 dBW	ND	004W10 34N12	100 km	425.0000 kHz	

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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OMA

Oman (Sultanat d')
Oman (Sultanate of)
Omán (Sultanía de)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50555	OMA	ADAM	057E33 22N22	AL RC AD	0000-2400	1K20A2A	X	20.0 dBW	ND	057E33 22N22	150 km	426.0000 kHz	
50554	OMA	AYDIM	053E22 16N59	AL RC AY	0000-2400	1K20A2A	X	20.0 dBW	ND	053E22 16N59	150 km	419.0000 kHz	
50556	OMA	IBRI	056E30 23N14	AL RC IB	0000-2400	1K20A2A	X	20.0 dBW	ND	056E30 23N14	150 km	508.0000 kHz	
50559	OMA	MUSCAT	058E30 23N37	AL RC MS	0000-2400	304HF1BCN	X	20.0 dBW	ND	058E30 23N37	150 km	436.0000 kHz	
50560	OMA	MUSCAT	058E30 23N37	AL RC MCT	0000-2400	304HF1BCN	X	20.0 dBW	ND	058E30 23N37	150 km	525.0000 kHz	
50558	OMA	SALALAH	054E06 17N01	AL RC SL	0000-2400	304HF1BCN	X	20.0 dBW	ND	054E06 17N01	150 km	449.0000 kHz	
50557	OMA	SALIYA	053E25 17N53	AL RC SA	0000-2400	1K20A2A	X	20.0 dBW	ND	053E25 17N53	150 km	517.0000 kHz	

POR

Portugal

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50263	POR	BRAGA	008W27 41N35	AL RC BR	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	008W27 41N35	50 km		
50264	POR	COIMBRA	008W28 40N09	AL RC CB	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	008W28 40N09	50 km		
50265	POR	EVORA	007W53 38N31	AL RC EV	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	007W53 38N31	50 km		
50266	POR	PORTIMAO	008W35 37N09	AL RC PT	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	008W35 37N09	50 km		
50267	POR	SANTA CRUZ	009W22 39N07	AL RC SC	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	009W22 39N07	50 km		

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50268	POR	SINES	008W48 37N06	AL RC SI	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	008W48 37N06	50 km		
50057	POR	TANCOS	008W16 39N29	AL RC TO	0000-2400	2K04A2B	X	14.0 dBW	ND	008W16 39N29	65 km	423.0000 kHz	323
50383	POR	TANCOS	008W16 39N29	AL RC	0000-2400	100HA1A	X	20.0 dBW	ND	008W16 39N29	300 km		465
50384	POR	TANCOS	008W21 39N28	AL RC	0000-2400	100HA1A	X	20.0 dBW	ND	008W21 39N28	300 km	416.0000 kHz	466
50269	POR	VISEU	007W53 40N43	AL RC VIS	0000-2400	2K04A2AAN	Y	17.0 dBW	ND	007W53 40N43	50 km		

S

Suède
Sweden
Suecia

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50034	S	AENGELHOLM	012E54 56N16	AL RC AH	0000-2400	1K00A2A	Y	20.0 dBW	ND	012E54 56N16	28 km	268.0000 kHz	1167
50035	S	ANDERSTORP	013E38 57N17	AL RC AN	0000-2400	1K00A2A	Y	20.0 dBW	ND	013E38 57N17	28 km	268.0000 kHz	1168
50036	S	ARVIKA	012E38 59N40	AL RC R	0000-2400	1K00A2A	Y	20.0 dBW	ND	012E38 59N40	28 km	258.5000 kHz	1169
50037	S	BACCHUS	017E03 62N34	AL RC BCS	0000-2400	100HA1A	X	20.0 dBW	ND	017E03 62N34	47 km	267.5000 kHz	1170
50038	S	BERGA	018E13 59N04	AL RC BG	0000-2400	1K00A2A	Y	20.0 dBW	ND	018E13 59N04	47 km	407.0000 kHz	1170
50039	S	BERGA	018E07 59N04	AL RC BI	0000-2400	1K00A2A	Y	20.0 dBW	ND	018E07 59N04	47 km		1171
50040	S	BODEN	021E43 65N50	AL RC BO	0000-2400	1K00A2A	Y	20.0 dBW	ND	021E43 65N50	47 km	410.0000 kHz	1172
50041	S	BORLAENGE	015E25 60N28	AL RC BL	0000-2400	1K00A2A	Y	20.0 dBW	ND	015E25 60N28	28 km	277.0000 kHz	1173
50042	S	GAEVLE/SANDVIKEN	016E57 60N37	AL RC R	0000-2400	1K00A2A	Y	20.0 dBW	ND	016E57 60N37	28 km	258.5000 kHz	1167
50043	S	GREBBESTAD	011E15 58N42	AL RC GRE	0000-2400	100HA1A	X	20.0 dBW	ND	011E15 58N42	93 km	277.0000 kHz	1172

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50044	S	HALMSTAD 012E49 56N40	AL RC HS	0000-2400	1K00A2A	Y 20.0 dBW	ND	012E49 56N40 28 km	258.5000 kHz	1173
50045	S	KARLSKOGA 014E29 59N19	AL RC KA	0000-2400	1K00A2A	Y 20.0 dBW	ND	014E29 59N19 28 km	407.0000 kHz	1174
50046	S	LINKOEPING/SAAB 015E48 58N23	AL RC OL	0000-2400	1K00A2A	Y 20.0 dBW	ND	015E48 58N23 28 km	267.0000 kHz	1169
50047	S	LINKOEPING/SAAB 015E44 58N24	AL RC T	0000-2400	1K00A2A	Y 20.0 dBW	ND	015E44 58N24 28 km	277.0000 kHz	1173
50048	S	LUDVIKA 015E06 60N06	AL RC N	0000-2400	1K00A2A	Y 20.0 dBW	ND	015E06 60N06 28 km	258.5000 kHz	1169
50049	S	LUNDE 017E50 62N53	AL RC LUE	0000-2400	1K00A2A	Y 20.0 dBW	ND	017E50 62N53 47 km	277.0000 kHz	1173
50050	S	MALMOR/STURUP 013E24 55N28	AL RC SS	0000-2400	1K00A2A	Y 20.0 dBW	ND	013E24 55N28 28 km	277.0000 kHz	1174
50051	S	ORUST 011E34 58N13	AL RC ORU	0000-2400	1K00A2A	Y 20.0 dBW	ND	011E34 58N13 56 km	258.5000 kHz	1175
50052	S	SAATENAES 012E43 58N23	AL RC SG	0000-2400	1K00A2A	Y 20.0 dBW	ND	012E43 58N23 47 km	409.0000 kHz	1176
50053	S	TRUNDOEN 021E47 65N23	AL RC TRU	0000-2400	1K00A2A	Y 20.0 dBW	ND	021E47 65N23 28 km	277.0000 kHz	1173
50054	S	UMEAA 020E11 63N51	AL RC OU	0000-2400	1K00A2A	Y 20.0 dBW	ND	020E11 63N51 28 km	267.5000 kHz	1175
50055	S	VAARGAARDA 012E49 58N03	AL RC VG	0000-2400	1K00A2A	Y 20.0 dBW	ND	012E49 58N03 28 km	280.0000 kHz	1169
50056	S	VAESTERAAS/HAESSLOE 016E36 59N31	AL RC RD	0000-2400	1K00A2A	Y 20.0 dBW	ND	016E36 59N31 28 km	276.0000 kHz	1168

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
SUI		**Suisse (Confédération) Switzerland (Confederation of) Suiza (Confederación)**											
50027	SUI	BERN	007E31 46N54	AL RC BEN	0000-2400	2K00A2A	Y	14.0 dBW	ND	007E31 46N54	46 km	516.0000 kHz	
50028	SUI	BIRRFELD	008E14 47N27	AL RC BIR	0000-2400	2K00A2A	Y	14.0 dBW	ND	008E14 47N27	46 km	520.0000 kHz	
50029	SUI	LES EPLATURES	006E48 47N05	AL RC EPL	0000-2400	2K00A2A	Y	14.0 dBW	ND	006E48 47N05	46 km	522.0000 kHz	
50030	SUI	LOCARNO	008E53 46N10	AL RC LOC	0000-2400	2K00A2A	Y	14.0 dBW	ND	008E53 46N10	46 km	519.0000 kHz	
50031	SUI	LUGANO	008E55 46N00	AL RC LUG	0000-2400	2K00A2A	Y	14.0 dBW	ND	008E55 46N00	46 km	515.0000 kHz	
50032	SUI	SAMEDAN	009E53 46N32	AL RC SAM	0000-2400	2K00A2A	Y	14.0 dBW	ND	009E53 46N32	46 km	521.0000 kHz	
50033	SUI	SION	007E20 43N13	AL RC SIO	0000-2400	2K00A2A	Y	14.0 dBW	ND	007E20 43N13	46 km	523.0000 kHz	
TCH		**Tchécoslovaque (République socialiste) Czechoslovak Socialist Republic Checoslovaca (República Socialista)**											
50204	TCH	BENESOV	014E44 49N47	AL RC E	0000-2400	2K40A2A	Y	26.0 dBW	ND	014E44 49N47	150 km	466.0000 kHz	1190
50205	TCH	BRATISLAVA	017E14 48N11	AL RC D	0000-2400	2K40A2A	Y	14.0 dBW	ND	017E14 48N11	45 km	429.0000 kHz	1190
50206	TCH	BRNO	016E46 49N09	AL RC B	0000-2400	2K40A2A	Y	14.0 dBW	ND	016E46 49N09	45 km	429.0000 kHz	1190
50207	TCH	BRNO-MEDLANKY	016E35 49N13	AL RC LZ	0000-2400	2K40A2A	Y	26.0 dBW	ND	016E35 49N13	150 km	526.5000 kHz	1190
50209	TCH	CESKA LIPA	014E36 50N39	AL RC ND	0000-2400	2K40A2A	Y	26.0 dBW	ND	014E36 50N39	150 km	444.0000 kHz	1190

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50208	TCH	CHOCEN	016E08 50N00	AL RC PK	0000-2400	2K40A2A	Y	26.0 dBW	ND	016E08 50N00	150 km	481.5000 kHz	1190
50210	TCH	DESNA	015E33 48N58	AL RC OKF	0000-2400	2K40A2A	Y	18.0 dBW	ND	015E33 48N58	150 km	424.0000 kHz	1190
50211	TCH	FRYDLANT	015E02 50N54	AL RC OKX	0000-2400	2K40A2A	Y	18.0 dBW	ND	015E02 50N54	150 km	415.0000 kHz	1190
50212	TCH	HOSIN	014E29 41N02	AL RC MA	0000-2400	2K40A2A	Y	14.0 dBW	ND	014E29 41N02	45 km	421.0000 kHz	1190
50213	TCH	JAROMER	015E56 50N19	AL RC UR	0000-2400	2K40A2A	Y	26.0 dBW	ND	015E56 50N19	150 km	422.0000 kHz	1190
50214	TCH	JIHLAVA	015E36 49N24	AL RC P	0000-2400	2K40A2A	Y	26.0 dBW	ND	015E36 49N24	150 km	453.0000 kHz	1190
50215	TCH	KOLIN	015E11 50N01	AL RC LK	0000-2400	2K40A2A	Y	18.0 dBW	ND	015E11 50N01	45 km	523.5000 kHz	1190
50216	TCH	KOSICE	021E13 48N36	AL RC KE	0000-2400	2K40A2A	Y	16.5 dBW	ND	021E13 48N36	45 km	425.0000 kHz	1190
50217	TCH	KUNOVICE	017E30 49N07	AL RC KUN	0000-2400	2K40A2A	Y	14.0 dBW	ND	017E30 49N07	45 km	416.0000 kHz	1190
50218	TCH	MLADA BOLESLAV	014E59 50N21	AL RC DZ	0000-2400	2K40A2A	Y	26.0 dBW	ND	014E59 50N21	150 km	514.5000 kHz	1190
50219	TCH	PRAHA/MIDDLE	014E18 50N05	AL RC D	0000-2400	2K40A2A	Y	14.0 dBW	ND	014E18 50N05	45 km	429.0000 kHz	1190
50220	TCH	PROSTEJOV	017E06 49N30	AL RC P	0000-2400	2K40A2A	Y	26.0 dBW	ND	017E06 49N30	150 km	517.0000 kHz	1190
50221	TCH	SENICA	017E18 48N39	AL RC RP	0000-2400	2K40A2A	Y	26.0 dBW	ND	017E18 48N39	150 km	477.0000 kHz	1190
50222	TCH	SOBESLAV	014E46 49N14	AL RC AL	0000-2400	2K40A2A	Y	26.0 dBW	ND	014E46 49N14	150 km	488.0000 kHz	1190
50223	TCH	TATRY	020E05 49N05	AL RC PW	0000-2400	2K40A2A	Y	18.0 dBW	ND	020E05 49N05	90 km	418.0000 kHz	1190
50224	TCH	VODOCHODY	014E26 50N13	AL RC V	0000-2400	2K40A2A	Y	14.0 dBW	ND	014E26 50N13	45 km	416.0000 kHz	1190
50225	TCH	ZILINA	018E36 49N14	AL RC Z	0000-2400	2K40A2A	Y	14.0 dBW	ND	018E36 49N14	45 km	508.0000 kHz	1190

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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UKR

République socialiste soviétique d'Ukraine
Ukrainian Soviet Socialist Republic
República Socialista Soviética de Ucrania

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50197	UKR	BOBRKA		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	024E16 49N39	150 km	432.0000 kHz	312
	URS		024E16 49N39	CA									
50200	UKR	DNEPROPETROVSK		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	035E00 48N29	150 km		315
	URS		035E00 48N29	BB									
50194	UKR	DONETSK		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	037E48 47N56	150 km		309
	URS		037E48 47N56	AK									
50193	UKR	IVANOFRANKOVSK		AL RC	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	024E42 48N56	50 km		308
	URS		024E42 48N56	D									
50186	UKR	JITOMIR		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	028E20 50N16	150 km		298
	URS		028E20 50N16	WY									
50195	UKR	JITOMIR		AL RC	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	028E20 50N16	50 km		310
	URS		028E20 50N16	W									
50187	UKR	LVOV		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	024E00 49N50	150 km		302
	URS		024E00 49N50	FS									
50183	UKR	MELITOPOL		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	035E22 46N50	150 km		298
	URS		035E22 46N50	ML									
50198	UKR	MELITOPOL		AL RC	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	035E22 46N50	50 km		312
	URS		035E22 46N50	M									
50190	UKR	ODESSA		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	030E44 46N28	150 km		305
	URS		030E44 46N28	BO									
50189	UKR	PERVOMAISK		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	030E13 50N27	150 km		304
	URS		030E13 50N27	QD									
50196	UKR	PERVOMAISK		AL RC	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	030E13 50N27	50 km		311
	URS		030E13 50N27	P									
50182	UKR	PII		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	031E08 49N52	150 km	425.0000 kHz	297
	URS		031E08 49N52	DQ									
50188	UKR	POLTAVA		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	034E36 49N36	150 km		302
	URS		034E36 49N36	NT									
50201	UKR	SEMENOVKA		AL RC	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	032E33 52N12	150 km	435.0000 kHz	316
	URS		032E33 52N12	LI									

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50181	UKR URS	SIMFEROPOL 034E06 44N56	AL RC M	0000-2400	2K10A2AAN Y	26.0 dBW	ND	034E06 44N56 50 km		297
50199	UKR URS	SIMFEROPOL 034E06 44N56	AL RC MP	0000-2400	2K10A2AAN Y	30.0 dBW	ND	034E06 44N56 150 km		314
50203	UKR URS	TCHERNIAKHOV 028E42 50N27	AL RC UP	0000-2400	2K10A2AAN Y	30.0 dBW	ND	028E42 50N27 150 km	525.0000 kHz	318
50191	UKR URS	TCHERNOVTSY 025E55 48N20	AL RC NW	0000-2400	2K10A2AAN Y	30.0 dBW	ND	025E55 48N20 150 km		297
50202	UKR URS	TCHISTIAKOVO 038E16 48N03	AL RC TW	0000-2400	2K10A2AAN Y	30.0 dBW	ND	038E16 48N03 150 km		317
50185	UKR URS	VINNITSA 028E30 49N15	AL RC WK	0000-2400	2K10A2AAN Y	30.0 dBW	ND	028E30 49N15 150 km		300
50184	UKR URS	ZAPOROJIE 034E19 48N31	AL RC Z	0000-2400	2K10A2AAN Y	26.0 dBW	ND	034E19 48N31 50 km		299
50192	UKR URS	ZAPOROJIE 034E19 48N31	AL RC ZA	0000-2400	2K10A2AAN Y	30.0 dBW	ND	034E19 48N31 150 km		307

URS

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50132	URS	ARKHANGHELSK 040E12 64N33	AL RC KM	0000-2400	2K10A2AAN Y	30.0 dBW	ND	040E12 64N33 150 km		235
50152	URS	ARKHANGHELSK 040E12 64N33	AL RC K	0000-2400	2K10A2AAN Y	26.0 dBW	ND	040E12 64N33 50 km		247
50163	URS	ARMAVIR 040E49 45N00	AL RC HU	0000-2400	2K10A2AAN Y	30.0 dBW	ND	040E49 45N00 150 km		255
50135	URS	ASTRAKHAN 048E00 46N22	AL RC GV	0000-2400	2K10A2AAN Y	30.0 dBW	ND	048E00 46N22 150 km		237
50128	URS	BAKU 049E45 40N20	AL RC BK	0000-2400	2K10A2AAN Y	30.0 dBW	ND	049E45 40N20 150 km		234
50153	URS	BAKU 049E45 40N20	AL RC B	0000-2400	2K10A2AAN Y	26.0 dBW	ND	049E45 40N20 50 km		247
50155	URS	BALACHOV 043E10 51N35	AL RC TQ	0000-2400	2K10A2AAN Y	30.0 dBW	ND	043E10 51N35 150 km		248

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50168	URS	BRIANSK	034E02 53N14	AL RC OD	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	034E02 53N14	150 km		257
50141	URS	EISK	038E16 46N40	AL RC EK	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	038E16 46N40	150 km		239
50144	URS	GALI	041E45 42N38	AL RC GL	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	041E45 42N38	150 km		241
50138	URS	GELENDJIK	038E03 44N33	AL RC GD	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	038E03 44N33	150 km		238
50149	URS	GORKA	032E22 59N48	AL RC BL	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	032E22 59N48	150 km	434.0000 kHz	246
50169	URS	GROZNYI	045E40 43N20	AL RC M	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	045E40 43N20	50 km		257
50177	URS	GROZNYI	045E40 43N20	AL RC MT	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	045E40 43N20	150 km		263
50158	URS	KALATCH	040E40 50N26	AL RC N	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	040E40 50N26	50 km		251
50147	URS	KALININGRAD	020E30 54N42	AL RC KD	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	020E30 54N42	150 km		244
50142	URS	KAUNAS	024E00 54N55	AL RC GW	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	024E00 54N55	150 km		240
50124	URS	KICHINEV	028E52 47N00	AL RC O	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	028E52 47N00	50 km		231
50131	URS	KRASNODAR	038E39 45N02	AL RC BA	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	038E39 45N02	150 km		234
50160	URS	KURSK	036E12 51N46	AL RC WA	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	036E12 51N46	150 km		253
50179	URS	KURSK	036E12 51N46	AL RC W	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	036E12 51N46	50 km		265
50139	URS	KUTAISI	042E42 42N16	AL RC KH	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	042E42 42N16	150 km		238
50150	URS	KUTAISI	042E42 42N16	AL RC KH	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	042E42 42N16	150 km		246
50127	URS	LENINAKAN	043E51 40N49	AL RC LK	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	043E51 40N49	150 km		233
50167	URS	LENINAKAN	043E51 40N49	AL RC L	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	043E51 40N49	50 km		256

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50174	URS	LENINAKAN 043E51 40N49	AL RC LS	0000-2400	2K10A2AAN Y	30.0 dBW	ND	043E51 40N49 150 km		261
50164	URS	MAKHATCHKALA 047E31 42N59	AL RC SM	0000-2400	2K10A2AAN Y	30.0 dBW	ND	047E31 42N59 150 km		255
50180	URS	MAKHATCHKALA 047E31 42N59	AL RC S	0000-2400	2K10A2AAN Y	26.0 dBW	ND	047E31 42N59 50 km		265
50148	URS	MINERALNYE VODY 043E09 44N13	AL RC N	0000-2400	2K10A2AAN Y	26.0 dBW	ND	043E09 44N13 50 km		245
50159	URS	MITCHURINSK 040E11 52N54	AL RC MR	0000-2400	2K10A2AAN Y	30.0 dBW	ND	040E11 52N54 150 km		252
50172	URS	MITCHURINSK 040E11 52N54	AL RC M	0000-2400	2K10A2AAN Y	26.0 dBW	ND	040E11 52N54 50 km		260
50133	URS	MONTCHEGORSK 032E57 67N59	AL RC MG	0000-2400	2K10A2AAN Y	30.0 dBW	ND	032E57 67N59 150 km		235
50171	URS	MUKHRANI 044E34 41N55	AL RC DF	0000-2400	2K10A2AAN Y	30.0 dBW	ND	044E34 51N55 150 km	520.0000 kHz	259
50125	URS	MURMANSK 032E46 68N58	AL RC PF	0000-2400	2K10A2AAN Y	30.0 dBW	ND	032E46 68N58 150 km		231
50143	URS	MURMANSK 032E46 68N58	AL RC P	0000-2400	2K10A2AAN Y	26.0 dBW	ND	032E46 68N58 50 km		240
50140	URS	NOVGOROD 031E18 58N32	AL RC QP	0000-2400	2K10A2AAN Y	30.0 dBW	ND	031E18 58N32 150 km		238
50176	URS	NOVGOROD 031E18 58N32	AL RC Q	0000-2400	2K10A2AAN Y	26.0 dBW	ND	031E18 58N32 50 km		262
50170	URS	NUKHA 047E10 41N12	AL RC NH	0000-2400	2K10A2AAN Y	30.0 dBW	ND	047E10 41N12 150 km		258
50156	URS	ORIOL 035E45 53N00	AL RC O	0000-2400	2K10A2AAN Y	26.0 dBW	ND	035E45 53N00 50 km		249
50162	URS	ORIOL 035E45 53N00	AL RC OL	0000-2400	2K10A2AAN Y	30.0 dBW	ND	035E45 53N00 150 km		254
50145	URS	PETROZAVODSK 034E04 61N47	AL RC QD	0000-2400	2K10A2AAN Y	30.0 dBW	ND	034E04 61N47 150 km		242
50178	URS	PETROZAVODSK 034E04 61N47	AL RC Q	0000-2400	2K10A2AAN Y	26.0 dBW	ND	034E04 61N47 50 km		264
50165	URS	PSKOV 028E00 57N43	AL RC P	0000-2400	2K10A2AAN Y	26.0 dBW	ND	028E00 57N43 50 km		255

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50173	URS	PSKOV	028E00 57N43	AL RC PS	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	028E00 57N43	150 km		260
50121	URS	RIGA	024E07 56N58	AL RC A	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	024E07 56N58	50 km		230
50154	URS	ROSTOV NA DONU	039E24 47N13	AL RC FI	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	039E24 47N13	150 km		247
50151	URS	SHAULAY	023E15 55N56	AL RC H	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	023E15 55N56	50 km		246
50157	URS	SMOLENSK	031E43 54N48	AL RC SM	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	031E43 54N48	150 km		250
50146	URS	SOTCHI	039E42 43N35	AL RC BW	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	039E42 43N35	150 km		243
50122	URS	SUKHUMI	041E00 43N00	AL RC AV	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	041E00 43N00	150 km		230
50126	URS	TALLIN	024E47 59N27	AL RC L	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	024E47 59N27	50 km		232
50137	URS	TALLIN	024E47 59N27	AL RC LK	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	024E47 59N27	150 km		237
50134	URS	TUAPSE	039E05 44N06	AL RC TU	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	039E05 44N06	150 km		236
50136	URS	VELIKIE LUKI	030E12 56N22	AL RC W	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	030E12 56N22	50 km		237
50166	URS	VELIKIE LUKI	030E12 56N22	AL RC WK	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	030E12 56N22	150 km	515.0000 kHz	256
50129	URS	VILNIUS	025E18 54N40	AL RC AV	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	025E18 54N40	150 km		234
50161	URS	VYBORG	028E46 60N42	AL RC BR	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	028E46 60N42	150 km		254
50123	URS	YEREVAN	044E36 40N14	AL RC BQ	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	044E36 40N14	150 km		231
50130	URS	YEREVAN	044E36 40N14	AL RC B	0000-2400	2K10A2AAN	Y	26.0 dBW	ND	044E36 40N14	50 km		234
50175	URS	ZAKATALY	046E40 41N38	AL RC ZG	0000-2400	2K10A2AAN	Y	30.0 dBW	ND	046E40 41N38	150 km		262

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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YUG

Yougoslavie (République socialiste fédérative de)
Yugoslavia (Socialist Federal Republic of)
Yugoslavia (República Socialista Federativa de)

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50311	YUG	CACAK	020E10 43N53	AL RC PNK	0000-2400	2K10A2A	Y	23.0 dBW	ND	020E10 43N53	50 km	515.0000 kHz	325
50308	YUG	DOLSKO	014E41 46N06	AL RC DSO	0000-2400	2K10A2A	Y	23.0 dBW	ND	014E41 46N06	50 km	509.0000 kHz	325
50302	YUG	DOMANOVICI	017E47 43N08	AL RC DM	0000-2400	2K10A2A	Y	23.0 dBW	ND	017E47 43N08	15 km	428.0000 kHz	325
50294	YUG	DRVENIK	016E09 43N27	AL RC DVN	0000-2400	2K10A2A	Y	23.0 dBW	ND	016E09 43N27	50 km	418.0000 kHz	325
50296	YUG	KARLOVCI	019E57 45N12	AL RC SKL	0000-2400	2K10A2A	Y	20.0 dBW	ND	019E57 45N12	50 km	420.0000 kHz	325
50312	YUG	KAVRAN	014E01 44N54	AL RC KAV	0000-2400	2K10A2A	Y	20.0 dBW	ND	014E01 44N54	50 km	516.0000 kHz	325
50305	YUG	KRUSEVAC	021E20 43N36	AL RC KRS	0000-2400	2K10A2A	Y	21.7 dBW	ND	021E20 43N36	100 km	435.0000 kHz	325
50310	YUG	LJUBLJANA	014E34 46N10	AL RC MG	0000-2400	2K10A2A	Y	19.0 dBW	ND	014E34 46N10	25 km	513.0000 kHz	325
50293	YUG	LUCKO	016E04 45N45	AL RC LK	0000-2400	2K10A2A	Y	20.0 dBW	ND	016E04 45N45	25 km	417.0000 kHz	325
50304	YUG	MALI LOSINJ	014E28 44N32	AL RC LOS	0000-2400	2K10A2A	Y	24.7 dBW	ND	014E28 44N32	100 km	434.0000 kHz	325
50297	YUG	MARIBOR	015E42 46N28	AL RC MI	0000-2400	2K10A2A	Y	17.8 dBW	ND	015E42 46N28	25 km	422.0000 kHz	325
50318	YUG	MOJKOVAC	019E35 42N57	AL RC MOJ	0000-2400	2K10A2A	Y	24.7 dBW	ND	019E35 42N57	100 km	526.0000 kHz	325
50298	YUG	NIKSIC	018E55 42N46	AL RC NIK	0000-2400	2K10A2A	Y	24.7 dBW	ND	018E55 42N46	100 km	423.0000 kHz	325
50303	YUG	OHRID	020E40 41N13	AL RC IZD	0000-2400	2K10A2A	Y	19.0 dBW	ND	020E40 41N13	50 km	432.0000 kHz	325
50426	YUG	OHRID	020E40 41N23	AL RC VN	0000-2400	2K10A2A	Y	19.0 dBW	ND	020E40 41N23	25 km	417.0000 kHz	325

REQUIREMENTS FOR AERONAUTICAL RADIOBEACONS
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IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. IDENTIFIC.	OP-HOURS	EMISSION		POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
50291	YUG	OSIJEK	018E51 45N27	AL RC OK	0000-2400	2K10A2A	Y	17.8 dBW	ND	018E51 45N27	25 km	415.0000 kHz	325
50317	YUG	OSIJEK	018E59 45N25	AL RC OSJ	0000-2400	2K10A2A	Y	21.7 dBW	ND	018E59 45N25	50 km	523.0000 kHz	325
50301	YUG	POZAREVAC	021E09 44N37	AL RC POZ	0000-2400	2K10A2A	Y	21.7 dBW	ND	021E09 44N37	50 km	428.0000 kHz	325
50299	YUG	PRILEP	021E27 41N20	AL RC PEP	0000-2400	2K10A2A	Y	23.0 dBW	ND	021E27 41N20	100 km	426.0000 kHz	325
50300	YUG	RIJEKA	014E39 45N08	AL RC RI	0000-2400	2K10A2A	Y	19.0 dBW	ND	019E39 45N08	25 km	426.0000 kHz	325
50319	YUG	RIJEKA	014E27 45N20	AL RC KO	0000-2400	2K10A2A	Y	19.0 dBW	ND	014E27 45N20	25 km	526.0000 kHz	325
50306	YUG	SARAJEVO	018E27 43N56	AL RC SAR	0000-2400	2K10A2A	Y	24.7 dBW	ND	018E27 43N56	150 km	506.0000 kHz	325
50295	YUG	SKOPJE	021E30 41N55	AL RC PT	0000-2400	2K10A2A	Y	20.0 dBW	ND	021E30 41N55	25 km	420.0000 kHz	325
50307	YUG	SKOPJE	021E42 41N44	AL RC BU	0000-2400	2K10A2A	Y	19.0 dBW	ND	021E42 41N44	50 km	509.0000 kHz	325
50316	YUG	SLOVENJGRADEC	015E05 46N30	AL RC SG	0000-2400	2K10A2A	Y	20.0 dBW	ND	015E05 46N30	25 km	522.0000 kHz	325
50313	YUG	TITOGRAD	019E08 42N33	AL RC DAN	0000-2400	2K10A2A	Y	21.7 dBW	ND	019E08 42N33	50 km	519.0000 kHz	325
50292	YUG	UZICE	019E52 43N46	AL RC VC	0000-2400	2K10A2A	Y	19.0 dBW	ND	019E52 43N46	25 km	416.0000 kHz	325
50315	YUG	VRLIKA	016E26 43N56	AL RC VRL	0000-2400	2K10A2A	Y	20.0 dBW	ND	016E26 43N56	50 km	521.0000 kHz	325
50309	YUG	VRSAC	021E35 45N15	AL RC VAC	0000-2400	2K10A2A	Y	19.0 dBW	ND	021E35 45N15	50 km	511.0000 kHz	325
50314	YUG	ZAGREB	015E51 45N36	AL RC PI	0000-2400	2K10A2A	Y	19.0 dBW	ND	015E51 45N36	25 km	519.0000 kHz	325

ANNEX 5

REMARKS

Supplied by the Administrations in relation to their requirements

10 This assignment will replace 476 kHz and 519 kHz currently assigned to ILFRACOMBE FC.

11 This assignment will replace 438 kHz and 522 kHz currently assigned to LANDS END.

12 2 070 kHz - assigned to AKROTIRI FXCO. See also Remark No. 396.

13 This assignment will replace 1 612 kHz and 1 615 kHz currently assigned to PORTISHEAD. See also Remark No. 396.

20 Replaces 1 713.4, 1 716.4, 1 790.4 and 1 793.4 kHz. See also Remark No. 395.

21 Replaces 1 790.4, 1 793.4, 1 839.4 and 1 841.4 kHz. See also Remark No. 395.

23 Replaces 1 734.4, 1 737.4, 1 790.4 and 1 793.4 kHz. See also Remark No. 395.

24 Replaces 1 790.4, 1 793.4, 1 839.4 and 1 842.4 kHz. See also Remark No. 395.

29 Replaces 1 790.4, 1 793.4 and 1 835.4 kHz. See also Remark No. 395.

30 Replaces 1 790.4, 1 793.4 and 1 849.4 kHz. See also Remark No. 395.

31 Replaces 1 825.4 kHz currently assigned to WICK FC. See also Remark No. 395.

32 Replaces 1 704.4 kHz currently assigned to WICK FC. See also Remark No. 395.

35 Remote control.

36 New Frequency: 436.0 kHz.

37 New Frequency: 526.0 kHz.

38 New Frequency: 449.0 kHz.

39 New Frequency: 461.0 kHz.

40 Designation of emission: 100HA1A (Day) and 2K10A2A (Night).

41 a) Requirements: one frequency in 1 635 - 1 800 kHz band
two frequencies in 2 045 - 2 160 kHz band.
b) Designation of emission: 2K70J3E and 3K00H3E.

42 The following frequencies are proposed by ICAO* for the Danish stations:

HERNING	419 kHz	ODENSE	423 kHz
KARUP	432 kHz	ROSKILDE	431 kHz
KASTRUP	427 kHz	TIRSTRUP	434 kHz
KIRSTINESMINDE	429 kHz.		

* ICAO: International Civil Aviation Organization

49 Single frequency for all following Italian coast stations for digital selective calling (DSC) in the band 0.5 MHz.

ANCONA/IPA	13E28	43N36
AUGUSTA/IQA	15E13	37N13
BARI/IPB	17E25	40N26
CAGLIARI/IDC	09E07	39N15
GENOVA/ICB	08E56	44N25
NAPOLI/IQH	14E14	40N50
ROMA/IAR	12E31	41N48
TRIESTE/IQX	13E46	45N40.

50 Single frequency for all following Italian coast stations for digital selective calling (DSC) in the band 2 MHz.

ANCONA/IPA	13E28	43N36
AUGUSTA/IQA	15E13	37N13
BARI/IPB	16E59	41N05
CAGLIARI/IDC	09E07	39N15
CIVITAVECCHIA/IPD	11E49	42N01
CROTONE/IPC	17E08	39N03
GENOVA/ICB	08E56	44N25
LAMPEDUSA/IQN	12E36	35N30
LIVORNO/IPL	10E21	43N29
MAZARA DEL VALLO/IQQ	12E34	37N38
MESSINA/IDF	15E33	38N11
NAPOLI/IQH	14E14	40N50
PALERMO/IPP	13E22	38N07
PORTO TORRES/IZN	08E23	40N50
S.BENEDETTO TR./IQP	13E52	42N57
ROMA/IAR	12E31	41N48
TRAPANI/IQM	12E30	38N01
TRIESTE/IQX	13E46	45N40
VENEZIA/IPN	12E21	45N26.

51 Two pairs of frequencies are required in the band 435 - 526 kHz besides distress, safety and calling frequencies.

53 One pair of frequencies is required in the band between 1 606.5 kHz and 2 160 kHz besides distress, safety and calling frequencies.

54 One pair of frequencies is required for narrow band direct printing telegraphy and another pair of frequencies for digital selective calling in the band 1 606.5 - 2 160 kHz, besides distress, safety and calling frequencies.

55 The following coast stations may use the same frequency in the band 1 606.5 - 1 625 kHz for their F1B transmissions:
Aelvsborg Radio
Haarsfjaerden Radio
Karlskrona Radio
Ruda Radio
Tingstraede Radio.

56 The following coast stations may use the same frequency in the band 435 - 526.5 kHz for their A1A transmissions (official correspondence):
Karlskrona Radio
Ruda Radio.

57 The following coast stations may use the same frequency in the band 435 - 526.5 kHz for their A1A transmissions (official correspondence):
Haarsfjaerden Radio
Tingstaede Radio.

75 DSC: 1 606.5 - 1 625 kHz.

76 Requirements: one frequency in 415 - 435 kHz band
one frequency in 505 - 526.5 kHz band.

77 Digital selective calling.

78 Narrow-band directing-printing.

82 Also to be used for Morse telegraphy.

90 Request for a frequency for digital selective calling.

91 Request for a frequency for digital selective calling in the band 0.5 MHz.

92 Request for a frequency for narrow-band direct-printing radiotelegraphy (NBDP) in the band 0.5 MHz.

93 Request for a frequency for narrow-band direct-printing radiotelegraphy (NBDP) in the band 2 MHz.

94 Transportable beacon to be used throughout Spain in the event of disaster.

95 Has been assigned frequency 265 kHz but is currently operating on 410 kHz.

116 Requirement for aeronautical radiobeacons on board ship. Names and identification have not yet been assigned. The beacons could be located anywhere within the approximate area outlined on the accompanying map which is on the last page of this Annex.

117 Requirement for aeronautical radiobeacons for use on oil rigs or platforms. The beacons could be located anywhere within the approximate area outlined on the accompanying map which is on the last page of this Annex.

118 a) For single frequency use and the same frequency should be assigned to all the stations having the Remark No. 118.
b) The stations mentioned in a) above are also associated with UK stations Maiden's Rock, Mew Island, South Rock, Ferris Point and Rathlin East and accordingly the same frequency must be assigned to this combined group of UK and Irish stations (see Remark No. 414).

119 The frequency 435 kHz is to be replaced.

120 Same frequency as S. MIGUEL and MADEIRA.

121 The frequency 476.0 kHz is to be replaced. A frequency in the 510.5 - 517 kHz sub-band is required.

122 The assigned frequency 522 kHz, in use at present, is to be retained.

123 The frequency 487 kHz is to be replaced. A frequency in the 510.5 - 517 kHz sub-band is required.

124 The assigned frequency 450.0 kHz is to be retained.

125 Same frequency as PORTIMÃO.

126 Same frequency as AVEIRO.

127 Same frequency as OLHÃO.

128 Same frequency as FIGUEIRA DA FOZ.

129 Same frequency as SETÚBAL.

130 Same frequency as MATOSINHOS.

131 Same frequency as PENICHE.

132 Same frequency as VILA REAL DE SANTO ANTÓNIO.

133 The frequency 421 kHz is to be replaced.

134 Same frequency as LISBOA and MADEIRA.

135 The frequency 487.0 kHz, is to be replaced. A frequency in the 510.5 - 517 kHz sub-band is required.

136 The assigned frequency 516 kHz, in use at present, is to be retained.

137 The frequency 1 664.9 kHz is to be replaced. Same frequency as MADEIRA.

138 The assigned frequency 444 kHz, in use at present, is to be retained.

139 Same frequency as LISBOA and S. MIGUEL.

140 The frequency 519 kHz, in use at present at FUNCHAL RADIO (MDR), is to be retained.

141 The frequency 1 664.9 kHz is to be replaced. Same frequency as S. MIGUEL.

142 Frequencies indicated (frequency in use) are frequencies planned by Yugoslav Administration. It is to be understood that these indications could be replaced with the results of planning and coordination. The following present assignments should be noted: BAR (472 kHz), DUBROVNIK (447 kHz), RIJEKA (438 kHz), SPLIT (484 kHz) all operating with 100HA1A.

143 Becomes operational: 1985.

144 Becomes operational: 1986.

145 Operational since: 01.05.1953.

148 Frequencies used: 1 814.40 kHz and 1 811.40 kHz.

149 New requirement.

150 Requirements in the bands 415 - 526.5 kHz : 2.

151 Requirements in the bands 1 606.5 - 1 625 kHz : 8.

152 Designation of emission: 2K70J3E, 2K99R3E.

230 Proposed frequency: 415 kHz.

231 Proposed frequency: 416 kHz.

232 Proposed frequency: 418 kHz.

233 Proposed frequency: 419 kHz.

234 Proposed frequency: 420 kHz.

235 Proposed frequency: 422 kHz.

236 Proposed frequency: 424 kHz.

237 Proposed frequency: 425 kHz.

238 Proposed frequency: 426 kHz.

239 Proposed frequency: 427 kHz.

240 Proposed frequency: 428 kHz.

241 Proposed frequency: 429 kHz.

242 Proposed frequency: 430 kHz.

243 Proposed frequency: 431 kHz.

244 Proposed frequency: 432 kHz.

245 Proposed frequency: 433 kHz.

246 Proposed frequency: 434 kHz.

247 Proposed frequency: 435 kHz.

248 Proposed frequency: 505 kHz.

249 Proposed frequency: 506 kHz.

250 Proposed frequency: 507 kHz.

251 Proposed frequency: 508 kHz.

252 Proposed frequency: 509 kHz.

253 Proposed frequency: 510 kHz.

254 Proposed frequency: 511 kHz.

255 Proposed frequency: 514 kHz.

256 Proposed frequency: 515 kHz.

257 Proposed frequency: 516 kHz.

258 Proposed frequency: 517 kHz.

259 Proposed frequency: 520 kHz.

260 Proposed frequency: 521 kHz.

261 Proposed frequency: 522 kHz.

262 Proposed frequency: 523 kHz.

263 Proposed frequency: 524 kHz.

264 Proposed frequency: 525 kHz.

265 Proposed frequency: 526 kHz.

290 Proposed frequency: 417 kHz.

291 Proposed frequency: 423 kHz.

292 Proposed frequency: 427 kHz.

293 Proposed frequency: 430 kHz.

294 Proposed frequency: 435 kHz.

295 Proposed frequency: 524 kHz.

296 Proposed frequency: 418 kHz.

297 Proposed frequency: 425 kHz.

298 Proposed frequency: 419 kHz.

299 Proposed frequency: 417 kHz.

300 Proposed frequency: 415 kHz.

302 Proposed frequency: 421 kHz.

304 Proposed frequency: 423 kHz.

305 Proposed frequency: 424 kHz.

307 Proposed frequency: 426 kHz.

308 Proposed frequency: 428 kHz.

309 Proposed frequency: 429 kHz.

310 Proposed frequency: 430 kHz.

311 Proposed frequency: 431 kHz.

312 Proposed frequency: 432 kHz.

314 Proposed frequency: 433 kHz.

315 Proposed frequency: 434 kHz.

316 Proposed frequency: 435 kHz.

317 Proposed frequency: 519 kHz.

318 Proposed frequency: 525 kHz.

319 Alternatively with LEIPZIG S.

320 Alternatively with LEIPZIG M.

321 Alternatively with BERLIN SCHOENEFELD M.

322 Alternatively with BERLIN SCHOENEFELD S.

323 The assigned frequency 423 kHz, in use at present, is to be retained.

325 Frequencies indicated (frequency in use) are frequencies planned by Yugoslav Administration.
It is to be understood that these indications could be replaced with results of planning and coordination.
It is to be noted that the following aeronautical radiobeacons are in operation:
OSIJEK (415 kHz), OHRID (417 kHz), DOMANOVIĆI (428 kHz), OHRID (432 kHz), MALI LOSINJ (434 kHz), and that the present frequency assignment for POZAREVAC (427 kHz) is intended to be replaced as POZAREVAC (428 kHz). Attention is also drawn to the fact that the particulars of the beacons listed below are published in Part IA of the weekly IFRB Circular.

OSIJEK	415 kHz
OHRID	417 kHz
DRVENIK	418 kHz
KARLOVCI	420 kHz
CACAK	423 kHz
POZAREVAC	427 kHz
DOMANOVIĆI	428 kHz
OHRID	432 kHz
MALI LOSINJ	434 kHz
VRSAC	434 kHz.

328 Requirement for digital selective calling in the frequency band 1 606.5 - 1 625 kHz. The same frequency to be assigned to all coast stations having Remark No. 328.

329 Requirement for digital selective calling in the frequency band 435 - 526.5 kHz. The same frequency to be assigned to all coast stations having Remark No. 329.

395 Requirement for single sideband radiotelephony in the frequency band 1 635 - 1 800 kHz.

396 Requirement for narrow-band direct-printing telegraphy in the frequency band 1 606.5 - 1 625 kHz.

397 Requirement for digital selective calling in the frequency band 435 - 526.5 kHz. The same frequency to be assigned to all coast stations having Remark No. 397.

398 Requirement for digital selective calling in the frequency band 1 606.5 - 1 625 kHz. The same frequency to be assigned to all coast stations having Remark No. 398.

399 MILLTOWN FC (IFRB No. 125) and ST. EVAL FC (IFRB No. 132) to be assigned the same frequency. See also Remark No. 396.

400 MILLTOWN FC (IFRB No. 126) and ST. EVAL FC (IFRB No. 133) to be assigned the same frequency. See also Remark No. 396.

401 MILLTOWN FC (IFRB No. 127) and ST. EVAL FC (IFRB No. 134) to be assigned the same frequency. See also Remark No. 396.

402 GIBRALTAR FC (IFRB No. 55) and ST. HELENA FC (IFRB No. 47) to be assigned the same frequency. See also Remark No. 396.

403 HUMBER FC, STONEHAVEN FC and WICK FC to be assigned the same frequency. See also Remark No. 395.

404 MILLTOWN FC (IFRB No. 151) to be assigned the same frequency as ST. EVAL FC (IFRB No. 164). See also Remark No. 395.

405 MILLTOWN FC (IFRB No. 152) to be assigned the same frequency as ST. EVAL FC (IFRB No. 165). See also Remark No. 395.

406 MILLTOWN FC (IFRB No. 153) to be assigned the same frequency as ST. EVAL FC (IFRB No. 166). See also Remark No. 395.

407 MILLTOWN FC (IFRB No. 154) to be assigned the same frequency as ST. EVAL FC (IFRB No. 167). See also Remark No. 395.

408 GIBRALTAR FC (IFRB No. 56) to be assigned the same frequency as ST. HELENA FC (IFRB No. 49). See also Remark No. 395.

409 GIBRALTAR FC (IFRB No. 57) to be assigned the same frequency as ST. HELENA FC (IFRB No. 48). See also Remark No. 395.

410 a) Requirement for single sideband radiotelephony (unpaired operation) in the frequency band 1 635 - 1 800 kHz. Ship stations will communicate with coast stations on this frequency under the provisions of No. 961 of the Radio Regulations (i.e., a paired ship station frequency will not be required).
b) The same frequency to be assigned to all coast stations having Remark No. 410.

411 a) Requirement for single sideband radiotelephony (unpaired operation) in the frequency band 1 635 - 1 800 kHz. Ship stations will communicate with coast stations on this frequency under the provisions of No. 961 of the Radio Regulations (i.e., a paired ship station frequency will not be required).
b) The same frequency to be assigned to all coast stations having Remark No. 411.
c) FLATHOLM LSTN replaces G WELSH LSH;
SWANSEA COASTGUARD replaces MUMBLES;
THAMES COASTGUARD replaces WALTON ON NAZE.

412 a) Requirement for single sideband radiotelephony (unpaired operation) in the frequency band 1 635 - 1 800 kHz. Ship stations will communicate with coast stations on this frequency under the provisions of No. 961 of the Radio Regulations (i.e., a paired ship station frequency will not be required).
b) The same frequency to be assigned to all coast stations having Remark No. 412.
c) CALF OF MAN LTSN replaces CREGNEISH;
HYSKEIR LTSN replaces OIGH SGEIR;
DOVER COASTGUARD replaces DEAL;
LIVERPOOL COASTGUARD replaces FORMBY;
MILFORD HAVEN COASTGUARD replaces ST DAVIDS;
MUCKLE FLUGGA LTSN replaces N UNST LSH;
SHETLAND COASTGUARD replaces LERWICK.

413 a) Requirement for single sideband radiotelephony (unpaired operation) in the frequency band 1 635 - 1 800 kHz. Ship stations will communicate with coast stations on this frequency under the provisions of No. 961 of the Radio Regulations (i.e., a paired ship station frequency will not be required).
b) The same frequency to be assigned to all coast stations having Remark No. 413.

414 a) Requirement for single sideband radiotelephony (unpaired operation) in the frequency band 1 635 - 1 800 kHz. Ship stations will communicate with coast stations on this frequency under the provisions of No. 961 of the Radio Regulations (i.e., a paired ship station frequency will not be required).
b) The same frequency to be assigned to all coast stations having Remark No. 414.
c) The following stations of the United Kingdom work in conjunction with certain coast stations under the administration of the Republic of Ireland; the carrier frequency used by some 18 coast stations in the Republic of Ireland is 1 662.5 kHz (assigned frequency 1 663.9 kHz); insofar as is practicable the 5 United Kingdom coast stations FERRIES POINT, MAIDENS ROCK, MEW ISLAND, RATHLIN EAST and SOUTH ROCK should be assigned the same frequency as the 18 coast stations in the Republic of Ireland (see Remark No. 118).
d) BRIXHAM COASTGUARD replaces RAME HEAD;
YARMOUTH COASTGUARD replaces GT YARMOUTH.

415 Requirement for morse telegraphy in the frequency band 435 - 526.5 kHz. The same frequency to be assigned to the two coast stations ST. HELENA and GIBRALTAR.

442 Back-up frequency.

443 Traffic frequency.

444 Directing-printing radiotelegraphy (project).

445 Radiotelephony (project).

446 Radiotelegraphy (project).

462 NOC requested.

464 a) The frequency 416 kHz is to be retained.
b) This frequency can be used too with the class of emission 2K10A2A.

465 a) A frequency from the 415 - 425 kHz sub-band is required.
b) This frequency can be used too with the class of emission 2K10A2A.

466 a) The frequency 416 kHz is to be retained.
b) This frequency can be used too with the class of emission 2K10A2A.

467 a) The frequency 416 kHz is to be retained.
b) This frequency can be used too with the class of emission 2K10A2A.

468 Requirement replaces present frequency 476 kHz which has been assigned for ship stations.

471 Recommended assignable frequency: 416 kHz.

472 Recommended assignable frequency: 418 kHz.

473 Recommended assignable frequency: 421 kHz.

474 Recommended assignable frequency: 429 kHz.

475 Recommended assignable frequency: 432 kHz.

476 Recommended assignable frequency: 435 kHz.

477 Recommended assignable frequency: 436 kHz.

478 Recommended assignable frequency: 436.5 kHz.

479 Recommended assignable frequency: 438 kHz.

480 Recommended assignable frequency: 439 kHz.

481 Recommended assignable frequency: 440 kHz.

482 Recommended assignable frequency: 441 kHz.

483 Recommended assignable frequency: 442 kHz.

484 Recommended assignable frequency: 443 kHz.

485 Recommended assignable frequency: 444 kHz.

486 Recommended assignable frequency: 445 kHz.

487 Recommended assignable frequency: 447 kHz.

488 Recommended assignable frequency: 449 kHz.

489 Recommended assignable frequency: 450 kHz.

490 Recommended assignable frequency: 451 kHz.

491 Recommended assignable frequency: 452 kHz.

492 Recommended assignable frequency: 453 kHz.

493 Recommended assignable frequency: 454 kHz.

494 Recommended assignable frequency: 455 kHz.

495	Recommended assignable frequency:	456	kHz.
496	Recommended assignable frequency:	457	kHz.
497	Recommended assignable frequency:	458	kHz.
498	Recommended assignable frequency:	460	kHz.
499	Recommended assignable frequency:	461	kHz.
500	Recommended assignable frequency:	490	kHz.
501	Recommended assignable frequency:	511	kHz.
502	Recommended assignable frequency:	513	kHz.
503	Recommended assignable frequency:	514	kHz.
504	Recommended assignable frequency:	516	kHz.
505	Recommended assignable frequency:	517	kHz.
506	Recommended assignable frequency:	518	kHz.
507	Recommended assignable frequency:	519	kHz.
508	Recommended assignable frequency:	520	kHz.
509	Recommended assignable frequency:	521	kHz.
510	Recommended assignable frequency:	522	kHz.
511	Recommended assignable frequency:	524	kHz.
512	Recommended assignable frequency:	525	kHz.
513	Recommended assignable frequency:	526	kHz.
514	Recommended assignable frequency:	1 607.5	kHz.
515	Recommended assignable frequency:	1 611.5	kHz.
516	Recommended assignable frequency:	1 615	kHz.
517	Recommended assignable frequency:	1 620.5	kHz.
518	Recommended assignable frequency:	1 623.5	kHz.
519	Recommended assignable frequency:	1 635	kHz.
520	Recommended assignable frequency:	1 644	kHz.
521	Recommended assignable frequency:	1 686	kHz.
522	Recommended assignable frequency:	1 689	kHz.

523 Recommended assignable frequency: 1 692 kHz.

524 Recommended assignable frequency: 1 698 kHz.

525 Recommended assignable frequency: 1 710 kHz.

526 Recommended assignable frequency: 1 716 kHz.

527 Recommended assignable frequency: 1 728 kHz.

528 Recommended assignable frequency: 1 770 kHz.

529 Requirement coordinated with BUL, ROU and TUR.

629 Proposed frequency: 416 kHz.

630 Proposed frequency: 418 kHz.

631 Proposed frequency: 421 kHz.

632 Proposed frequency: 429 kHz.

633 Proposed frequency: 432 kHz.

634 Proposed frequency: 435 kHz.

635 Proposed frequency: 436 kHz.

636 Proposed frequency: 437 kHz.

637 Proposed frequency: 438 kHz.

638 Proposed frequency: 439 kHz.

639 Proposed frequency: 440 kHz.

640 Proposed frequency: 441 kHz.

641 Proposed frequency: 442 kHz.

642 Proposed frequency: 443 kHz.

643 Proposed frequency: 444 kHz.

644 Proposed frequency: 445 kHz.

645 Proposed frequency: 446 kHz.

646 Proposed frequency: 447 kHz.

647 Proposed frequency: 448 kHz.

648 Proposed frequency: 449 kHz.

649 Proposed frequency: 450 kHz.

650	Proposed frequency:	451	kHz.
651	Proposed frequency:	452	kHz.
652	Proposed frequency:	453	kHz.
653	Proposed frequency:	454	kHz.
654	Proposed frequency:	455	kHz.
655	Proposed frequency:	456	kHz.
656	Proposed frequency:	457	kHz.
657	Proposed frequency:	458	kHz.
658	Proposed frequency:	459	kHz.
659	Proposed frequency:	460	kHz.
660	Proposed frequency:	461	kHz.
661	Proposed frequency:	490	kHz.
662	Proposed frequency:	510.5	kHz.
663	Proposed frequency:	511	kHz.
664	Proposed frequency:	513	kHz.
665	Proposed frequency:	514	kHz.
666	Proposed frequency:	516	kHz.
667	Proposed frequency:	517	kHz.
668	Proposed frequency:	518	kHz.
669	Proposed frequency:	519	kHz.
670	Proposed frequency:	520	kHz.
671	Proposed frequency:	521	kHz.
672	Proposed frequency:	522	kHz.
673	Proposed frequency:	523	kHz.
674	Proposed frequency:	524	kHz.
675	Proposed frequency:	525	kHz.
676	Proposed frequency:	526	kHz.
677	Proposed frequency:	1 607	kHz.

678 Proposed frequency: 1 608 kHz.

679 Proposed frequency: 1 609.5 kHz.

680 Proposed frequency: 1 610 kHz.

681 Proposed frequency: 1 611 kHz.

682 Proposed frequency: 1 612 kHz.

683 Proposed frequency: 1 612.5 kHz.

684 Proposed frequency: 1 613 kHz.

685 Proposed frequency: 1 613.5 kHz.

686 Proposed frequency: 1 614 kHz.

687 Proposed frequency: 1 614.5 kHz.

688 Proposed frequency: 1 616 kHz.

689 Proposed frequency: 1 616.5 kHz.

690 Proposed frequency: 1 617 kHz.

691 Proposed frequency: 1 617.5 kHz.

692 Proposed frequency: 1 618 kHz.

693 Proposed frequency: 1 619 kHz.

694 Proposed frequency: 1 619.5 kHz.

695 Proposed frequency: 1 620 kHz.

696 Proposed frequency: 1 621 kHz.

697 Proposed frequency: 1 621.5 kHz.

698 Proposed frequency: 1 622 kHz.

699 Proposed frequency: 1 622.5 kHz.

700 Proposed frequency: 1 623 kHz.

701 Proposed frequency: 1 624 kHz.

702 Proposed frequency: 1 624.5 kHz.

703 Proposed frequency: 1 635 kHz.

704 Proposed frequency: 1 638 kHz.

705 Proposed frequency: 1 641 kHz.

706 Proposed frequency: 1 647 kHz.

707 Proposed frequency: 1 650 kHz.

708 Proposed frequency: 1 653 kHz.

709 Proposed frequency: 1 656 kHz.

710 Proposed frequency: 1 662 kHz.

711 Proposed frequency: 1 665 kHz.

712 Proposed frequency: 1 668 kHz.

713 Proposed frequency: 1 671 kHz.

714 Proposed frequency: 1 674 kHz.

715 Proposed frequency: 1 677 kHz.

716 Proposed frequency: 1 680 kHz.

717 Proposed frequency: 1 683 kHz.

718 Proposed frequency: 1 686 kHz.

719 Proposed frequency: 1 689 kHz.

720 Proposed frequency: 1 692 kHz.

721 Proposed frequency: 1 695 kHz.

722 Proposed frequency: 1 701 kHz.

723 Proposed frequency: 1 704 kHz.

724 Proposed frequency: 1 707 kHz.

725 Proposed frequency: 1 710 kHz.

726 Proposed frequency: 1 713 kHz.

727 Proposed frequency: 1 716 kHz.

728 Proposed frequency: 1 719 kHz.

729 Proposed frequency: 1 722 kHz.

730 Proposed frequency: 1 725 kHz.

731 Proposed frequency: 1 731 kHz.

732 Proposed frequency: 1 734 kHz.

733 Proposed frequency: 1 737 kHz.

734 Proposed frequency: 1 740 kHz.

735 Proposed frequency: 1 743 kHz.

736 Proposed frequency: 1 746 kHz.

737 Proposed frequency: 1 749 kHz.

738 Proposed frequency: 1 755 kHz.

739 Proposed frequency: 1 758 kHz.

740 Proposed frequency: 1 761 kHz.

741 Proposed frequency: 1 764 kHz.

742 Proposed frequency: 1 767 kHz.

743 Proposed frequency: 1 773 kHz.

744 Proposed frequency: 1 776 kHz.

745 Proposed frequency: 1 779 kHz.

746 Proposed frequency: 1 782 kHz.

747 Proposed frequency: 1 785 kHz.

748 Proposed frequency: 1 788 kHz.

749 Proposed frequency: 1 794 kHz.

750 Proposed frequency: 1 797 kHz.

751 Proposed frequency: 1 644 kHz.

752 a) Proposed frequency: 518 kHz.
b) Requirement coordinated with NOR, S, FNL.

753 a) Proposed frequency: 518 kHz.
b) Requirement coordinated with NOR.

754 a) Proposed frequency: 518 kHz.
b) Requirement coordinated with S, FNL, NOR, DNK, POL.

1135 a) Aeronautical radionavigation (aeronautical radiobeacon) requirement in the frequency band 415 - 435 kHz.
The United Kingdom does not have any requirements for aeronautical radiobeacons in the frequency band 505 - 526.5 kHz where the aeronautical radionavigation service is the permitted service.
The emission is 100HN0N and 850HA2A and the power will be in accordance with RR2854, RR2855 and RR2856.
b) ICAO: 415 kHz.

1136 ICAO: 420 kHz. See also item a) of Remark No. 1135.

1137 ICAO: 426 kHz. See also item a) of Remark No. 1135.

1138 ICAO: 420 kHz. See also item a) of Remark No. 1135.

1139 ICAO: 430 kHz. See also item a) of Remark No. 1135.

1140 ICAO: 417 kHz. See also item a) of Remark No. 1135.

1141 ICAO: 427 kHz. See also item a) of Remark No. 1135.

1142 ICAO: 415 kHz. See also item a) of Remark No. 1135.

1143 ICAO: 433 kHz. See also item a) of Remark No. 1135.

1144 ICAO: 417 kHz. See also item a) of Remark No. 1135.

1145 ICAO: 421 kHz. See also item a) of Remark No. 1135.

1146 ICAO: 434 kHz. See also item a) of Remark No. 1135.

1147 ICAO: 432 kHz. See also item a) of Remark No. 1135.

1148 ICAO: 417 kHz. See also item a) of Remark No. 1135.

1149 ICAO: 426 kHz. See also item a) of Remark No. 1135.

1150 ICAO: 426 kHz. See also item a) of Remark No. 1135.

1151 ICAO: 416 kHz. See also item a) of Remark No. 1135.

1152 ICAO: 430 kHz. See also item a) of Remark No. 1135.

1153 ICAO: 426 kHz. See also item a) of Remark No. 1135.

1154 ICAO: 428 kHz. See also item a) of Remark No. 1135.

1155 ICAO: 426 kHz. See also item a) of Remark No. 1135.

1156 ICAO: 431 kHz. See also item a) of Remark No. 1135.

1157 ICAO: 423 kHz. See also item a) of Remark No. 1135.

1158 ICAO: 428 kHz. See also item a) of Remark No. 1135.

1159 ICAO: 419 kHz. See also item a) of Remark No. 1135.

1160 ICAO: 425 kHz. See also item a) of Remark No. 1135.

1161 ICAO: 420 kHz. See also item a) of Remark No. 1135.

1162 ICAO: 430 kHz. See also item a) of Remark No. 1135.

1163 ICAO: 417 kHz. See also item a) of Remark No. 1135.

1164 ICAO: 430 kHz. See also item a) of Remark No. 1135.

1165 ICAO: 426 kHz. See also item a) of Remark No. 1135.

1166 ICAO: 415 kHz. See also item a) of Remark No. 1135.

1167 ICAO: 417 kHz.

1168 ICAO: 419 kHz.

1169 ICAO: 415 kHz.

1170 ICAO: 416 kHz.

1171 ICAO: 426 kHz.

1172 ICAO: 418 kHz.

1173 ICAO: 421 kHz.

1174 ICAO: 420 kHz.

1175 ICAO: 425 kHz.

1176 ICAO: 428 kHz.

1190 Designation of emission: 2K40A2A and NON.

1191 ICAO: 415 kHz.

1192 ICAO: 417 kHz.

1193 ICAO: 422 kHz.

1194 ICAO: 432 kHz.

1212 ICAO: 420 kHz.

1213 ICAO: 429 kHz.

1214 ICAO: 427 kHz.

1215 ICAO: 431 kHz.

1216 ICAO: 418 kHz.

1217 ICAO: 422 kHz.

1218 ICAO: 424 kHz.

1219 ICAO: 426 kHz.

1220 ICAO: 431 kHz.

1221 ICAO: 418 kHz.

1222 ICAO: 420 kHz.

1227 a) The bandwidth is not specified because the Portuguese Administration may need to use a higher bandwidth (1K50F1B) than the one currently specified (304HF1B) for certain stations.

b) The identical forms (same station) refer to several frequency requests for the same station, with the exception of the six forms concerning the LISBOA, MADEIRA and S. MIGUEL stations for which one common frequency is required for Morse emissions and another common frequency for DSC emissions.

The following table summarizes the forms sent, except for those concerning telephony:

Station	Number of frequencies needed: 415 - 526.5 kHz			1 606.5 - 1 625 kHz	
	Morse	NBDP	DSC	NBDP	DSC
Monsanto	2	2	1	1	1
Apulia	1	1	-	-	-
Sagres	1	1	-	-	-
Horta	2	2	1	1	1
P. Santo	1	1	1	-	1
Lisboa	1+1*	3	1+1*		
Madeira	1+1*	1	1*		
S. Miguel	1+1*	1	1*		

1* - same frequency for all three stations.

1228 Same frequency as S. MIGUEL and MADEIRA. See also Remark No. 1227.

1229 The frequency 1 620.0 kHz already assigned can be retained. See also Remark No. 1227.

1230 Same frequency as LISBOA and MADEIRA. See also Remark No. 1227.

1231 Same frequency as LISBOA and S. MIGUEL. See also Remark No. 1227.

1232 Common frequency.

1233 ICAO: 415 kHz.

1234 ICAO: 416.5 kHz.

1235 ICAO: 417 kHz.

1236 ICAO: 419 kHz.

1237 ICAO: 420 kHz.

1238 ICAO: 421 kHz.

1239 ICAO: 422 kHz.

1240 ICAO: 423 kHz.

1241 ICAO: 425 kHz.

1242 ICAO: 426 kHz.

1243 ICAO: 426.5 kHz.

1244 ICAO: 427 kHz.

1245 ICAO: 428 kHz.

1246 ICAO: 429 kHz.

1247 ICAO: 430 kHz.

1248 ICAO: 431 kHz.

1249 ICAO: 432 kHz.

1250 ICAO: 435 kHz.

1251 ICAO: 514 kHz.

1252 ICAO: 520 kHz.

1253 ICAO: 526 kHz.

1260 Need one frequency from the band 415 - 435 kHz or 435 - 526.5 kHz.
Need one frequency from the band 1 606.5 - 1 625 kHz or 1 635 - 1 800 kHz.
Need one frequency from the band 2 045 - 2 160 kHz.

1261 Need one frequency from the band 415 - 435 kHz or 505 - 526.5 kHz.

1265 a) Frequency 472 kHz to be replaced:
- must be replaced by a round figure kHz frequency;
- still appears in bold type in the List of Coast Stations (under COMORES - Dzaoudzi).

b) Mode of operation: D and S.

c) Designation of emission: 304HF1B and 100HA1A.

1266 a) Frequency 487 kHz to be replaced:
- must be replaced by a round figure kHz frequency;
- handles heavy traffic: traffic frequency is bold type in the List of Coast Stations.

b) Mode of operation: D and S.

c) Designation of emission: 304HF1B and 100HA1A.

1267 The use of several fairly close frequencies together on the same site may cause problems.

1268 a) Frequency 450 kHz to be replaced:
- interferes with broadcast reception (see Appendix 1 to Res. No. 704 - MOB-83 - Note to point 1 - b);
- must be replaced by a round figure kHz frequency;
- carries heavy traffic: traffic frequency in bold type in the List of Coast Stations.

b) Mode of operation: D and S.

c) Designation of emission: 304HF1B and 100HA1A.

1269 a) The frequencies to be replaced are:
- 429 kHz notified CALAIS and DIEPPE;
- 472 kHz notified DUNKERQUE;
- the frequency 429 kHz is situated in the 415 - 435 kHz band where the maritime mobile service is "permitted" but cannot be retained because the French Administration considers that, given the transmitter power, its retention in this band would be too harmful for the "primary" aeronautical radionavigation service.

b) Mode of operation: D and S.
c) Designation of emission: 304HF1B and 100HA1A.

1270 a) Frequency 416 kHz to be replaced:
- is situated in the 415 - 435 kHz band where the maritime mobile service is "permitted" but cannot be retained because the French Administration considers that, given the transmitter power, its retention in this band would be too harmful for the "primary" aeronautical radionavigation service;
- must be replaced by a round figure kHz frequency;
- appears in the List of Coast Stations.

b) Mode of operation: D and S.
c) Designation of emission: 304HF1B and 100HA1A.

1271 a) Frequency 487 kHz to be replaced:
- must be replaced by a round figure kHz frequency;
- carries heavy traffic: traffic frequency in bold type in the List of Coast Stations.

b) Mode of operation: D and S.
c) Designation of emission: 304HF1B and 100HA1A.

1272 a) The frequencies to be replaced are:
- 421 kHz notified AGDE;
- 461 kHz notified ARCACHON;
- frequency 421 kHz notified AGDE (5 kW) is used in ARCACHON, as frequency 461 kHz notified ARCACHON was interfering with broadcast reception (see Appendix 1 to Res. No. 704 - MOB-83 - Note to point 1 - b), and cannot therefore be retained;
- frequency 421 kHz carries heavy traffic: traffic frequency in bold type in the List of Coast Stations.

b) Mode of operation: D and S.
c) Designation of emission: 304HF1B and 100HA1A.

1273 a) Frequency 432 kHz to be replaced:
- is situated in the 415 - 435 kHz band where the maritime mobile service is "permitted" but cannot be retained because the French Administration considers that, given the transmitter power, its retention in this band would be too harmful for the "primary" aeronautical radionavigation service;
- must be replaced by a round figure kHz frequency;
- carries heavy traffic: traffic frequency in bold type in the List of Coast Stations.

b) Mode of operation: D and S.
c) Designation of emission: 304HF1B and 100HA1A.

1274 b) Mode of operation: D and S.
c) Designation of emission: 304HF1B and 100HA1A.

1275 NOC requested.

1276 - Frequency 1 693.40 kHz is requested to replace frequencies 1 692.40 kHz and 1 695.4 kHz.
- Frequency 1 695.40 kHz is the only frequency for BOULOGNE in the List of Coast Stations.

1277 - Frequencies 1 671.40 kHz and 1 674.40 kHz are notified CONCARNEAU, DIEPPE, DOUARNENEZ, LORIENT.
- Frequency 1 672.40 kHz is requested to replace frequencies 1 671.40 kHz and 1 674.40 kHz.
- Frequency 1 674.40 kHz is the only frequency for LE CONQUET in the List of Coast Stations.

1278 The replacement frequency will carry very heavy traffic.
Frequency 1 807.40 kHz to be replaced appears in bold type in the List of Coast Stations.

1279 - Frequencies 1 671.40 kHz and 1 674.40 kHz are notified CONCARNEAU, DIEPPE, DOUARNENEZ, LORIENT.
- Frequency 1 672.40 kHz is requested to replace frequencies 1 671.40 kHz and 1 674.40 kHz.
- Frequency 1 674.40 kHz is the only frequency for LE CONQUET in the List of Coast Stations (SAINT MALO station is operated by remote control from LE CONQUET).

1280 - Frequencies 1 804.40 kHz and 1 807.40 kHz are notified LE CONQUET (QUIMPERLE station is operated by remote control from LE CONQUET).

1281 - Frequencies 1 671.40 kHz and 1 674.40 kHz are notified CONCARNEAU, DOUARNENEZ, LORIENT.
- Frequency 1 672.40 kHz is requested to replace frequencies 1 671.40 kHz and 1 674.40 kHz.
- Frequency 1 674.40 kHz is the only frequency for LE CONQUET in the List of Coast Stations (QUIMPERLE station is operated by remote control from LE CONQUET).

1282 - It is requested that frequency 1 723.40 kHz be retained at SAINT-NAZAIRE where it is in use, although frequencies 1 720.40 kHz and 1 723.40 kHz are notified CANCALE, PAIMPOL, SABLES D'OLONNES, YEU.
- Frequency 1 723.40 kHz appears for SAINT-NAZAIRE in the List of Coast Stations.

1283 - Frequency 1 687.40 kHz is requested to replace frequencies 1 688.400 kHz and 1 685.400 kHz.
- Will carry heavy traffic: appears in bold type in the List of Coast Stations.

1284 - The replaced frequencies 1 821.40 kHz and 1 818.40 kHz are notified SAINT JEAN DE LUZ.
- Frequency 1 821.40 kHz appears for ARCACHON in the List of Coast Stations.

1285 - The replaced frequencies 1 832.40 kHz and 1 835.40 kHz are notified AGDE.
- Frequency 1 835.40 kHz appears for GRASSE in the List of Coast Stations.

1286 - Frequencies 1 769.400 kHz and 1 772,400 kHz are notified DIEPPE, ETEL, GRAVELINES, PORT EN BESSIN.
- Frequency 1 771.400 kHz is requested to replace frequencies 1 769.400 kHz and 1 772,400 kHz.
- Will carry heavy traffic: appears in bold type in the List of Coast Stations.
- The associated frequency for duplex operation will be chosen by the French Administration in accordance with other RR provisions.

1288 Designation of emission: 304HF1BBN and 100HA1AAN.

1289 Request for frequency between 1 607 and 1 624.5 kHz.

1290 a) Request for frequency between 1 607 and 1 624.5 kHz.
b) Designation of emission: 304HF1B and 100HA1A.

1291 Designation of emission: 304HF1BBN and 100HA1AAN. See also Remark No. 1267.

1300 a) For each requirement containing a specific frequency in use, the power actually supplied to the antenna is entered in box 11 (power).
b) The Administration of Greece takes this opportunity to raise the question of wideband telegraphy equipment, already operating in the bands of Resolution N° 704 (which the current Radio Regulations do not explicitly exclude from use by wideband telegraphy). In Greece there are no plans for phasing out such equipment in the near future and to the knowledge of the Administration of Greece, this is true for other countries in Region 1 as well. The Administration of Greece thinks that a study of this question by IFRB staff might be of help to the Conference. The Administration of Greece has not included any requirement of wideband telegraphy.

1301 Frequency: 417 kHz.

1302 Frequency: 429 kHz.

1303 Frequency: 415 kHz.

1304 Frequency: 434 kHz.

1305 Frequency: 433 kHz.

1306 Frequency: 428 kHz.

1307 Frequency: 517 kHz.

1308 Frequency: 427 kHz.

1309 Frequency: 506 kHz.

1310 Frequency: 422 kHz.

1311 Frequency: 430 kHz.

1312 Frequency: 525 kHz.

1313 Frequency: 419 kHz.

1314 Hours of operation: 0715 - 0730
0915 - 0930
1115 - 1130
1315 - 1330
1515 - 1530
1715 - 1730
1915 - 1930.

1315 Designation of emission: 100HA1A and 100HA2A.

1317 Designation of emission: 2K70J3E and 2K70H3E.

1318 In the band 1 607 - 1 624.5 kHz.

1319 In the band 1 635 - 1 797 kHz.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Addendum 1 to
Document 15-E
15 February 1985
Original: English

PLENARY MEETING

Norway, Sweden

Please add the following footnote to § 2.8.2 (page 8 in the English version):

"** On channels with day-time protection only, the field strength from the wanted as well as from unwanted coast stations shall be calculated using ground-wave propagation curves.

It is recognized that a coast station with the right to day-time protection only may cause harmful inteference by the sky-wave to the service of another coast station which has the right to day- and night-time protection. Such a case will have to be solved by operational restrictions at the "day-time" station."

A reference double asterisk should be added at the end of the third inset.

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 15-E
10 December 1984
Original: English

PLENARY MEETING

Norway, Sweden

PROPOSALS FOR THE WORK OF THE CONFERENCE

1 INTRODUCTION

In this document some basic parameters and principles are suggested for the frequency planning for the maritime mobile service and the aeronautical radionavigation service in the parts of the MF band to be planned by the RARC for Region 1.

The proposed parameters are based on the values suggested by CCIR Study Group 8 (CCIR Document 8/264 with corrigendum 2, 31 May/4 June 1984) and by ICAO for the aeronautical radionavigation service.

There are, however, some important divergences from the CCIR-values for the maritime mobile service. They concern the minimum usable field strength and the selectivity characteristics (implied in the adjacent channel protection ratio). The values suggested in the CCIR report for morse telegraphy (A1A) are not beeing proposed. Instead we propose to apply the corresponding values of these parameters suggested for narrow-band direct printing (NBDP-F1B). There are two reasons for this, one is that NBDP gradually will replace the use of morse telegraphy, the other is that planning exercises that have been made between certain European Administrations have shown that there is most probably no possiblity to make a successful plan if protection is to be afforded with the values suggested for A1A morse telegraphy.

Also for radiotelegraphy (SSB-J3E) we have found it necessary to diverge slightly from the CCIR report concerning the adjacent channel protection ratio at 6 kHz separation. We propose to use a value which corresponds to an attenuation being approximately 22 dB higher than suggested by the CCIR (80 dB, corresponding to a protection ratio of -60 dB). Also in this case the planning exercises have shown that it will most likely not be possible to satisfy all requirements if too low values are applied for the adjacent channel protection ratio.

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2 MARITIME MOBILE SERVICE

For the frequency planning for the Maritime Mobile Service the following planning criteria are proposed.

2.1 PROPAGATION

NOR/S/15/1 **2.1.1 Ground-wave**

The use of propagation curves according to CCIR Rec 368-4 (sea-water, σ=5 S/m, ε =70, and land, $\sigma = 10^{-2}$ S/ m, ε = 30) is suggested.

NOR/S/15/2 **2.1.2 Sky-wave**

The method described in CCIR Rec 435-4, applied on ϕ = 50°N should be used, see fig. 1. Sea scatter should not be taken into account. Since the curves in CCIR Draft Report AC/6 (Study Group 6) seem too complicated to be applied with a computer-aided planning procedure we propose that the propagation curves in fig. 2 and 3 (Annexes 2 and 3) be used.

2.2 MINIMUM USABLE FIELD STRENGTH

NOR/S/15/3 **Around 500 kHz**

A1A/F1B: 25 dB rel 1 µV/m (for areas north of 30°N)
45 " (for areas south of 30°N)

Note: There are technical reasons for a different value for A1A (Morse telegraphy). However, since a successive transfer from Morse telegraphy (A1A) to narrow-band direct printing (NBDP - F1B) is expected, the planning should be based on the requirements for F1B equipment.

NOR/S/15/4 **Around 2 MHz**

F1B: 16 dB rel 1 µV/m (for areas north of 30°N)
36 "- (for areas south of 30°N)
J3E: 34 "- (for areas north of 30°N)
54 "- (for areas south of 30°N)

2.3 PROTECTION RATIO (wanted to unwanted signal, co-channel)

NOR/S/15/5 **2.3.1 Around 500 kHz**

A1A/F1B: 8 dB

NOR/S/15/6 **2.3.2 Around 2 MHz**

F1B: 8 dB
J3E: 20 "

2.4 ADJACENT CHANNEL PROTECTION RATIO

The following values are proposed for the adjacent channel protection ratio.

NOR/S/15/7 2.4.1 A1A/F1B

At 0.5 kHz separation -38 dB
" 1.0 " -62 "

Note: These values are derived from the receiver selectivity characteristics for NBDP/DSC in the CCIR (Study Group 8) Report, paragraph 2.1.1.4. For 1 kHz separation an attenuation of 70 dB has been anticipated. For A1A (Morse telegraphy) should, from a technical point of view, different values be applied, considerably less stringent. However, since a successive transfer from Morse telegraphy (A1A) to narrow-band direct printing (NBDP-F1B) is expected the planning should be based on the requirements for F1B equipment.

NOR/S/15/8 2.4.2 J3E

At 3 kHz separation: -25 dB
" 6 " " -60 "

NOR/S/15/9 2.5 SERVICE AREA

The area within which the minimum field strength and the protection criteria have to be met.

The normal maximum range should not exceed 400 km from the coast station, and there should be minimum overlap between the service areas of adjacent coast stations.

NOR/S/15/10 2.6 TRANSMITTER POWER OUTPUT

The effective radiated power should be anticipated to be such that the minimum usable field strength is equal to the specified value (2.2) at the rated maximum range.

The transmitter power output (mean power) giving the necessary effective radiated power with the relevant antenna gain should be calculated and the value obtained should be set as limit for the transmitter in question. (Concerning antenna diagrams reference is made to doc 20 (France) to the LF/MF-conference 1975).

2.7 ASSIGNABLE FREQUENCIES

NOR/S/15/11 2.7.1 Around 500 kHz

The frequencies listed in App.1 to Res No 704 for coast transmissions should be paired with frequencies for ship station transmissions in order to operate two frequency channels as follows:

Channel no.	FC tx (kHz)	MS tx (kHz)
1	435.5	475.5
2	436	476
3	436.5	476.5
4	437	477
5	437.5	477.5
6	438	478
7	438.5	478.5
8	439	479
9	439.5	479.5
10	440	461*
11	440.5	480.5
12	441	481
13	441.5	481.5
14	442	482
15	442.5	482.5
16	443	483
17	443.5	483.5
18	444	484
19	444.5	484.5
20	445	485
21	445.5	485.5
22	446	486
23	446.5	486.5
24	447	487
25	447.5	487.5
26	448	488
27	448.5	488.5
28	449	489
29	449.5	489.5
30	510.5	461.5
31	511	462
32	511.5	462.5
33	512.5	463
34	513	463.5
35	513.5	464
36	514	464.5
37	514.5	465
38	515	465.5
39	515.5	466
40	516	466.5

Channel no.	FC tx (kHz)	MS tx (kHz)
41	516.5	467
42	517	467.5
43	519	460.5*
44	519.5	468.5
45	520	469
46	520.5	469.5
47	521	470
48	521.5	470.5
49	522	471
50	522.5	471.5
51	523	472
52	523.5	472.5
53	524	473
54	524.5	473.5
55	525	474
56	525.5	474.5
57	526	475

* The frequncies 460.5 and 461 kHz are proposed to replace the coast station frequencies 468 and 480 kHz in order to protect usage in accordance with No. 4237 of the RR.

2.7.2 Around 2 MHz

NOR/S/15/12 2.7.2.1 F1B transmissions

The frequencies listed in paragraph a) of App 2 to Res. No. 704 for coast station transmissions should be paired with frequencies for ship station transmissions in order to operate two frequency channels as follows:

Channel no.	FC tx (kHz)	MS tx (kHz)
201	1607	2142
202	1607.5	2142.5
203	1608	2143
204	1608.5	2143.5
205	1609	2144
206	1609.5	2144.5
207	1610	2145
208	1610.5	2145.5
209	1611	2146
210	1611.5	2146.5
211	1612	2147
212	1612.5	2147.5
213	1613	2148
214	1613.5	2148.5
215	1614	2149

Channel no.	FC tx (kHz)	MS tx (kHz)
216	1614.5	2149.5
217	1615	2150
218	1615.5	2150.5
219	1616	2151
220	1616.5	2151.5
221	1617	2152
222	1617.5	2152.5
223	1618	2153
224	1618.5	2153.5
225	1619	2154
226	1619.5	2154.5
227	1620	2155
228	1620.5	2155.5
229*	1621	2156
230*	1621.5	2156.5
231*	1622	2157
232*	1622.5	2157.5
233*	1623	2158
234*	1623.5	2158.5
235*	1624	2159
236*	1624.5	2159.5

* Channels 229-236 should be reserved for digital selective calling (DSC).

NOR/S/15/13 2.7.2.2 J3E transmissions

The frequencies listed in paragraph b) of App. 2 to Res. No. 704 for coast station transmissions should be paired with frequencies for ship station transmissions in order to operate two frequency channels as follows:

Channel no.	FC tx (kHz)	MS tx (kHz)
241	1636.4(1635)	2061.4(2060)*
242	1639.4(1638)	2061.4(2060)
243	1642.4(1641)	2064.4(2063)
244	1645.4(1644)	2064.4(2063)
245	1648.4(1647)	2067.4(2066)
246	1651.4(1650)	2067.4(2066)
247	1654.4(1653)	2070.4(2069)
248	1657.4(1656)	2070.4(2069)
249	1660.4(1659)	2073.4(2072)
250	1663.4(1662)	2073.4(2072)

* The frequencies 2046.4(2045), 2049.4(2048), 2052.4(2051), 2055.4(2054) and 2058.4(2057) kHz as listed in Res. 704, App.2 have not been proposed to be available for planning in order to protect usage in accordance with Nos. 4358-4364 of the RR.

Channel no.	FC tx (kHz)	MS tx (kHz)
251	1666.4(1665)	2076.4(2075)
252	1669.4(1668)	2076.4(2075)
253	1672.4(1671)	2079.4(2078)
254	1675.4(1674)	2079.4(2078)
255	1678.4(1677)	2082.4(2081)
256	1681.4(1680)	2082.4(2081)
257	1684.4(1683)	2085.4(2084)
258	1687.4(1686)	2085.4(2084)
259	1690.4(1689)	2088.4(2087)
260	1693.4(1692)	2088.4(2087)
261	1696.4(1695)	2091.4(2090)
262	1699.4(1698)	2091.4(2090)
263	1702.4(1701)	2094.4(2093)
264	1705.4(1704)	2094.4(2093)
265	1708.4(1707)	2097.4(2096)
266	1711.4(1710)	2097.4(2096)
267	1714.4(1713)	2100.4(2099)
268	1717.4(1716)	2100.4(2099)
269	1720.4(1719)	2103.4(2102)
270	1723.4(1722)	2103.4(2102)
271	1726.4(1725)	2106.4(2105)
272	1729.4(1728)	2106.4(2105)
273	1732.4(1731)	2109.4(2108)
274	1735.4(1734)	2109.4(2108)
275	1738.4(1737)	2112.4(2111)
276	1741.4(1740)	2112.4(2111)
277	1744.4(1743)	2115.4(2114)
278	1747.4(1746)	2115.4(2114)
279	1750.4(1749)	2118.4(2117)
280	1753.4(1752)	2118.4(2117)
281	1756.4(1755)	2121.4(2120)
282	1759.4(1758)	2121.4(2120)
283	1762.4(1761)	2124.4(2123)
284	1765.4(1764)	2124.4(2123)
285	1768.4(1767)	2127.4(2126)
286	1771.4(1770)	2127.4(2126)
287	1774.4(1773)	2130.4(2129)
288	1777.4(1776)	2130.4(2129)
289	1780.4(1779)	2133.4(2132)
290	1783.4(1782)	2133.4(2132)
291	1786.4(1785)	2136.4(2135)
292	1789.4(1788)	2136.4(2135)
293	1792.4(1791)	2139.4(2138)
294	1795.4(1794)	2139.4(2138)
295	1798.4(1797)	2139.4(2138)

2.8 PLANNING PRINCIPLES

NOR/S/15/14 2.8.1 Permitted Services

Planning shall be made with no consideration to assignments to stations of permitted services. Consideration has however to be given to existing assignments to stations of primary services in adjacent areas, e.g. in accordance with No. 483 of the Radio Regulations.

NOR/S/15/15 2.8.2 Satisfaction of requirements

In each of the three plans (A1A/F1B around 500 kHz, F1B around 2 MHz and J3E around 2 MHz) the requirements should be satisfied as follows:

1) One channel (two paired frequencies) per coast station, day- and night-time protection (sky-wave);

2) Additional channels, as far as possible, with day- and night-time protection (sky-wave) to coast stations having or expecting high traffic*;

3) Additional channels with day-time protection only to coast stations having or expecting high traffic*;

4) Additional requirements to be satisfied only with reduced service range or reduced protection as necessary.

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* High traffic should be verified by traffic statistics.

NOR/S/15/16 2.8.3 Additional principles for J3E around 2 MHz

The aim for the planning of frequencies for MF radio telephony (J3E) should be to reorganize the frequency usage in such a way that the assignments will be better protected (both day and night) than the present arrangement. More traffic can then be carried out on each frequency in the bands to be planned by the Conference, i.e. the bands mentioned in App 2 to Res. No. 704.

Existing assignments in the higher bands (App.3 to Res. No 704) should be deleted consequential to assignments beeing made in the Plan for the lower bands.

Those existing assignments in the higher bands that have not been replaced by assignments in the Plan for the lower bands and are still required should be adjusted in accordance with the channelling in App. 3 to Res. No. 704 after the RARC 1985. It is suggested that these adjustments be coordinated bilaterally or multilaterally at sub-regional meetings.

3 AERONAUTICAL RADIONAVIGATION SERVICE

For the frequency planning for the Aeronautical Radionavigation Service the following planning criteria are proposed.

NOR/S/15/17 **3.1 PROPAGATION**

The use of ground-wave propagation curves according to CCIR Rec 368-4 (sea-water, σ=5 S/m, ε=70, and land, $\sigma=10^{-2}$ S/m, ε =30) is suggested (see also CCIR Draft Report AC/6 (Study Group 6)).

NOR/S/15/18 **3.2 MINIMUM USABLE FIELD STRENGTH**

37 dB rel 1μV/m for beacons north of 30° and south of 30° S
41.6 dB rel 1μV/m for beacons between 30°N and 30°S (RR 2857).

NOR/S/15/19 **3.3 PROTECTION RATIO (wanted to unwanted signal, co-channel)**

15 dB (RR 2854)

Note: This protection ratio is only required in day-time conditions.

NOR/S/15/20 **3.4 ADJACENT CHANNEL PROTECTION RATIO**

The following values are proposed for the adjacent channel protection ratio.

At 1 kHz	separation	9	dB
" 2	"	-5	"
" 3	"	-20	"
" 4	"	-35	"
" 5	"	-50	"
" 6	"	-65	"

NOR/S/15/21 **3.5 SERVICE AREA**

The area within which the minimum field strength and the protection criteria have to be met.

NOR/S/15/22 **3.6 TRANSMITTER POWER OUTPUT**

The effective radiated power should be anticipated to be such that the minimum usable field strength is equal to the specified value (2.2) at the rated maximum range (RR 2855).

The transmitter power output (mean power) giving the necessary effective radiated power with the relevant antenna gain should be calculated and the value obtained should be set as limit for the transmitter in question.

NOR/S/15/23 **3.7 ASSIGNABLE FREQUENCIES**

The assignable frequencies shall, in general, be integral multiples of 1 kHz.

NOR/S/15/24

RECOMMENDATION No. NOR/S-A

Relating to the Termination of the Use of the Worldwide Maritime Mobile Working Frequency 425 kHz by Ship Stations

The Regional Administrative Radio Conference for Region 1, Geneva, 1985

considering

a) that the World Administrative Radio Conference, Geneva, 1979 allocated the frequency band 415-435 kHz in Region 1 to the Aeronautical Radionavigation service on a primary basis and to the Maritime Mobile service on a permitted basis;

b) that the World Administrative Radio Conference for the Mobile Services, Geneva, 1983 resolved that a Regional Administrative Radio Conference for Region 1 should be convened in 1985 to prepare frequency assignment plans for the Aeronautical Radionavigation service in the frequency bands 415-435 kHz and 505-526.5 kHz, and for the Maritime Mobile service in the frequency bands 415-435 kHz and 435-526.5 kHz;

further considering

c) that the pressure of requirements for aeronautical radiobeacons in the band 415-435 kHz in parts of Region 1 is so high as to necessitate the use of all frequencies in this band in accordance with the primary allocation to the Aeronautical Radionavigation service;

d) that this would not be practicable if the frequency 425 kHz was allowed to continue on a worldwide basis as a ship working frequency for radiotelegraphy in accordance with the permitted allocation to the Maritime Mobile service in this band and with No 4237 of the Radio Regulations;

e) that the revision of No 4237 was not within the agenda for the Regional Administrative Radio Conference for Region 1, Geneva, 1985;

f) the need for the Aeronautical Radionavigation service in Region 1 to have full and early access to the band 415-435 kHz in accordance with the Plan prepared by this Conference;

g) that this Regional Administrative Radio Conference has adopted a frequency assignment plan for the Maritime Mobile service in the band 435-526.5 kHz which has considerably increased the number of channels assignable to ship stations for working purposes using radiotelegraphy;

resolves

1. to invite all administrations to cease to authorise the use of the frequency 425 kHz for ship working purposes in Region 1 on and from the date of coming into effect of the Plan for aeronautical radiobeacons in the band 415-435 kHz (..... 198..);

2. to invite those administrations which consider that an interim replacement is necessary for the frequency 425 kHz in Region 1 pending a revision of No 4237 of the Radio Regulations by the World Administrative Radio Conference planned for 1987, to authorise their stations to use the frequency [450 kHz] as a ship working frequency to supplement those others mentioned in No 4237;

recommends

that the World Administrative Radio Conference planned for 1987 should be authorised to review and revise No 4237 of the Radio Regulations in order to delete the frequency 425 kHz therefrom and, if found operationally necessary, to replace it with a frequency chosen from the sub-band 450-461 kHz;

requests

the Secretary-General to bring this Recommendation to the attention of all administrations;

invites

the Administrative Council to take the necessary steps to place this Recommendation on the agenda of the World Administrative Radio Conference planned for 1987.

Annexes: 3

ANNEX 1

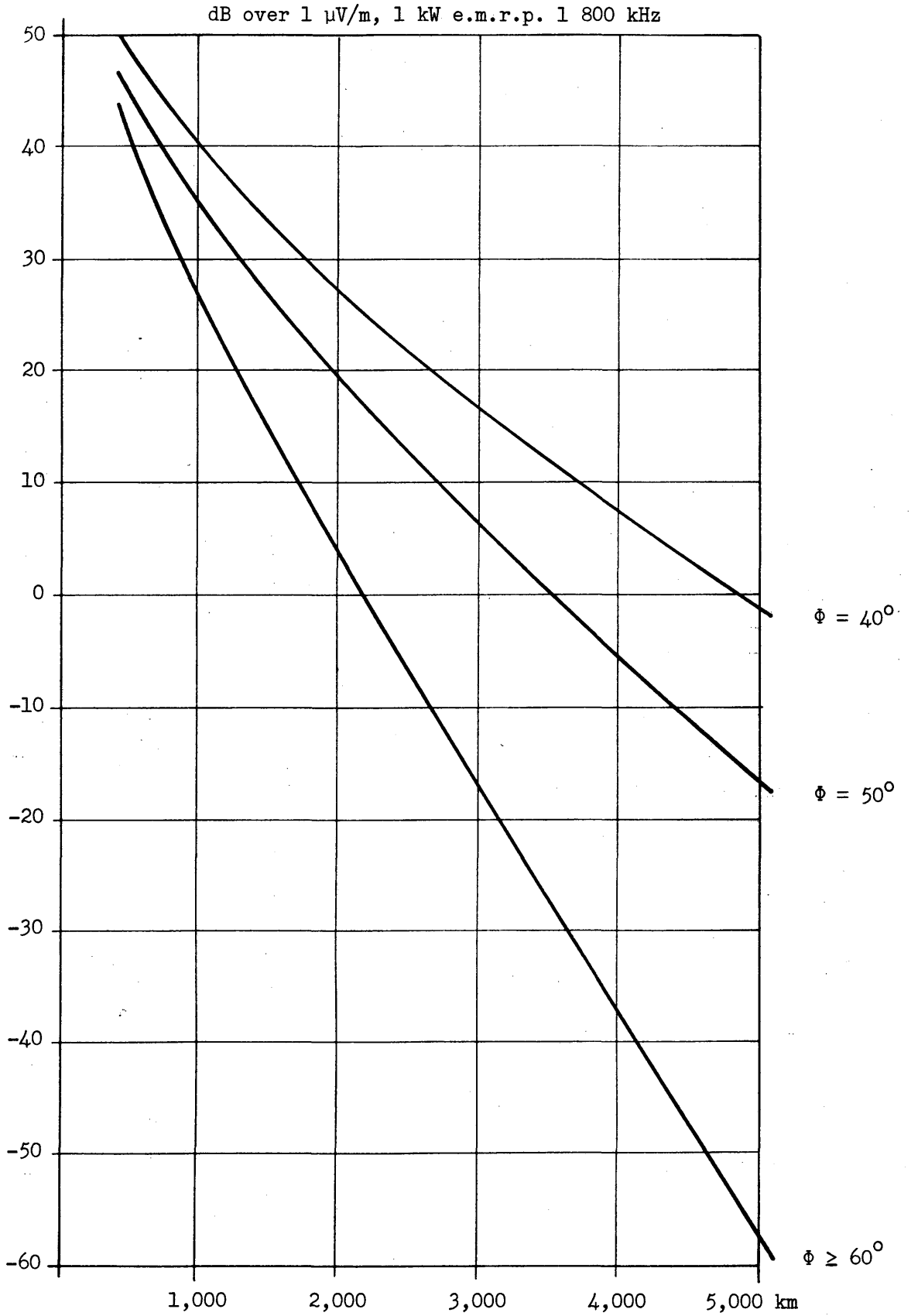

FIGURE 1

Ionospheric field strength for 1 800 kHz (1 600 - 2 400 kHz)

These curves are drawn by using the methods given in CCIR Recommendation No. 435. Φ is the geomagnetic latitude, that is latitude relative to the magnetic north pole.

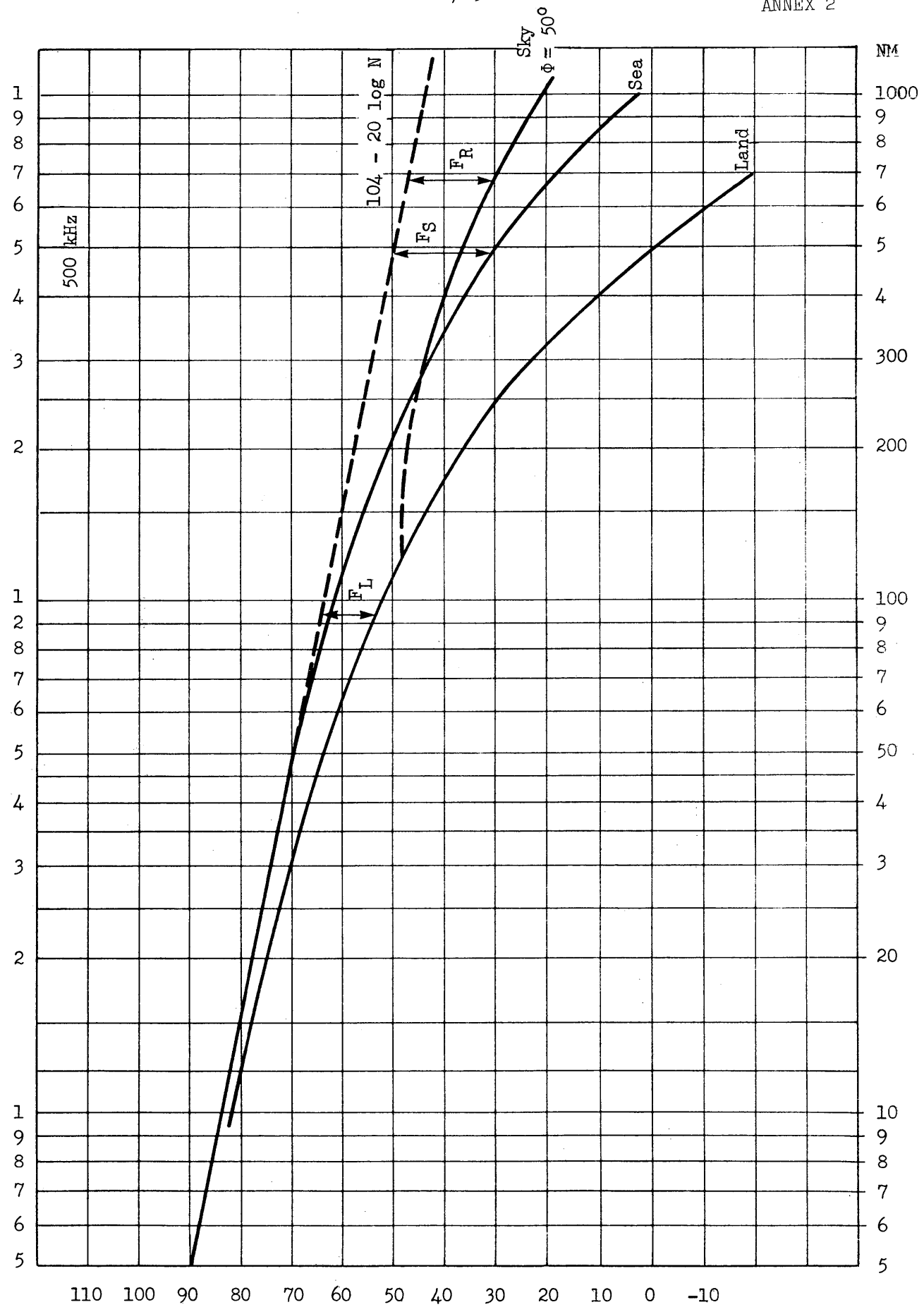

FIGURE 2

Propagation curves
500 kHz

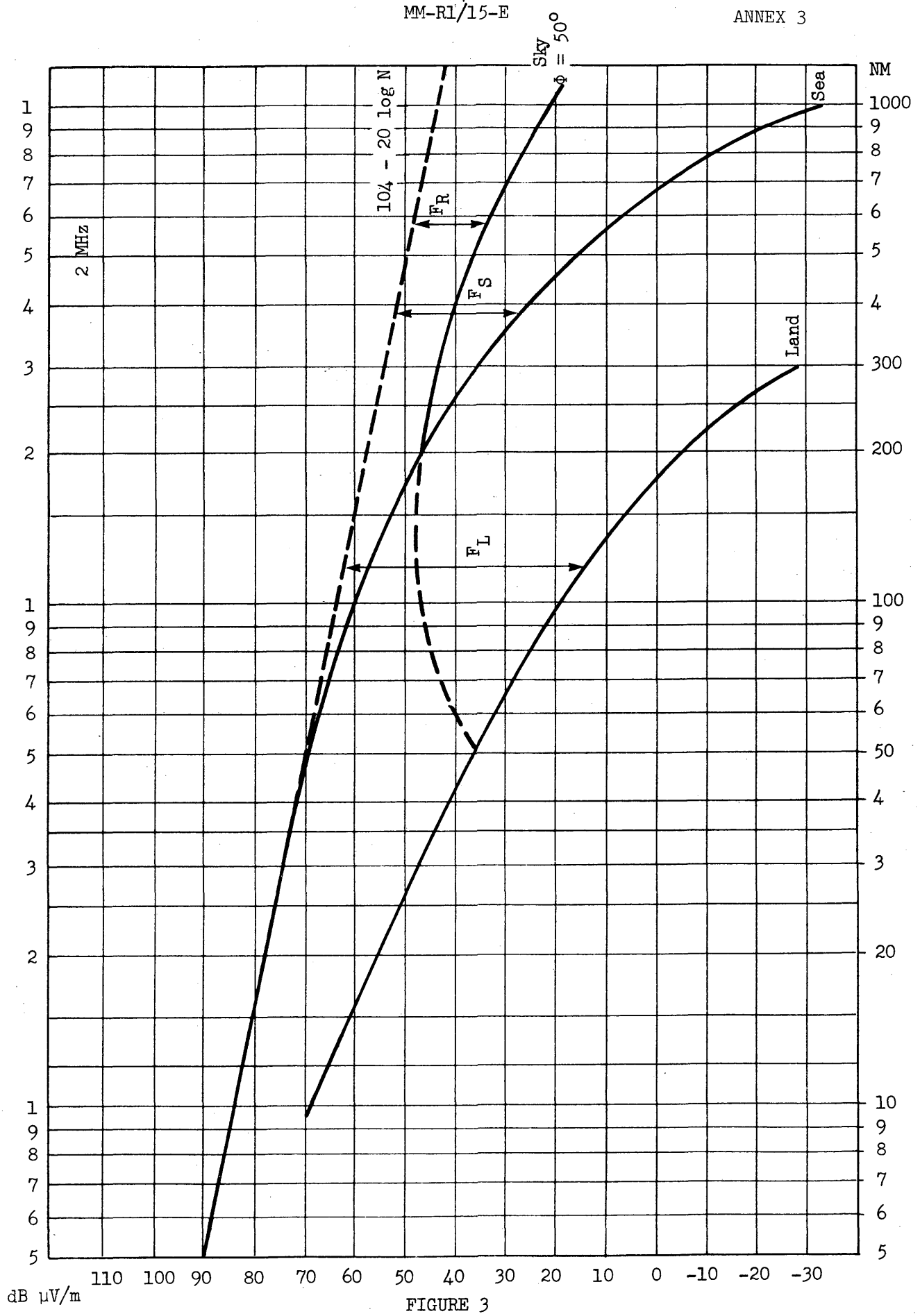

FIGURE 3

Propagation curves
2 MHz

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 16-E
4 December 1984
Original: French

PLENARY MEETING

France

MODIFICATION OF THE PROVISIONS
OF THE RADIO REGULATIONS
(Chapter XI, Article 60, Nos. 4358 to 4364)

The Administration of France considers that it is both desirable and possible to increase the number of frequencies assigned to ship stations in the band planned in paragraph c) of Appendix 2 to Resolution 704 (MOB-83), which, when paired with those assigned to the coast stations covered by paragraph b) of the same Appendix, will provide two-frequency channels for duplex or semi-duplex operation.

To that end, the French Administration considers it necessary to modify the provisions of Nos. 4358 to 4364 of the Radio Regulations with the aim of making it possible to provide 30 two-frequency channels instead of 27 as at present.

Since the present Conference is not competent to deal with this modification, the Administration of France proposes that Recommendation F-A below should be submitted to the World Conference in 1987.

F/16/1

RECOMMENDATION F-A

Modification of the provisions
of the Radio Regulations
(Chapter XI, Article 60, Nos. 4358 to 4364)

The Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service (Geneva, 1985):

I. considering

a) that under the terms of Nos. 4358 to 4364 of the Radio Regulations, stations on ships making international voyages should be able to use, if required by their service:

- the following ship-to-shore working frequencies:

  carrier frequency 2 046 kHz (assigned frequency 2 047.4 kHz) and carrier frequency 2 049 kHz (assigned frequency 2 050.4 kHz) for class R3E and J3E emissions,

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- the following intership frequencies:

  carrier frequency 2 053 kHz (assigned frequency 2 054.4 kHz) and carrier frequency 2 056 kHz (assigned frequency 2 057.4 kHz) for class R3E and J3E emissions;

b) that the four frequencies mentioned above are in the band planned in paragraph c) of Appendix 2 to Resolution 704 (MOB-83) for ship radiotelephone stations, but are offset from the plan frequencies (the first two by +1 kHz, the last two by -1 kHz), which prevents five frequencies in this plan from being paired with those planned in paragraph b) of that Appendix;

c) that the remaining twenty-seven frequencies, through pairing with the frequencies planned for coast stations in paragraph b) of the same Appendix, will provide the only channels available for duplex or semi-duplex operation that this Conference has the authority to assign;

d) that the need for channels that can be used for duplex or semi-duplex operation is considerable and is bound to increase, particularly with the prospect of the establishment of automatic or semi-automatic links;

II. <u>considering further</u>

a) that the two ship-to-shore frequencies and the two intership frequencies for (upper) single-sideband use are derived respectively from the two frequencies 2 049 kHz and 2 056 kHz formerly used by ships for class A3E and H3E emissions up to 1 January 1982;

b) that during the transitional period between 1 April 1969 and 1 January 1982, ship stations essentially used the frequencies 2 049 kHz (assigned frequency 2 050.4 kHz) and 2 056 kHz (assigned frequency 2 057.4 kHz), which are the only ones usable for H3E (upper bands of the former A3E assignment), and continue to use them for R3E and J3E;

c) that ship stations, including those making international voyages, will be able to use the frequencies assigned for reception to each coast station, which will appreciably reduce the demands made on the two ship-to-shore frequencies usable world-wide;

III. <u>considers accordingly</u>

a) that it would be possible, without hindering the maritime mobile service, to revert to the situation existing before the changeover to single-sideband, assigning only one ship-to-shore and one intership frequency to stations on ships making international voyages;

b) that these two frequencies should conform to the plan in paragraph c) of Appendix 2 to Resolution 704, namely:

- ship-to-shore frequency: 2 048 kHz (carrier)/2 049.4 kHz (assigned),

- intership frequency: 2 057 kHz (carrier)/2 058.4 kHz (assigned);

IV. proposes

that a Recommendation should be submitted by this Regional Conference to the World Conference scheduled for 1987, so that action may be taken on the proposals in paragraph III a) and b) above;

V. invites the Administrative Council

to take appropriate steps to ensure that consideration of this Recommendation is placed on the agenda of the World Administrative Conference scheduled for 1987;

VI. requests the Secretary-General

to draw the attention of administrations to this Recommendation;

to communicate this Recommendation to the International Maritime Organization (IMO) and the International Association of Lighthouse Authorities (IALA).

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Corrigendum to
Document 17-E
25 February 1985
Original: French

COMMITTEE 6

France

Considers c) of Document 17-E to be replaced by the following:

c) that the World Conference scheduled for 1987 will be competent to improve the possibilities for the use of the bands allocated to the maritime mobile service, for instance:

- by removing some of the existing constraints, as proposed by France in Documents 13 and 16;

- by deciding on the date of entry into force of the 10 kHz guard band (495 - 505 kHz) for the frequency 500 kHz in accordance with Resolution No. 206 (MOB-83).

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 17-E
16 January 1985
Original: French

PLENARY MEETING

France

DATE OF ENTRY INTO FORCE OF THE FINAL ACTS OF THE CONFERENCE

The French Administration

I. considers

a) that the plan of frequency assignments to stations of the maritime mobile service operating in the band 435 - 526.5 kHz, based on a spacing of 0.5 kHz, will not become usable unrestrictedly until after 1 January 1990 (Resolution No. 704-MOB-83, Appendix 1, section 1);

b) that the exclusive use of the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz by the maritime mobile service is subject to compliance with the provisions of Resolution No. 38, which is proving extremely difficult to apply;

c) that the World Conference scheduled for 1987 will alone be competent to improve the possibilities for the use of certain planned bands allocated exclusively to the maritime mobile service by removing some of the existing constraints, as proposed in Documents 13 and 16.

F/17/1 II. therefore takes the view

that the frequency assignment plans adopted by the Conference should enter into force after 1 January 1990.

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA
GENEVA, MARCH 1985

EUROP.

Document 1009-E
21 January 1985
Original: French

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 18-E
21 January 1985
Original: French

PLENARY MEETING

Note by the Secretary-General

FINAL ACTS OF THE CONFERENCES

Resolution 83 (amended) of the Administrative Council lays down the following with regard to publication of the Final Acts of the conferences or meetings :

E. Publication of the Final Acts of conferences or meetings

18. In principle,the Final Acts of conferences or meetings, whatever their method of reproduction, shall be published by the General Secretariat in their usual place of publication and with the minimum of cost;

19. however, this rule may be disregarded in recognized cases of urgency and at the special request of the conference or meeting;

20. in this connection :

20.1 if a conference or meeting prints, for its own use, documents of which typographical composition can subsequently be used, in whole or in part, for the printing of the Final Acts, it must bear a percentage of the composition costs and the whole of the printing costs of the said document;

20.2 when this is not so, the printing costs of the Final Acts shall, in principe, be posted to the printed matter account, but the conference or meeting may decide, in special circumstances, to subsidize these costs;

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20.3 the percentage of the composition cost mentioned in 20.1 above, or the subsidy mentioned in 20.2 above, shall be decided by the Plenary Meeting of the conference or meeting;

21. apart from the Final Acts distributed to the persons concerned as a conference document, no copy shall be supplied free of charge to participants in the conference or meeting.

It will be possible to use for final printing some of the texts constituting the Final Acts of the two Conferences which will be submitted for signature by Delegations.

It is up to the Plenary Meeting of the two Conferences to determine the percentage of the cost of preparing these texts to be charged to the budget of the two Conferences and the supplementary publications budget respectively.

The budget of the two Conferences makes provision in Article V, item 20.451, for one third of the cost of preparing the manuscripts estimated at 63,000 Swiss francs, i.e. 21,000 Swiss francs, to be charged to the two Conferences accounts.

It is agreed that the printing costs of the different readings of the Final Acts during the two Conferences as well as the translation cost into Russian and Arabic will be entirely charged to the two Conferences.

The Budget Control Committee is requested to submit a proposal to the Plenary Meeting on this matter.

R.E. BUTLER
Secretary-General

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA
GENEVA, MARCH 1985

EUROP.

Document 1010-E
21 January 1985
Original: French

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 19-E
21 January 1985
Original: French

PLENARY MEETING

Note by the Secretary-General

BUDGET OF THE

REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

AND OF THE

REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA

The Administrative Council has decided to convene in 1985 concurrently in Geneva :

- The Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in Certain Parts of the MF Band in Region 1 (25 February to 15 March 1985) (MM-R1)

- The Regional Administrative Radio Conference for the Planning of Frequencies for Maritime Radiobeacons in the European Maritime Area (4 to 13 March 1985) (EMA).

Since these two Conferences are held concurrently in Geneva, the related secretariat staff requirements have been grouped in order to obtain greater efficiency and lower costs than if the Conferences had been held separately.

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

The budget of these two Conferences, based on a single meeting in Geneva from 25 February to 15 March 1985, as approved by the Administrative Council of the Union at its 39th Session (1984), is annexed hereto for the information of the Budget Control Committee.

The costs of this meeting will be allocated as follows :

2/3 to be charged to the RARC MM-R1
1/3 to be charged to the RARC EMA

It is emphasized that the estimated expenditure of these regional Conferences do not form part of the ordinary budget of the Union. Under No. 115 of Article 15 of the International Telecommunication Convention, Nairobi, 1982, expenses shall be borne by Members of Region 1 in the case of the RARC MM-R1 and by Members of the European Maritime Area in the case of RARC EMA, in accordance with their unit classification, and, on the same basis, by any Members of other Regions which would have participated to these two Conferences.

R.E. BUTLER
Secretary-General

Annex : 1

ANNEX

Section 20.4 Regional Administrative Conferences MM-R1 and EMA Items		Budget 1985 - Swiss francs -
Subhead I	Staff expenses	
20.401	Salaries and related expenses of the conference secretariat staff	968,000
20.402	Salaries and related expenses of the translation, typing and reproduction services staff	508,000
20.403	Travel (recruitement)	80,000
20.403	Insurance	77,000
		1,633,000
Subhead II	Travel expenses	-
Subhead III	Premises and equipment	
20.431	Premises, furniture, machines	32,000
20.432	Document production	142,000
20.433	Office supplies and overheads	20,000
20.434	Postage, telephone calls, telegrams	30,000
20.435	Technical installations	5,000
20.436	Sundry and unforeseen	10,000
		239,000
Subhead IV	Other expenses	
20.441	Interest credited to the ordinary budget	35,000
Subhead V	Final Acts	
20.451	Final Acts of the two Conferences	86,000
	Total, Section 20.4	1,993,000

No.	Section 20.4 Regional Administrative Conferences MM-R1 and EMA	Budget 1985 - Swiss francs -

Salaries and related expenses of the conference secretariat staff

It has been foreseen that for the proper functioning of the Conference it would be necessary to set up a secretariat comprising the staff shown in the table below (for language service, typing and reprography services and draughtsmen, see following page).

	Work before and after the Conference		Work during the Conference		
	Days	Sw. frs.	Number	Days	Sw. frs.
Chairman's secretary	10	1,790	2	29	5,191
Executive Secretariat	60	9,060	2	38	5,738
Common services					
- Interpretation (3 teams/4 teams)	-	-	56	938	562,000
- Minute-writers	100	28,440	18	338	94,553
- Language reference service	63	10,353	3	57	9,367
- Meeting room service	10	1,350	2	38	5,130
- Registration of delegates	14	1,806	2	38	4,902
- Documents control	14	2,191	3	57	8,284
- Documents distribution	-	-	6	114	11,552
- Messengers	7	861	9	190	17,993
- Security guards	-	-	4	76	7,904
- Telephonists	-	-	2	38	4,256
- Sick bay	-	-	1	19	2,565
Personnel/Finance	90	12,150	2	38	5,130
Editorial Committee	-	-	4	48	10,248
Additional staff CCIR/IFRB	-	20,000	-	-	20,000
Additional staff GS	-	20,000	-	-	20,000
		108,001			794,813
Provision for payment of overtime to General Services staff		15,000			50,000
Total		123,001			844,813
Rounded off to		123,000			845,000
					968,000

No.	Section 20.4 Regional Administrative Conference, MM-R1 and EMA	Budget 1985 - Swiss francs -

Salaries and related expenses for the translation, typing and reproduction services

Provision is made for the following expenses for language, typing, reproduction and draughtsmen's services.

A. Preparatory work (1984 and 1985)

	Volume of work in pages	Days of work	Calendar days	Sw. frs.
Translation				
Translators	)	100	140	57,000
Revisers	) 750	42	58	26,400
Typists	)	63	88	9,900
Typing				
Typists	2,175	181	254	28,400
Reproduction				
Offset operators	)		20	2,500
Assemblers	)1,050,000		72	8,000
Draughtsmen			12	1,600
Total A				133,800
			Rounded off to	134,000

B. Conference (19 days)

	Volume of work in pages	Number	Calendar days	Sw. frs.
Language Service				
Translators		16	289	117,000
Revisers		6	120	54,600
Typists	1,550	9	181	20,000
Typing				
Typists	)	38	738	82,700
Heads of team	) 6,325	3	57	8,500
Heads of section	)	7	133	18,000
Reprography				
G.4	)1,950,000	4	76	9,300
G.3	)	2	38	4,300
G.2	)	10	190	19,800
Draughtsmen G.5		2	38	5,100
Total B				339,300
			Rounded off to	339,000

No.	Section 20.4 Regional Administrative Conferences MM-R1 and EMA		Budget 1985 - Swiss francs -
	Total A + B	473,000	
	Provision for payment of overtime to General Services staff	35,000	508,000
	Travel expenses (recruitment)		
	Travel expenses entailed by recruitment of non-local supernumerary staff have been estimated at		80,000
	Insurance		
	Accident and sickness insurance expenses for supernumerary staff recruited specifically for the work of the Conference are estimated at	37,000	
	Provision has also been made for covering the expenses entailed by the affiliation of a category of supernumerary staff to the United Nations Joint Staff Pension Fund	40,000	77,000
	Premises, furniture, machines		
	Meeting rooms at the CICG have to be reserved for 19 days + 2 days for preparation and 2 days for clearing = 23 days (free of charge)	-	
	Use of simultaneous interpretation equipment	12,000	
	Maintenance of meeting rooms, security at night and weekends	12,000	
	Rental of furniture and machines	8,000	32,000
	Document production		
	The volume of documentation is expected to amount to 3,000,000 pages. The cost of producing this documentation outside the Union workshops has been estimated at		142,000
	Supplies and overheads		20,000

No.	Section 20.4 Regional Administrative Conferences MM-R1 and EMA	Budget 1985 - Swiss francs -

PTT

Mainly the cost of postage for dispatch of documents	30,000
Technical installations	5,000
Sundry and unforeseen	10,000

Interest credited to the ordinary budget

Under Article 44.1.iii) of the Financial Regulations, and on the basis of an interest rate of 4% per annum for amounts advanced from the ordinary account over a period of 6 months, the interest credited to the Union budget has been estimated at 35,000

Final Acts

It has been estimated that the Final Acts of the two Conferences would number 250 pages and that 300 copies would be printed in French, 600 in English and 100 in Spanish. Accordingly, the following production costs have been foreseen :

a) Cost of printing the "Blues", "Pinks" and "Whites", charged entirely to the budget of the Conferences	15,000
b) Translation into Russian and Arabic :	
250 pages at 100 Swiss francs per page (x 2)	50,000
c) Data capture for the storage of the texts in first reading ("Blues"), correction for the texts in second reading ("Pinks") and correction for the final texts ("Whites")	

No.	Section 20.4 Regional Administrative Conferences MM-R1 and EMA	Budget 1985 - Swiss francs -

Under paragraph 20 of Annex 2 to the Financial Regulations of the Union, it will be for the Plenary Meetings of the two Conferences to decide on the percentage of the composition costs to be borne by the Conference budgets and the supplementary publications budget respectively. On the basis of the experience of earlier conferences, it is proposed to charge 1/3 of the composition costs to the Conference budgets and 2/3 to the supplementary publications budget.

If the Conferences were to follow this procedure, the share to be covered under Section 20.4 would amount to 1/3 of 63,000 Swiss francs, or	21,000
Total	86,000

No.	Section 35 Income	Income 1983	Budget 1984	Budget 1985
		- Swiss francs -		

Contributions by Members of the Union towards defraying the expenses of the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in certain parts of the MF band in Region 1.

Under No. 115 of the Nairobi Convention, expenses incurred by regional administrative conferences shall be borne in accordance with their unit classification by all the Members of the Region concerned and, where appropriate, on the same basis by any Members of other Regions which have participated in such Conferences.

The recapitulation of credits appearing in Section 20.4 shows that the expenditure to be borne by the Members of Region 1(i.e. 2/3 of the total Conference expenditure) would amount to 1,329,000 Swiss francs-

The Members of Region 1 are as follows :

		Contributory units
1.	Albania (Socialist People's Republic of)	1/4
2.	Algeria (Algerian Democratic and Popular Republic)	1
3.	Germany (Federal Republic of)	30
4.	Angola (People's Republic of)	1/4
5.	Saudi Arabia (Kingdom of)	10
6.	Austria	1
7.	Bahrain (State of)	1/2
8.	Belgium	5
9.	Benin (People's Republic of)	1/4
10.	Byelorussian Soviet Socialist Republic	1/2
11.	Botswana (Republic of)	1/2
12.	Bulgaria (People's Republic of)	1
13.	Burkina Faso	1/8
14.	Burundi (Republic of)	1/8
15.	Cameroon (United Republic of)	1/2

No.	Section 35 Income	Income 1983	Budget 1984	Budget 1985
		- Swiss francs -		

		Contributory units
16.	Cape Verde (Republic of)	1/8
17.	Central African Republic	1/8
18.	Cyprus (Republic of)	1/4
19.	Vatican City State	1/4
20.	Comoros (Federal and Islamic Republic of the)	1/8
21.	Congo (People's Republic of the)	1/2
22.	Ivory Coast (Republic of the)	1
23.	Denmark	5
24.	Djibouti (Republic of)	1/8
25.	Egypt (Arab Republic of)	1
26.	United Arab Emirates	1
27.	Spain	3
28.	Ethiopia	1/8
29.	Finland	5
30.	France	30
31.	Gabonese Republic	1/2
32.	Gambia (Republic of the)	1/8
33.	Ghana	1/4
34.	Greece	1
35.	Guinea (Revolutionary People's Republic of)	1/8
36.	Guinea-Bissau (Republic of)	1/8
37.	Equatorial Guinea (Republic of)	1/8
38.	Hungarian People's Republic	1
39.	Iraq (Republic of)	1/4
40.	Ireland	2
41.	Iceland	1/4
42.	Israel (State of)	1
43.	Italy	10
44.	Jordan (Hashemite Kingdom of)	1/2
45.	Kenya (Republic of)	1/4
46.	Kuwait (State of)	1
47.	Lesotho (Kingdom of)	1/8
48.	Lebanon	1/4
49.	Liberia (Republic of)	1/4
50.	Libya (Socialist People's Libyan Arab Jamahiriya)	1½
51.	Liechtenstein (Principality of)	1/2
52.	Luxembourg	1/2
53.	Madagascar (Democratic Republic of)	1/4
54.	Malawi	1/8
55.	Mali (Republic of)	1/8
56.	Malta (Republic of)	1/4
57.	Morocco (Kingdom of)	1
58.	Mauritius	1/4
59.	Mauritania (Islamic Republic of)	1/4
60.	Monaco	1/4

No.	Section 35 Income	Income 1983	Budget 1984	Budget 1985
		- Swiss francs -		

		Contributory units
61.	Mongolian People's Republic	1/4
62.	Mozambique (People's Republic of)	1/4
63.	Namibia	-
64.	Niger (Republic of the)	1/8
65.	Nigeria (Federal Republic of)	2
66.	Norway	5
67.	Oman (Sultanate of)	1/2
68.	Uganda (Republic of)	1/8
69.	Netherlands (Kingdom of the)	10
70.	Poland (People's Republic of)	2
71.	Portugal	1
72.	Qatar (State of)	1/2
73.	Syrian Arab Republic	1/2
74.	German Democratic Republic	3
75.	Ukrainian Soviet Socialist Republic	1
76.	Romania (Socialist Republic of)	1/2
77.	United Kingdom of Great Britain and Northern Ireland	30
78.	Rwanda (Republic of)	1/8
79.	San Marino (Republic of)	1/4
80.	Sao Tome and Principe (Democratic Republic of)	1/8
81.	Senegal (Republic of the)	1
82.	Sierra Leone	1/8
83.	Somali Democratic Republic	1/8
84.	Sudan (Democratic Republic of the)	1/8
85.	Sweden	10
86.	Switzerland (Confederation of)	10
87.	Swaziland (Kingdom of)	1/4
88.	Tanzania (United Republic of)	1/8
89.	Chad (Republic of the)	1/8
90.	Czechoslovak Socialist Republic	2
91.	Togolese Republic	1/4
92.	Tunisia	1
93.	Turkey	1
94.	Union of Soviet Socialist Republics	30
95.	Yemen Arab Republic	1/4
96.	Yemen (People's Democratic Republic of)	1/8
97.	Yugoslavia (Socialist Federal Republic of)	1
98.	Zaire (Republic of)	1/2
99.	Zambia (Republic of)	1/4
100.	Zimbabwe (Republic of)	1/2
	Total	238 3/4

The amount of the contributory unit for this Conference is therefore estimated at:

$\frac{1,329,000}{238.750}$ = 5,560 Swiss francs. Rounded off to 5,600 Swiss francs

No.	Section 35 Income	Income 1983	Budget 1984	Budget 1985
		- Swiss francs -		

Contributions by Members of the Union towards defraying the expenses of the Regional Administrative Radio Conference for the Planning of Frequencies for Maritime Radiobeacons in the European Maritime Area

According to the particulars given in Section 20.4, the expenditure to be borne by Members belonging to the European Maritime Area (i.e. 1/3 of the total Conference expenditure) is expected to amount to 664,000 Swiss francs.

The Members of the European Maritime Area are as follows :

		Contributory units
1.	Albania (Socialist People's Republic of)	1/4
2.	Algeria (People's Democratic Republic of)	1
3.	Germany (Federal Republic of)	30
4.	Austria	1
5.	Belgium	5
6.	Byelorussian Soviet Socialist Republic	1/2
7.	Bulgaria (People's Republic of)	1
8.	Cyprus (Republic of)	1/4
9.	Vatican City State	1/4
10.	Denmark	5
11.	Egypt (Arab Republic of)	1
12.	Spain	3
13.	Finland	5
14.	France	30
15.	Greece	1
16.	Hungarian People's Republic	1
17.	Iraq (Republic of)	1/4
18.	Ireland	2
19.	Iceland	1/4
20.	Israel (State of)	1
21.	Italy	10
22.	Jordan (Hashemite Kingdom of)	1/2
23.	Lebanon	1/4
24.	Libya (Socialist People's Libyan Arab Jamahiriya)	1 ½
25.	Liechtenstein (Principality of)	1/2

No.	Section 35 Income	Income 1983	Budget 1984	Budget 1985
		- Swiss francs -		
				Contributory units
26.	Luxembourg			1/2
27.	Malta (Republic of)			1/4
28.	Morocco (Kingdom of)			1
29.	Monaco			1/4
30.	Norway			5
31.	Netherlands (Kingdom of the)			10
32.	Poland (People's Republic of)			2
33.	Portugal			1
34.	Syrian Arab Republic			1/2
35.	German Democratic Republic			3
36.	Ukrainian Soviet Socialist Republic			1
37.	Romania (Socialist Republic of)			1/2
38.	United Kingdom of Great Britain and Northern Ireland			30
39.	San Marino (Republic of)			1/4
40.	Sweden			10
41.	Switzerland (Confederation of)			10
42.	Czechoslovak Sovialist Republic			2
43.	Tunisia			1
44.	Turkey			1
45.	Union of Soviet Socialist Republics			30
46.	Yugoslavia (Socialist Federal Republic of)			1
	Total			211 3/4

The amount of the contributory unit for this Conference is therefore estimated at :

$$\frac{664,000}{211.750} = 3,136 \text{ Swiss francs rounded off to } \underline{3,100 \text{ Swiss francs}}.$$

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA
GENEVA, MARCH 1985

EUROP.

Document 1011-E
21 January 1985
Original: French

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 20-E
21 January 1985
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PLENARY MEETING

Note by the Secretary-General

FINANCIAL RESPONSIBILITIES OF ADMINISTRATIVE CONFERENCES

The Conference may wish to keep in mind the relevant decisions of the Plenipotentiary Conference (Nairobi, 1982) now embodied in Article 80 of the Convention, as well as Resolution No. 48 of that Conference. Copies of the relevant provisions of the Convention and the Resolution in full are attached for reference.

R.E. BUTLER
Secretary-General

Annexes: 2

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX 1

ARTICLE 80

Financial Responsibilities of Administrative Conferences and Plenary Assemblies of the CCIs

627 1. Before adopting proposals with financial implications, administrative conferences and the Plenary Assemblies of the International Consultative Committees shall take account of all the Union's budgetary provisions with a view to ensuring that these proposals will not result in expenses beyond the credits which the Administrative Council is empowered to authorize.

628 2. No decision of an administrative conference or of a Plenary Assembly of an International Consultative Committee shall be put into effect if it will result in a direct or indirect increase in the expenses beyond the credits that the Administrative Council is empowered to authorize.

ANNEX 2

RESOLUTION No. 48

Impact on the Budget of the Union of Certain Decisions of Administrative Conferences and Plenary Assemblies of the International Consultative Committees

The Plenipotentiary Conference of the International Telecommunication Union (Nairobi, 1982),

noting

a) the need for effective financial management on the part of the Union and its Members, necessitating close control over all demands upon the annual budgets;

b) that administrative conferences and Plenary Assemblies of the CCIs have taken decisions or adopted resolutions or recommendations with financial implications including additional and unforeseen demands upon the annual budgets of the Union;

c) that the financial resources of the Union need therefore to be taken into account by all administrative conferences and by all Plenary Assemblies of the CCIs;

recognizing

that the decisions, resolutions or recommendations mentioned above may be crucial to the successful outcome of individual administrative conferences or Plenary Assemblies of the CCIs;

recognizing also

that the Administrative Council in reviewing and approving the annual budgets of the Union, is bound by the financial limitations of Additional Protocol I and may not of its own authority be able to satisfy all the demands made upon the budgets;

recognizing further

that the provisions of Articles 7, 69, 77 and 80 of the Convention reflect the importance of effective financial management;

resolves

1. that before adopting resolutions or taking decisions which are likely to result in additional and unforeseen demands upon the budgets of the Union, future administrative conferences and Plenary Assemblies of the CCIs, having regard to the need for economy, shall:

1.1 prepare and take into account estimates of the additional demands made on the budgets of the Union;

1.2 where two or more proposals are involved, arrange them in an order of priority;

1.3 prepare and submit to the Administrative Council a statement of the estimated budgetary impact, together with a summary of the significance and benefit to the Union of financing the implementation of those decisions, and an indication of priorities where appropriate;

2. that the Administrative Council shall take all such statements, estimates and priorities into account when reviewing, approving and deciding on the implementation of such resolutions and decisions within the limits of the budget of the Union.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 21-E
28 January 1985
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PLENARY MEETING

France

PLANNING CRITERIA

1. Maritime mobile service and aeronautical radionavigation

F/21/1 1.1 Introduction

The planning criteria should ensure on a priority basis that:

a) there is a stable link in the area to be covered for a sufficient percentage of time;

b) there is interference to the use of the same frequency by other authorized stations only for a sufficiently small percentage of time.

1.2 Stability of service over a sufficient fraction of time

F/21/2 1.2.1. CCIR report to the RARC (Conference Document 3)

The report provides the data to be used, in particular the minimum field strength (paragraph 2.1.1.2) and the propagation attenuation (Annex II). However, atmospheric noise at the station may undergo significant fluctuations. Moreover, propagation attenuation versus distance is also subject to fluctuations, for which allowance should be made.

F/21/3 1.2.2. Conditions for overcoming variations in atmospheric noise

Since the median atmospheric noise value indicated in CCIR Report 322-2 is given as the minimum value in the CCIR report to the RABC, the margins to be allowed for noise fluctuations should be specified. The margins allow for the percentage of time for which the median noise value may be exceeded. In order to take account of this factor, Report 322-2 provides a graph (Figure 30) showing the percentage of time for which the mean noise value is exceeded by a given number of decibels. If it is necessary to be noise-free for a given percentage of time, the value of the signal received at the station should be increased so that the signal-to-noise ratio remains within the prescribed limits for the necessary amount of time.

F/21/4 1.2.3. Propagation attenuation

Propagation attenuation is subject to fluctuations which may be caused by atmospheric conditions, refraction, reflection, etc. In our view, the most severe cause of fading, even on MF, occurs when the ground wave no longer predominates owing to interference between the ground wave itself and another ray issuing from the same source and reaching the same reception point by a

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different path for whatever reason. There is a theoretical solution to this problem and the theory may be adapted to the data recorded in practice, as is explained in CCIR Report 339-5.

The ground wave will be regarded as a non-random factor and the wave which interferes with it as a random one. Both waves merge following the Rice law of probability yielding the result illustrated in the annexed graph: this shows the increase required in the received signal to ensure that the fading time does not exceed a set value. Taking account of the results in Report 339-5 and assuming the random wave power to be 20% of the total power, the results are brought into line with experience.

F/21/5 1.2.4. Sample calculation

- distance to be covered: 400 km
- frequency: 1.6 MHz
- field strength for 1 kW radiated (Recommendation 368-4 and CCIR report): 48 dB μV/m
- margin for 95% of the time (Report 322-2, Figure 30): 16 dB
- Rice law margin for 95% of the time: 7 dB
- minimum field strength (Report 322-2, northern region): 16 dB μV/m
- radiated power required to provide a stable link for 90% of the time (mean power): 125 W
- power supplied to the antenna by the transmitter: 500-1,250 W depending on antenna performance

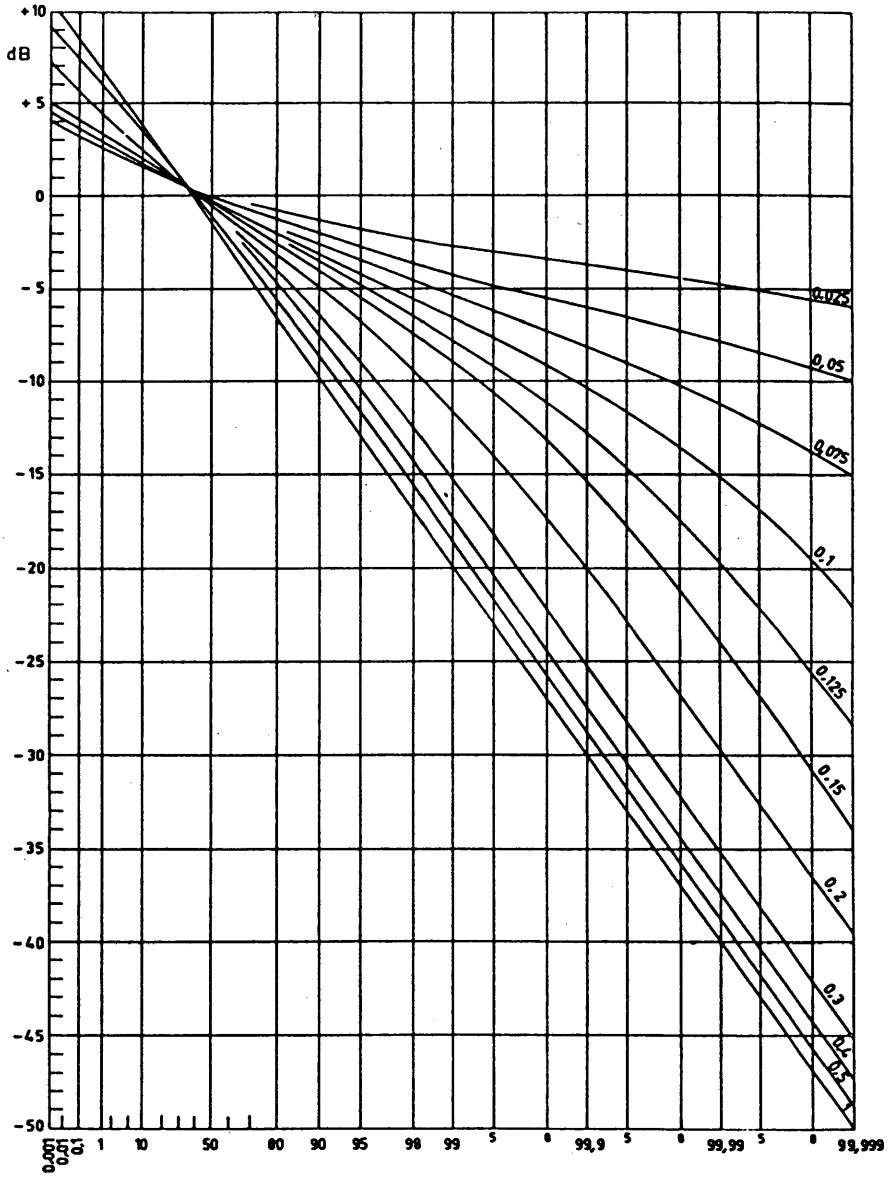
F/21/6 1.2.5. Frequency reuse

For the purpose of frequency reuse, the received interfering signal power should be at least 20 dB below the required minimum power for, say, 99% of the time.

The propagation curves in Report 368-4 will be used to evaluate the interference power, since according to the Rice law curve the resultant wave power may be 3-5 dB higher than the power that would be received if all the energy was concentrated in the ground wave.

F/21/7 2. Radiobeacons

For radiobeacons, the problem is simplified, since the service area of a radiobeacon is such that the ground wave within it must predominate, a condition which is essential for correct readings.



Rice law for a constant total power

(As parameter, the power fraction carried by the random vector)

INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA

GENEVA, MARCH 1985

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

GENEVA, FEBRUARY/MARCH 1985

Document 22-E
15 February 1985
Original : English

PLENARY MEETING

Note by the Secretary-General

NOTE BY THE IFRB ON THE STATUS OF THE PRIMARY AND PERMITTED SERVICES IN CONNECTION WITH PLANNING AND NOTIFICATIONS

At the request of the International Frequency Registration Board, I transmit the attached IFRB Note for the information of the Conference.

R.E. BUTLER
Secretary-General

Annex : 1

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NOTE BY THE IFRB

on the status of the primary and permitted services in connection with planning and notifications

1. Introduction

On several occasions the Board's views were requested with respect to the interpretation to be given to the relationship between primary and permitted services when planning one of these services.

As both Conferences (RARC-EMA-R1 and RARC-MM-R1) concern planning in bands allocated to primary and permitted services, the Board will have to develop rules of procedure to be applied after the entry into force of the Final Acts of these Conferences when examining notices of frequency assignments in the services concerned, mainly when considering provisions of RR1245 of Article 12 of the Radio Regulations. These rules of procedure should take account of the manner in which the Conferences will treat the assignments pertaining to non-planned services and recorded in the Master Register. For this reason the Board has prepared this document to inform the Conference of the interpretation it gives to RR419 in relation to the agenda of the Conferences and to recommend actions with respect to non-planned services within and outside the planned area.

2. Considerations applicable to all services and bands

The Regional Administrative Conference for FM Sound Broadcasting (CARR-1), Geneva, 1984, requested the Board to prepare a document on this subject. The part of the document (Doc. No. CARR-1(2)/60) which refers to considerations applicable to all services and bands is reproduced below:

"The definition of a permitted service is contained in No. 419 of the Radio Regulations.

> "419 (3) Permitted and primary services have equal rights, except that, in the preparation of frequency plans, the primary service, as compared with the permitted service, shall have prior choice of frequencies."

RR419 (3) basically states that "permitted and primary services have equal rights", with one exception, i.e., "in the preparation of frequency plans". However, the use of these words implies that prior to and subsequent to such preparation the two categories of service have equal rights.

The preparation of a plan by a Conference is carried out by the Conference during its session. Subsequent additions to, modifications of and deletions from the plan which generally take place after the entry into force of the Final Acts of the Conference, cannot be considered as part of the "preparation". After the Conference therefore, the two categories of service will have equal rights.

It may be argued that because No. 419 refers to "frequency plans" the exception to "equal rights", giving prior choice of frequencies to the primary service, only applies if both primary and permitted services are being planned. This argument can be dismissed since it would mean that when the primary service only is being planned the exception, i.e., "prior choice of frequencies" does not apply and only if both services are being planned at the same time will the exception apply. Clearly the term "frequency plans", while in the plural, embraces the singular."

3. Situation prevailing in the bands to be planned

3.1 From the date of adoption of RR419 (ex No. 138 of the Radio Regulations of 1959) until today only one conference had to deal with planning a primary service in a band allocated also to a permitted service; it was the Regional Administrative Conference for FM Sound Broadcasting (CARR-1), Geneva, 1984. It is, however, to be noted that the allocation to the permitted service in that case was generally for a limited time duration and the resolution of the problem was found in multilateral arrangements among the administrations concerned, the results of which were not included in the Final Acts of the Conference.

3.2 It may be assumed that the Administrative Council was aware of the situation which may exist between primary and permitted services and for this reason included in the agenda of both Conferences the items intended to protect services other than the planned ones. Paragraph 2.2 of Resolution No. 898 and paragraph 2.3 of Resolution No. 897 stipulate "to afford appropriate protection to frequency assignments to stations of other services to which the bands are also allocated, when establishing the Plan(s)". In addition, Resolution No. 897 refers to "a compatible development of other services to which the bands are allocated".

3.3 As for the protection of other services, the situation differs from one band to another. For a better understanding of the situation prevailing in each case, the following table summarizes the possible cases:

Frequency Allocations in Region 1 kHz	Service(s) to be Planned	Protection to be Afforded to Other Services in Region 1	Services in Regions 2 and 3
283.5 - 315 MARITIME RADIONAV. /AERONAUTICAL RADIONAVIGATION/	MAR. RADIONAV. (in European Maritime Area)	/AERO.RADIONAV./ in EMA and MAR. and AERO.RADIONAV. outside EMA	MARITIME RADIONAVIGATION AERONAUTICAL RADIONAVIGATION
415 - 435 AERONAUTICAL RADIONAVIGATION /MARITIME MOBILE/	AERONAUTICAL RADIONAVIGATION /MARITIME MOBILE/	RR419 applies between AERO. RADIONAV. and /MAR.MOB./	MARITIME MOBILE
435 - 495 MARITIME MOBILE aero. radionav.	MARITIME MOBILE	-	MARITIME MOBILE
505 - 526.5 MARITIME MOBILE /AERONAUTICAL RADIONAVIGATION/	MARITIME MOBILE /AERONAUTICAL RADIONAVIGATION/	RR419 applies between MARITIME MOBILE and /AERO.RADIONAV./	MOBILE *), MARITIME MOBILE *), AERO.RADIONAV. *)
1 606.5 - 1 625: 1 635 - 1 800: 2 045 - 2 160: MARITIME MOBILE /FIXED/ /LAND MOBILE/	MARITIME MOBILE	/FIXED/ /LAND MOBILE/ Note RR483	BROADCASTING *) FIXED *) MOBILE *) RADIOLOCATION *) AERO.RADIONAV. *) RADIONAVIGATION *)

*) Note: The allocations to the services mentioned above in Regions 2 and 3 have different band limits than those in Region 1.

4. Considerations applicable to the bands where both primary and permitted services are to be planned (415 - 435 kHz, 505 - 526.5 kHz)

In the light of the above, the position of the primary and permitted services in Region 1 is as follows:

4.1 Prior to be the Conference both primary and permitted services have equal rights, i.e. both may be considered as primary;

4.2 During the Conference (i.e., period of preparation of plans) the primary service has "prior choice of frequencies". This Conference when assigning frequencies to stations of one service should decide on the manner of how to satisfy and protect the requirements of the other service;

4.3 Modifications to the Plan: Since the two categories of service, primary and permitted, regain equal rights after the Conference, the procedure of modification of the Plan to be developed by this Conference should take this situation into account.

4.4 Notification of frequency assignments to the IFRB: At the notification stage, in accordance with Article 12 of the Radio Regulations, the Board will examine the frequency assignment notices to stations of the planned services in the following way:

a) In accordance with RR1240, the Board examines the conformity of the frequency assignment with respect to the provisions of the Radio Regulations, other than those relating to the probability of harmful interference, in which no other station than the one under consideration is taken into account; (Findings are given in Column 13A1);

b) In accordance with RR1245, the Board does not examine the notice under RR1241 with respect to assignments of countries party to the Agreement; the examination is limited to the conformity of the frequency assignment with respect to the Regional Agreement and the Plan annexed thereto or modified subsequently in accordance with the Agreement; (Findings are given in Column 13A2).

c) The Board examines the notice under RR1241 vis-à-vis the frequency assignments recorded, at the time of the receipt of the notice, in the Master Register on behalf of countries non-party to the Agreement. (Findings are given in Column 13A3.)

5. Considerations applicable to the bands where only the primary service is to be planned (283.5 - 315 kHz, bands above 1 606.5 kHz)

5.1 Prior to the Conference both primary and permitted services have equal rights;

5.2 During the Conference, when assigning frequencies to the primary service to be included in the Plan, this Conference should, in accordance with its agenda, afford appropriate protection to frequency assignments of the other services. (N.B. The required extracts from the MIFR are being made available to the Conference.)

5.3 Modifications to the Plan:

5.3.1 Since after the Conference the primary and permitted services regain equal rights this Conference should, in accordance with its agenda adopt procedures "permitting a compatible development of the other services to which the bands are allocated". This implies that the Conference should adopt procedures governing the relationship between planned and non-planned services which would lead to procedures applicable to the non-planned services.

5.3.2 As this Conference should, in accordance with its agenda, afford appropriate protection to frequency assignments to stations of other services, modifications to the Plan should be examined from the view point of the probability of harmful interference being caused to the assignments of the permitted services recorded in the MIFR at the date of the modification.

5.3.3 As a counterpart to the above, this Conference should adopt provisions applicable to parties to the Agreement permitting the protection of assignments in the Plan which have not yet been brought into use. In the absence of such provisions, a frequency assignment of a permitted service, notified just after the Conference and capable of causing harmful interference to planned assignments not in use will receive a favourable finding. Their recording in the MIFR will give them the right to international protection. Such situations may greatly reduce the efficiency of the Plan. A possible solution to this may consist in adopting provisions in the Agreement that will request the Board to examine assignments in the other services to which the band is allocated vis-à-vis all the assignments appearing in the Plan, the examination not being limited to those recorded in the MIFR as stated in RR1241. The Board considers that this Conference is entitled to take such a decision for the following reasons:

a) the agenda of the Conference contains the need to protect the assignment of other services and to permit their future development;

b) without planning these other services, the countries party to the agreement may coordinate the use of the band by all the services, this coordination being carried out:

- during the Conference by protecting the existing assignments of these other services during the planning process as well as in the modification procedures, and

- after the Conference, by requesting the Board to examine future notifications in these services with respect to all assignments appearing in the Plan.

5.4 Notification of frequency assignments to the IFRB

In addition to the examination of the conformity with the Radio Regulations and the conformity with the Regional Agreements (described in paragraphs a) and b) of point 4.4 above) the Board examines the notice with respect to the probability of harmful interference vis-à-vis the assignments recorded, at the time of the receipt of the notice, in the Master Register on behalf of administrations non-party to the Agreement.

6. Relations with non-parties to the Agreement in the three Regions

6.1 Irrespective of their category of allocation (primary or permitted), assignments notified by countries non-party to the Agreement in Region 1, 2 or 3 will be examined by the Board only with respect to those assignments which are recorded in the Master Register and not with respect to those assignments appearing in the Plan which are not recorded in the Master Register.

6.2 Similarly, assignments in the Plan, when notified, will be examined with respect to assignments of countries non-party to the Agreement in Region 1, 2 or 3 which are recorded in the MIFR. As they may run the risk of receiving an unfavourable finding, the Board recommends that the planning process take account of assignments already recorded; extracts will be made available to this effect.

6.3 Situations similar to that described in paragraph 5.3.3 above may occur when countries non-party to the Agreement notify assignments after the Conference. There exists no possibility for the Board to protect the Plan in such situations except if a world administration conference, with this matter on its agenda, adopts provisions to this effect.

7. Particular comments on footnotes to the Frequency Allocation Table

7.1 RR458

It is to be noted that the change of the band limit from 285 kHz to 283.5 kHz (decided by the WARC-79) shall take place only on 1 February 1990.

7.2 RR471

When planning the portion of the band 505 - 510 kHz for the aeronautical radionavigation service measures should be taken to consider the provisions RR471, RR3018 and Resolution No. 206(MOB-83). (For FC see Resolution No. 704(MOB-83).)

7.3 RR483

It is to be noted that the fixed and land-mobile services are primary services for the countries and frequency bands mentioned in footnote RR483.

7.4 RR488

Footnote RR488 stipulates that the countries mentioned therein may allocate up to 200 kHz to their amateur service in the bands 1 715 - 1 800 kHz and 1 850 - 2 000 kHz subject to prior consultation with neighbouring countries.

The first band referred to above takes part of the frequency bands to be planned by the Conference. While no administration has notified the IFRB of such allocation, the Conference should be informed by the interested administrations of their position regarding this allocation and the measures they consider necessary in order to afford protection to their amateur service.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 23-E
13 February 1985
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PLENARY MEETING

Sweden

PROPOSALS FOR THE WORK OF THE CONFERENCE

1. INTRODUCTION

Document 15 contains proposals from Norway and Sweden for the basic parameters and principles to be applied by the Conference for the frequency planning for the maritime mobile and the aeronautical radionavigation service.

In the frequency planning work the Conference will have to consider also stations of other primary service in particular the fixed and land mobile service in the band 1606,5-1625 and 1635-1800 kHz in certain countries of Region 1 (RR 483).

In order to facilitate the frequency planning we propose that these services shall be protected according to some standardized criteria. Section 2 of this document contains detailed proposals for these criteria.

2. FIXED AND LAND MOBILE SERVICE

When planning transmit frequencies for coast stations of the maritime mobile service the following criteria are proposed to be applied for stations of the fixed and land mobile services where these are primary services.

We consider that it will not be possible to also consider protection on the corresponding transmit frequencies for ship stations. The probability for harmful interference from a ship station to a fixed or land mobile station will normally be very small. The case where a fixed station or a base station is likely to cause interference to a coast station receiver may be more delicate. We propose that such cases be solved case by case, for instance by selecting another ship station transmit frequency.

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S/23/1 2.1 PROPAGATION

As in Doc 15, section 2.1 (Proposals NOR/S/15/1-2).

S/23/2 2.2 MINIMUM USABLE FIELD STRENGTH

39 dB rel 1 μV/m

S/23/3 2.3 PROTECTION RATIO (wanted to unwanted signal, co-channel)

20 dB

S/23/4 2.4 ADJACENT CHANNEL PROTECTION RATIO

At	2	kHz	separation	0	dB
"	2.5	"	"	-14	"
"	3	"	"	-24	"
"	3.5	"	"	-31	"
"	4	"	"	-37	"
"	4.5	"	"	-43	"
"	5	"	"	-48	"
"	5.5	"	"	-54	"
"	6	"	"	-60	"

Note: These values are based on receiver selectivity characteristics for J3E. It is assumed that possible existing equipment with wider selectivity characteristics will be phased out in accordance with RR 2700.

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA
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REGION 1

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RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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PLENARY MEETING

Sweden

PROPOSALS FOR THE WORK OF THE CONFERENCES

In the preparatory work for the two regional administrative radio conferences (maritime mobile and aeronautical radionavigation services in Region 1 and maritime radiobeacons in the European Maritime Area) the Swedish Administration has used a computer program, originally developped for frequency planning for aeronautical and maritime radiobeacons. This program has also been used for preparatory test planning within ICAO, CEPT and Nordtel.

The experiences of the use of the computer program are positive. The possibilities to run either in an automatic mode or a "manual" interactive mode give some flexibility in the frequency planning.

On request by the IFRB we have informed the Board, and after informal contacts with the IFRB secretariat some modifications to the program have been made. The program has also been tested on ITU hardware.

The Swedish Administration hereby proposes that the computer program as described in Annex 1 be used by the Conference.

The description is based on values for the technical planning parameters as proposed in other documents submitted by Sweden.

In Annex 2 there are some proposals concerning the organisation of the work.

Annex 1: "Computer program for frequency assignments to aeronautical and maritime beacons and to coast stations in the band 283.5 - 1800 kHz"

Annex 2: "Proposals concerning the organisation of the work etc."

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ANNEX 1

S/1013/1
S/24/1

Computer program for frequency assignments to aeronautical and maritime beacons and to coast stations in the band 283.5 - 1 800 kHz

Abstract

The computerprogram was originaly created for frequency assignments to aeronautical radiobeacons (NDB) and to beacons in the maritime radio-navigation service but the program can also be used for frequency planning in the maritime mobile service. The program has been used for frequency planning within ICAO/FCB.

The ground wave propagation calculations based on the curves in CCIR Rec 368 are made for propagation over both land and sea. By using these results together with map studies manual estimations can be done consering mixed path propagation.

The sky wave propagation is calculated by using the curves in CCIR Rec. 435-4 for 50° geomagnetic latitude in the nothern hemisphere and for 30° in the southern.

It is estimated that the neccessary accuracy, including the data of the effective radiated power of the transmitters, is not high enough to make a more sofisticated method of calculations including a record of coastlines neccessary. Consequently the program was originaly not made for automatical frequency assignments but should be a tool for the frequency planner. Later on an automatical mode has been added, but this shall be used with caution.

The program needs a frequency register in frequency order including all present stations that have to be dealt with in the frequency planning work.

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1. Frequency bands to be planned

The computer program has been designed for planning in the following frequency bands:

Fq-band (kHz)	Service
283,5 -315	MRN
415 -435	ARN, /MMO/
435 -495	MMO
505 -526,5	MMO, /ARN/
1606,5-1625	MMO x)
1635 -1800	MMO x)

ARN = Aeronautical radionavigation service (RR 44)
MRN = Maritime "- (RR 42)
MMO = Maritime mobile service (RR 30)
FX = Fixed service (RR 21)
ML = Land mobile service (RR 28)

When the assignments to the primary service have been done frequencies can be assigned to permitted services.

2. Planning criteria

The following values concerning protected fieldstrength at the service range and protection ratios are used. They can be changed to other values as decided by the Conference.

Maritime beacons

Minimum fieldstrength: 34 dB μ V/m, north of 43° N
37 dB μ V/m, south of 43° N
Protection ratio: 15 dB

Aeronautical beacons

Minimum fieldstrength: 37 dB μ V/m
Protection ratio: 15 dB

Fixed services

J3E	Minimum fieldstrength:	39 dB μ V/m
	Protection ratio:	20 dB
AIA/FIB	Minimum fieldstrength:	16 dB μ V/m
	Protection ratio:	8 dB

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x) Stations in the fixed and land mobile service can be taken into account.

Maritime mobile services

Around 500 kHz

AIA/FIB	Minimum fieldstrength:	25 dB μV/m, north of 30° N
		45 dB μV/m, south of 30° N
	Protection ratio:	8 dB

Around 2 MHz

AIA/FIB	Minimum fieldstrength:	16 dB μV/m, north of 30° N
		36 dB μV/m, south of 30° N
	Protection ratio:	8 dB
J3E	Minimum fieldstrength:	34 dB μV/m, north 30° N
		54 dB μV/m, south 30° N
	Protection ratio:	20 dB

3. Receiver selectivity

For receiver selectivity the program uses values according to the selectivity curves see figure 1.

Consequently, in the program it is assumed that no interferences will occur if the frequency separation is greater than 6 kHz.

4. Channelling

Wanted cannneling is pointed out on the "question card" in the requirement file under the headline "step-length", see para. 7.2.

For the time being the following channelling is assumed:

Maritime beacons:		0,5 kHz
Aeronautical -"-		1 kHz
MMO:	J3E	3 kHz
	AIA/FIB	0,5 kHz

For J3E stations in MMO the program is using the "assigned frequency" e.g:
1636.4; 1639,4; 1642,4.

5. Field strength calculations

The fieldstrength calculations are based on the ground-wave propagation curves given in CCIR Rec 368 with the following propagation characteristics.

Land path: $\gamma = 10^{-2}$ S/m, $\varepsilon = 30$
Sea path: $\gamma = 5$ S/m, $\varepsilon = 70$

Four curves are used:

300 kHz, for transmitters in the band	283.5 -350	kHz
400 "-	350 -435	kHz
500 "-	435 -526,5	kHz
2 MHz	1606,5-1800	kHz

The sky wave propagation curve is in accordance with CCIR Rec. 435-4 for 50°N and for 30°S. The latter value is used for stations situated south of 30° North.

Propagation curves see Appendix 1.

Using these curves the fieldstrength (E, dB μV/m) from a transmitter with 1 kW ERP can be calculated as follows:

$E = 104 - 20 \log N - F \qquad N \geq 0{,}54$ NM

F = the difference between the straight line (104 - 20 log N) and the real fieldstrength, see Appendix 1.

N = the distance from the transmitter in NM.

The value of F as a function of N is tabulated for:

land path propagation	F_L
sea " "	F_s
skywave "	F_R

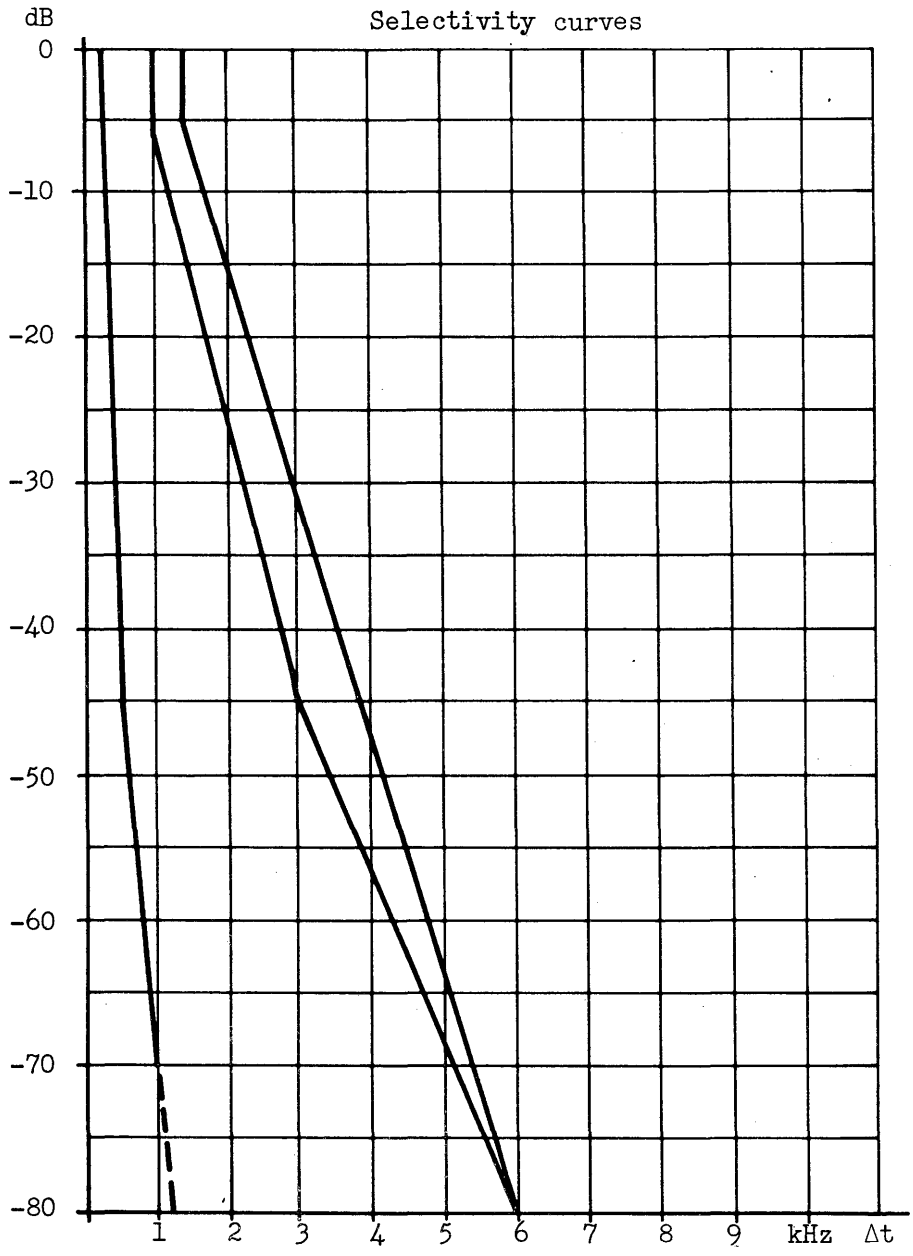


FIGURE 1

A = ARN	37 dB µV/m,	Prot. 15 dB,	propagation:	land
C = MMO, AIA/FIB ca 500 kHz,	25 dB µV/m,	Prot. 8 dB,	propagation:	sea
	45 "		:	sea
P = MMO, AIA/FIB ca 2 MHz,	16 dB µV/m,	Prot. 8 dB,	propagation:	sea
	36 "		:	sea
S = MMO, J3E ca 2 MHz,	34 dB µV/m,	Prot. 20 dB,	propagation:	sea
	54 "		:	sea
M = MRN, ca 300 kHz	34 dB µV/m,	Prot. 15 dB,	propagation:	sea
	37 "		:	sea
X = FX, ML J3E,	39 dB µV/m,	Prot. 20 dB,	propagation:	land
D = FX, ML AIA/FIB,	16 dB µV/m,	Prot. 8 dB,	propagation:	land

(See para 7.1)

In the interference calculations it is neccessary to estimate the field strength (Eo) at a distance of 1 NM or, alternativly 1 km from the transmitting antenna. The data in the IFL may be inaccurate or are incomplete e.g transmitter power, antenna efficiency, soil constants. Therefore in the program Eo is calculated with the assumption that the transmitter gives a correct "neccessary fieldstrength" on its service range. Futhermore it is assumed that all aeronautical beacons and all stations in the fixed and land mobile services are dimensioned for coverage over land (even if they are located on the coast) and that all maritime beacons and coast stations are dimensioned for coverage over sea, and that all frequency requirements are given for ground wave propagation.

The calculation of Eo for present stations that claim protection is a problem depending on the fact that their service ranges in IFL in many cases are valid for sky wave propagation only. Therefore in the calculations of Eo the following rules are used;

2 MHz: sea path, $N \geq 210$ NM, sky wave propagation
land path, $N \geq 30$ NM, "-

500 kHz: sea path, $N \geq 310$ NM, "-
land path, $N \geq 100$ NM, "-

300 kHz: sea path, $N \geq 400$ NM, "-
land path, $N \geq 200$ NM "-

ARN, ~ 400 kHz, does not claim night protection.

Calculations of Eo

$E = Eo - 20 \log N - F = Ep$

Ep = protected field strength at the service range (N) in NM.

$Eo = Ep + 20 \log N + F$ (dB, μV/m)

Eo is also used for calculations of the highest interfering field-strength against a receiver situated close to the transmitter. As the shortest interfering distance the following values are used:

1 km for aeronautical beacons, and
10 NM for coast stations and maritime beacons

These values can be chosen between 0,54 and 20 NM.

6. Calculations of the neccessary frequency separation

This description is made for aeronautical beacons but the same principles are used also in the calculations for the other services.

When assigning a frequency to a new beacon it is neccessary to check that the reception from the new beacon will not be interfered and that the new beacon transmitter will not disturb the reception of the old beacons.

Thus for each new frequency (f) the risk of mutual interferences must be calculated against all old stations within a distance of Dmax (NM) from the new beacon and within a frequency range of (f+/-6) kHz (see para 3).

The program calculates the neccessary frequency separation (Δ fe) taking into account the service ranges (radiated power), the geografical separation (D) and the receiver selectivity and compares (Δ fe) with the real frequency separation (Δ f).

In principle the calculations are made in the following steps, see figure 2.

1) Calculate: $\Delta f = (f_o - f)$ — if $\Delta f \geq 6$ kHz take next frequency; if $\Delta f < 6$ kHz go to 2

2) Calculate: D — if D > Dmax take next station; if D $\leq$ Dmax go to 3

3) Calculate: D/U for the worst case

4) Calculate: (D/U)e = D/U - P;
P = protection

5) Calculate: neccessary frequency separation (Δf_e) for (D/U)e from actual receiver curve in figure 1.

6) Compare: (Δf_e) with Δ f. — if $\Delta f_e \leq \Delta f$ OK; if $\Delta f_e > \Delta f$ assignment impossible

7) Print out

The results of the program shows for each new beacon a number of useable frequencies (max 15) as well as the calculated D/U-value for each frequency against the five most dangerous old stations. Two series of D/U-values are reported, one for propagation over land and one for propagation over sea.

We have a frequency we shall check if free, and we know which old NDB-beacon we shall check this frequency against.

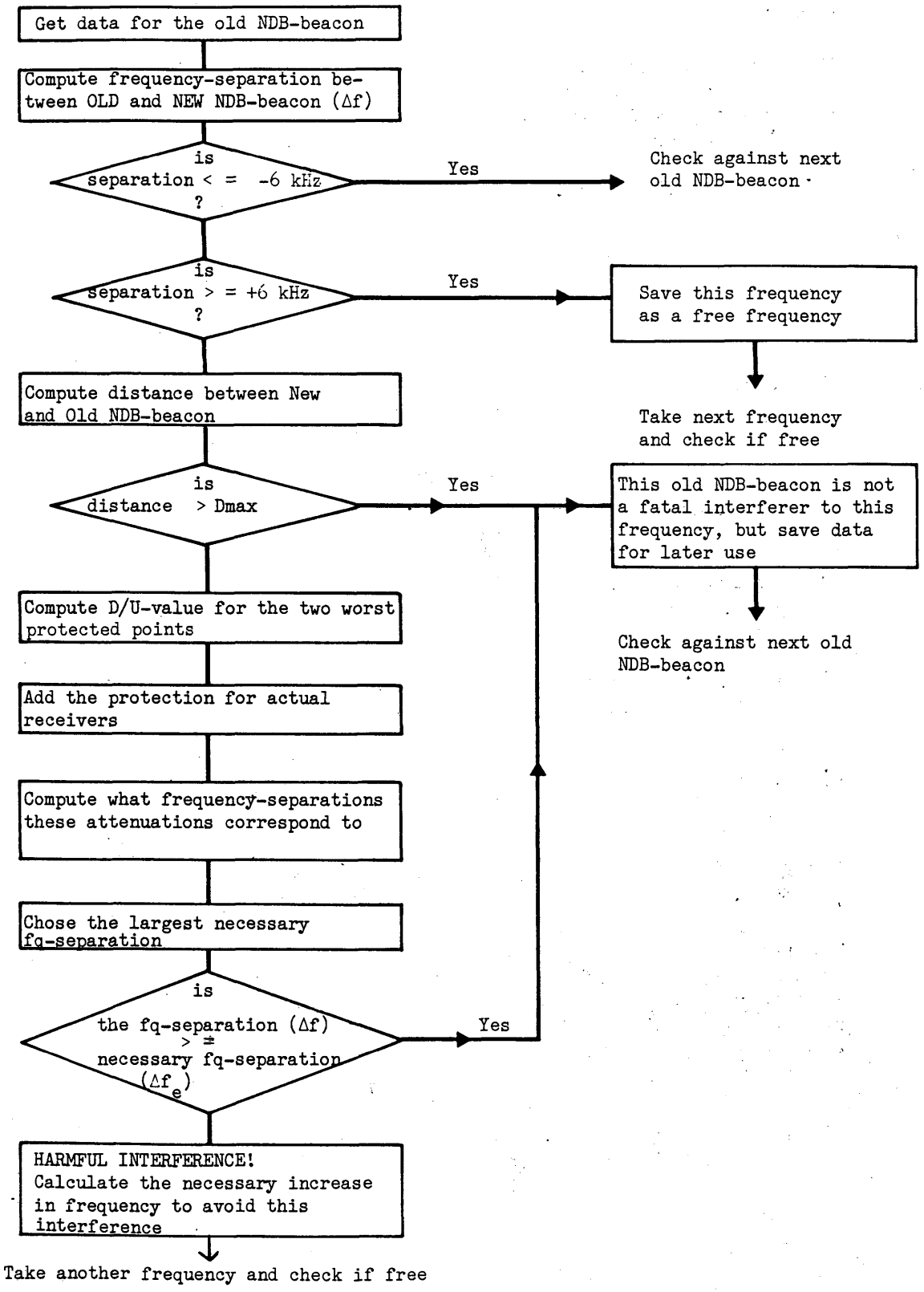


FIGURE 2

6.1 Calculate (D)

On a spheric earth the distance (D) between two beacons is:

$CV = \sin X_1 \sin X_2 + \cos X_1 \cos X_2 \cos/Y_1 - Y_2/$

$A = \text{acos } CV$ (radian)

$D = \frac{A \cdot 180 \cdot 60}{\pi}$ (NM)

X,Y = The geographical position of the beacons in latitud and longitud (degrees and minutes) with their signs. (North positive, South negative, East positive, West negative).

6.2 Calculate D/U

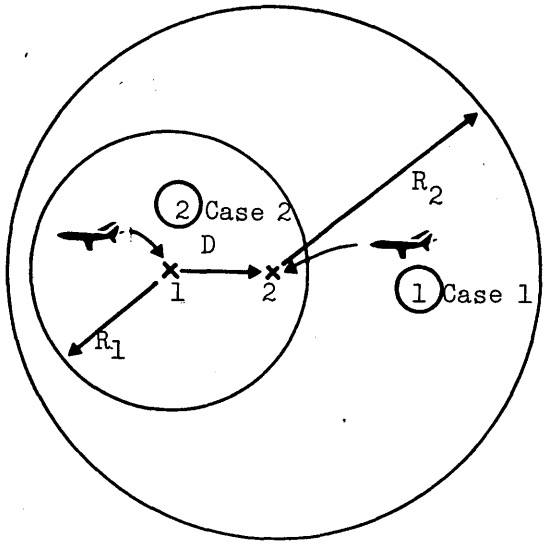
With regard to the distance (D) the calculations can be divided into a number of different cases described below.

In the explantions below it is assumed that the two beacons have different service ranges.

$D \leq R_1$

The big beacon (2) is situated within or at the edge of the service range of the small beacon.

Case 1: the receiver is situated over No 2 listening to No 1 (and is intended for reception from beacon No 1). Transmitter No 2 is interfering.



Calculate:

$$E_{o2} = E_{p2} + 20 \log R_2 + F_2$$

$$E_u = E_{o2} - 20 \log R_{min} - F_{Rmin}$$

$$E_{o1} = E_{p1} + 20 \log R_1 + F_1$$

$$E_D = E_{o1} - 20 \log (D - R_{min}) - F_{(D-Rmin)}$$

$$D/U = E_D - E_u$$

E_{p1} = protected fieldstrength at the service range (R_1), see page 2

E_{p2} = "- (R_2), "-

E_{01} = radiated fieldstrength from 1

E_{02} = "- 2

E_u = unwanted fieldstrength from 2 at R_{min}

E_D = desired fieldstrength from 1 at ($D-R_{min}$)

D/U = desired to undesired fieldstrength ratio (dB)

R_{min} = shortest interfering distance (NM) to beacon 2
(0,54 for ARN, 10 for MRN and MMO)

F = the propagation factor, see page 4

The calculations are made for propagation over both land and sea.

In the calculations of E_o the range dependent factor F is chosen as a function of:

- the frequency band,
  see page 3 and Appendix 1

- type of service (land- or sea propagation),
  see page 4

- sky-wave propagation or not, rangedependent,
  see page 7.

Whether the receiver shall have night protection or not is pointed out in the frequency register and on the "question cards" in the "Range" column
by a letter "N" (blank = day protection only). The following rules are being applied by checking this position (see addendum 1 to doc 15);

N - N	Sky wave propagation
N - blank	Ground wave propagation
blank - N	"-
blank - blank	"-

Case 2: The receiver is situated over No 1 and is listening to No 2.

The calculations are made in the same way as in case 1.

$R_1 < D \leq R_2$

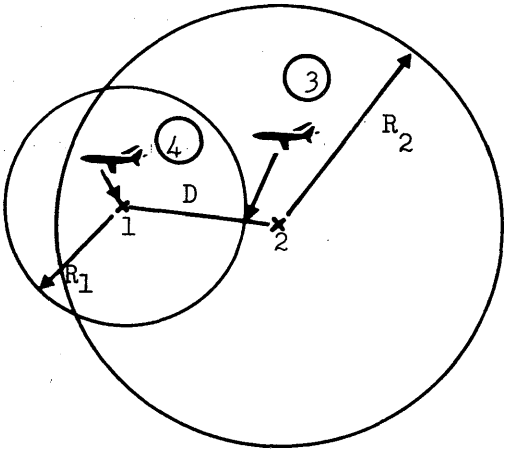
Case 3: beacon No 2 interferes the reception from No 1 at its service range (R_1)

Calculate: $E_D = E_{o1} - 20 \log R_1 - F_1$

$E_U = E_{o2} - 20\log(D-R_1) - F_{(D-R1)}$

$D/U = E_D - E_U$

Case 4: beacon No 1 interferes the reception from No 2.



Calculate: $E_D = E_{o2} - 20\log(R_2-D) - F_{(R2-D)}$

$E_u = E_{o1} - 20\log R_1 - F_1$

$D/U = E_D - E_U$

$D > R_2$

The distance between the two beacons is larger than the service range of the big beacon.

Case 5: beacon No 2 interferes the reception from No 1 at its service range (R_1)

Calculate: $E_D = E_{o1} - 20 \log R_1 - F_1$

$E_u = E_{o2} - 20 \log (D-R_1) - F_{(D-R1)}$

$D/U = E_D - E_u$

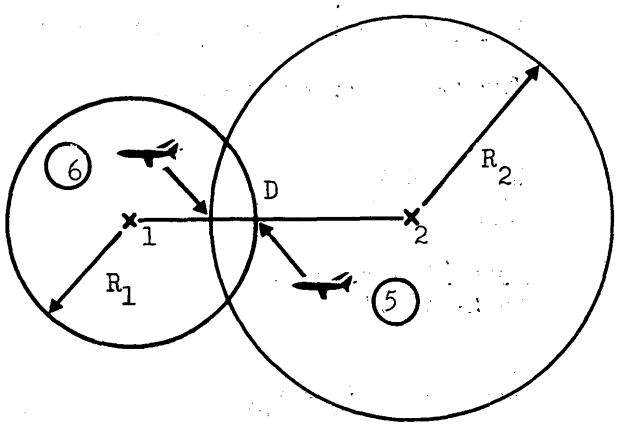
Case 6: beacon No 1 interferes the reception from No 2

Calculate:

$E_D = E_{o2} - 20 \log R_2 - F_2$

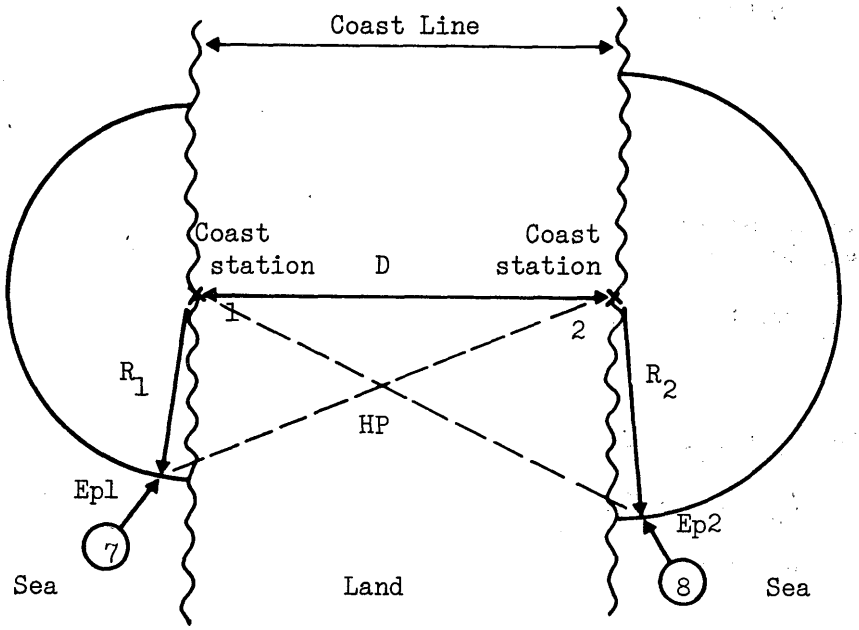
$E_U = E_{o1} - 20 \log (D-R_2) - F_{(D-R2)}$

$D/U = E_D - E_U$



When the calculations are made for coast stations with a large land area between the two transmitters the calculations for land path propagation will give a wrong and misleading result. In order to have some guidance also in this case the following two special cases can be used. In the program it is called calculation "box 2". The result is still sorted in D/U order for sea path propagation.

Situation:



The two coastlines are assumed to be parallel.

Case 7: the receiver is situated at point 7 listening to No 1, on the service range (worst case). Transmitter No 2 is interfering.

Calculate: $E_D = E_{p1}$

$E_U = E_{o2} - 20 \log HD - F_{HD}$

$D/U = E_D - E_U$

$HD = \sqrt{D^2 + R_1^2}$

When HD is larger than 210 NM (at 2 MHz) the value of F_{HD} is chosen for skywave propagation if night protection is required.

Case 8: the receiver is situated at point 8 listening to No 2, on the service range. Transmitter No 1 is interfering.

Calculate: $E_D = E_{p2}$

$E_U = E_{o1} - 20 \log HD - F_{HD}$

$D/U = E_D - E_U$

$HD = \sqrt{D^2 + R_2^2}$

In case 7 and 8 the result must be inspected manually using a map.

Saving computertime in the calculations

In order to speed up the calculations the largest neccessary separation distance in NM between two transmitters in the same service and with a maximum range of 300 NM have been calculated see table 1.

Service		North 30°N		South 30°N	
		Sea path	Sky wave	Sea path	Sky wave
SSB/FIB/AIA	2 MHz	800	1 250	800	1 700
FIB/AIB	500 kHz	700	850	700	1 000
ARN	400 kHz	650	-	650	-
Maritime beacons	300 kHz	850	950	850	1 400

Table 1: Maximum neccessary separation distance (Dmax) between two transmitters in the same service.

If the distance is larger than the one given in table 1, no interference calculations will be made.

6.3 Calculate: (D/U)e = (D/U-P)

The neccessary protection (P) is given in paragraf 2 "sharing criteria".

However, in areas with a high density of stations it may be impossible to find a frequency for a new transmitter. Thus in order to be in the position of studying the influence of the protection ratio the wanted protection (P) is made a variable and has to be read in before running the program.

6.4 Calculate: Neccessary frequency separation (Δ f)e

The neccessary frequency separation (Δ f)e for the calculated (D/U)e value is given by the selectivity curves in figure 1.

The selectivity curves are inserted in the program and can be changed if neccessary by reprogramming.

7. A short description of the program

The work with the frequency register and the running of the program is controlled from a video display terminal.

7.1 The frequency register

The program needs a frequency register in frequency order including present assignments claiming protection. Each register record consists of the following fields:

1. Frequency (kHz)
2. Name
3. Country
4. ID-signal
5. Equipment
6. Coordinates (North and West/south)
7. Category (I or N) - International or National use
8. Service range (NM)
9. Night protection (N)
10. Power (not used in the program)
11. Remarks (" " " " ")

The latitude (....Nor S) and longitude (.....E or W) coordinates are given in degrees and minutes.

"Type" means:

M = maritime radio beacon, receiver selectivety curve M, Eo calculates for sea path propagation, protection see para. 2 and 3.

A = aeronautical beacon (NDB), receiver selectivity curve A, Eo calculates for land path propagation, protection see para. 2 and 3.

C = MMO, AIA/FIB, ~ 500 kHz, receiver selectivety curve C, Eo calculates for sea path propagation, protection see para. 2 and 3.

P = MMO, AIA/FIB, ~ 2 MHz, receiver selectivety curve P, Eo calculates for sea path propagation, protection see para. 2 and 3.

S = MMO, J3E, receiver selectivety curve S, Eo calculates for sea path propagation, protection see para. 2 and 3.

X = FX, ML, J3E, receiver selectivety curve X, Eo calculates for land path propagation, protection see para. 2 and 3.

D = FX, ML, AIA/FIB, receiver selectivety curve D, Eo calculates for land path propagation, protection see para. 2 and 3.

7.2 "Question cards"

By running the program in a manual, interactive mode a maximum of 21 new assignments can be made in each run. An automatic mode can also be used.

The question cards have the same fields as the frequency register with the exceptions that these cards have got a registration number and that there is no frequency indication. Instead of a frequency the frequency interval is pointed out by assigning:

- o lower frequency boundary
- o upper "-
- o step length - channelling (for the time being 0,2; 0,4; 0,5; 1,0; 2,3 and 3 kHz)

The question cards are stored in a requirement file for the Conference produced by IFRB. The remark column shows the IFRB identification number.

Wanted question cards for each run can be selected from the file by using a special program "select".

Corrections and amendments in the requirement file can be done by a special program.

7.3 The program

The program system is developed for IBM/470 (Amdahl) system GUTS and is written in FORTRAN 77.

The system layout and the programming has been done by the Senior Research Engeneer Gunnar Norell, OPIAB.

The system consists of the following main programs dealing with:

- technical, basic data
- blocked frequencies (see Appendix 2)
- the basic frequency register
- updating of the basic register
- the requirement file (questioncards)
- selection of question cards from the requirement file
- search of free frequencies
- test assignments
- updating of the basic frequency register with the new assignments.

The development of programs to handle the registers is depending on the computer systems on hand and has to be done individually. In Sweden a system with direct access is used.

The description below of the working order follows an example of a test run.

7.4 Working order and results

The work is controlled by successive questions on the screen or by manual starts of the different programs (see Appendix 3).

7.4.1 Read in and list the question cards

Listing can be done as well on the screen as on the printer.

Headline: New beacons to be assigned.

Example:

```
482-CCHGG*** PAGE      1
    DATE 85.01.24     TIME 16:03:33
                         NEW BEACONS TO BE ASSIGNED
                         ==========================
KARD FQ-INTERV.   STEP  NAME................ COUN ID. USE COORDINATES CAT RANGE
  1  415.0- 435.0 1.0   ARVIKA                S    R   NDB 5940N 1238E  N   50
  2  415.0- 435.0 1.0   GREBBESTAD            S    GRE NDB 5842N 1115E  N   50A
  3  415.0- 435.0 1.0   LUDVIKA               S    N   NDB 6006N 1505E  N   30AN
```

Check the list carefully!

7.4.2 Run "Search for free frequencies"

o Answer the question: Wich protection shall be used?

Result: for each question a list showing usable frequencies in difficulty order. Maximum 15 frequencies. The worst case is shown first i.e the frequency with the lowest D/U-value. In the automatic mode this frequency is chosen in order to have the tightest packing of the frequency band.

Headline: List of free frequencies.

Example (extract):

```
484-CCHGG*** PAGE      1
                    DATE 55.01.24          TIME 16:08:12
                         LIST OF FREE FREQUENCIES
                         ========================

 NEW NDB:    1
  FQ-INTERVAL     STEP     NAME                      COUN     COORDINATES        RANGE
 415.00 - 435.00   1.0     ARVIKA                    S        5940N 1238E         50

FQNEW     G-D/U   MODE  S-D/U     FQOLD    RANGE   NAME                    COUN    DIS
430.00     21.3    5     19.7     428.00    25    *SATENAS                 S       77.
           29.5    5     20.7     429.00    25    *KRISTINESMINDE          DNK    222.
           31.8    5     22.2     431.00    25    *ROSKILDE                DNK    242.
           41.8    5     27.1     430.00    30    *OFFSHORE MC             G      398.
           45.5    5     36.3     432.00    25    *KARUP                   DNK    232.

434.00     22.3    5     13.9     434.00    25    *TIRSTRUP                DNK    212.
           42.9    5     27.6     434.00    25    *SHAULAY                 URS    406.
           45.5    5     36.3     432.00    25    *KARUP                   DNK    232.
           57.7    5     40.4     435.00    55     STRZELIN                POL    522.
           60.1    5     40.4     434.00    50     GORKA                   URS    594.

423.00     24.3    5     22.1     425.00    30    *ORUST                   S       93.
           28.4    5     24.0     421.00    15    *BORLANGE                S       96.
           28.6    5     18.1     423.00    25    *ODENSE                  DNK    265.
           31.8    6 5   32.5     420.00    15     KARLSKOGA               S       60.
           33.0    5     27.2     421.00    15    *LINKOPING/SAAB          S      122.

432.00     24.7    5     15.5     432.00    25    *KARUP                   DNK    232.
           31.8    5     22.2     431.00    25    *ROSKILDE                DNK    242.
           39.5    5     26.5     432.00    50     KALININGRAD             URS    393.
           43.1    5     34.7     434.00    25    *TIRSTRUP                DNK    212.
           43.6    5     28.1     432.00    25    *LEMWERDER               D      413.

431.00     25.8    5     16.2     431.00    25    *ROSKILDE                DNK    242.
           30.7    5     21.5     432.00    25    *KARUP                   DNK    232.
           36.1    5     34.5     428.00    25    *SATENAS                 S       77.
           43.3    5     27.6     431.00    20    *UNST                    G      406.
           44.3    5     35.5     429.00    25    *KRISTINESMINDE          DNK    222.

433.00     28.3    5     19.9     434.00    25    *TIRSTRUP                DNK    212.
           30.7    5     21.5     432.00    25    *KARUP                   DNK    232.
           45.5    5     32.8     432.00    50     KALININGRAD             URS    393.
           46.6    5     37.0     431.00    25    *ROSKILDE                DNK    242.
           48.9    5     33.6     434.00    25    *SHAULAY                 URS    406.

435.00     28.3    5     19.9     434.00    25    *TIRSTRUP                DNK    212.
           48.9    5     33.6     434.00    25    *SHAULAY                 URS    406.
           51.7    5     34.4     435.00    55     STRZELIN                POL    522.
           55.1    5     37.9     436.00    30    *REINSDORF               DDR    465.
           60.3    5     51.1     432.00    25    *KARUP                   DNK    232.

 NEW NDB:    2
  FQ-INTERVAL     STEP     NAME                      COUN     COORDINATES        RANGE
 415.00 - 435.00   1.0     GREBBESTAD                S        5842N 1115E         50

FQNEW     G-D/U   MODE  S-D/U     FQOLD    RANGE   NAME                    COUN    DIS
432.00     15.1    4     18.4     428.00    25     SATENAS                 S       49.
           16.2    5      9.8     432.00    25    *KARUP                   DNK    161.
           [illegible]  5     17.7     431.00    25    *ROSKILDE                DNK    186.
```

Description of the result:

First line: a copy of the question card

FQNEW: Usable frequencies.

For each usable frequency the calculated D/U-value against the five most dangerous interferer are shown. Only frequencies with D/U≥P by land path propagation are printed out.
The interferer are sorted in D/U order for propagation over land if the program deals with ARN and for propagation over sea in the other cases.

G-D/U = Calculated D/U-value with land path propagation.

MODE: Interfering case, see paragraf 6.2.
Odd number: the "small" beacon is interfered.
Even number: the "big" beacon is interfered.
When two figures apear the left one shows the interfering case with land path propagation and the right one with sea path propagation.

S-D/U = Calculated D/U-value with sea path calculations.

FQOLD: The frequency of the old station.

RANGE: The service range, type and Night/Day protection of the old station

NAME: The Name of the old station. An "asterisk" before the name shows that it is interfered by the new station

COUN: The country

DIST: The distance between the new and the old station (NM)

The list is concluded by a tableau showing the usable frequencies for all the "question cards".

Head line: FREE FREQUENCIES

Example:

```
KARD    FREE FREQUENCIES
  1      430.0  434.0  423.0  432.0  431.0  433.0  435.0
  2      432.0  433.0  435.0
  3      426.0  428.0  425.0  427.0  429.0  434.0  431.0  430.0  432.0  433.0
```

7.4.3 Run "TEST ASSIGNMENT"

- o Study the list of available free frequencies and choose a frequency for each new station taking into account the real propagation path (land-, sea or mixed).

In order to pack the frequency band in a proper way it is desirable to assign the frequency with the lowest D/U-value (squeeze in the new station).

- o Decide in which order the question cards should be dealt with. As a general rule the cards should be handled in order of difficulty that is take the card with the lowest number of free frequencies first.

The chosen frequencies are entered as successive answers to the questions on the screen:

- o which station number is to be assigned a frequency, and after that
- o which frequency do you choose (only a frequency shown on the screen can be chosen)

After each frequency decision the program shows the impact on the choise of usable frequencies for the other new stations.

Example:

```
*****************************************************************************

480-CCHGG*** PAGE     1

 432.00 kHz for station   2  BLOCKES          free frequencies for station   1
  430.00    434.00    432.00    431.00    433.00

 432.00 kHz for station   2  INTERFERE with free frequencies for station   1
  435.00

 432.00 kHz for station   2  BLOCKES          free frequencies for station   3
  432.00

 432.00 kHz for station   2  INTERFERE with free frequencies for station   3
  429.00    434.00    431.00    430.00    433.00    435.00

 423.00 kHz for station   1  INTERFERE with free frequencies for station   3
  426.00    425.00    427.00
```

Break the procedure by pushing "Return" after the question "which station number is to be assigned a frequency". Start again at "Run test assignment".

After the last station in the file "New beacons to be assigned" has been assigned a frequency the program runs to an end automatically. As a result there will be a print out of a new list of free frequencies but now the impact of the new assignments is shown as well.

Headline "The result of the test assignment".

Example (extract):

THE RESULT OF THE TEST-ASSIGNMENT

NEW NO: 1

FQ-INTERVAL	STEP	NAME	COUN	COORDINATES	RANGE
423.00 - 423.00	1.0	ARVIKA	S	5940N 1238E	50

FQNEW	G-D/U	MODE	S-D/U	FQOLD	RANGE	NAME	COUN	DIS
423.00	24.3	5	22.1	425.00	30	*ORUST	S	93.
	28.4	5	24.0	421.00	15	*FORLANGE	S	96.
	28.5	5	18.1	423.00	20	*ODENSE	DNK	265.
	31.0	6 5	32.5	420.00	10	KARLSKOGA	S	60.
	33.0	5	27.2	421.00	15	*LINKOPING/SAAB	S	122.
439.00	26.3	5	37.9	432.00	50	GREBBESTAD	S	71.
	28.3	5	19.9	434.00	25	*TIRSTRUP	DNK	212.
	48.9	5	33.6	434.00	25	*SHAULAY	URS	406.
	51.7	5	34.4	435.00	55	STRZELIN	POL	522.
	55.1	5	37.9	436.00	30	*REINSDORF	DDR	465.

NEW NOB: 2

FQ-INTERVAL	STEP	NAME	COUN	COORDINATES	RANGE
432.00 - 432.00	1.0	GREBBESTAD'	S	5842N 1115E	50

FQNEW	G-D/U	MODE	S-D/U	FQOLD	RANGE	NAME	COUN	DIS
432.00	15.1	4	18.4	428.00	25	SATENAS	S	49.
	16.2	5	9.8	432.00	25	*KARUP	DNK	161.
	24.3	5	17.7	431.00	25	*ROSKILDE	DNK	186.
	34.9	5	29.1	434.00	25	*TIRSTRUP	DNK	145.
	37.3	5	23.6	432.00	25	*LEMWERDER	D	345.
433.00	20.1	5	14.3	434.00	25	*TIRSTRUP	DNK	145.
	22.2	5	15.8	432.00	25	*KARUP	DNK	161.
	29.9	4	33.2	428.00	25	SATENAS	S	49.
	39.7	5	32.5	431.00	25	*ROSKILDE	DNK	186.
	43.3	5	29.8	432.00	25	*LEMWERDER	D	345.
435.00	20.1	5	14.3	434.00	25	*TIRSTRUP	DNK	145.
	47.8	5	31.8	435.00	55	STRZELIN	POL	484.
	48.8	5	33.8	436.00	30	*REINSDORF	DDR	409.
	50.7	5	34.8	434.00	25	*SHAULAY	URS	422.
	51.8	5	45.4	432.00	25	*KARUP	DNK	161.

Another result list will also be produced as a summary named "Test assigned stations".

Example:

```
481-CCHGG*** PAGE      1

          TEST-ASSIGNED STATIONS
          ======================
KARD      FREQUENCY      NAME......... COUN ID. USE COORDINATES CAT RANGE
  1         423.00       ARVIKA        S    R    NDS 5940N 1239E  N   50
  2         432.00       GREBBESTAD    S    GRE  NDB 5842N 1115E  N   50
  3         426.00       LUDVIKA       S    N    NDB 6006N 1505E  N   30

          NOT ASSIGNED STATIONS
          --- ==========:
KARD   FQ-INTERV.    STEP   NAME ..........COUN  ID.  USE  COORDINATES   CAT RANGE
```

All stations were assigned a frequency.

Study the list carefully! If the results are satisfactory go to next step "Update the frequency register" if not, make a new test assignment. The test assignment can be repeated as many times as you wish.

7.4.4 Update the frequency register

The frequency register is updated by a special command through which the list "test assigned stations " is added to the main register.

8. Miscellaneous

The program can also be used to test an old assignment or a special frequency. In this case read in one frequency on the question card (i.e the same frequency on both band limits) and a very low protection ratio, for example -99dB.

Example: test the assignment of 351 kHz to Visby.
(Visby is already to be found in the frequency register at 351 kHz)

```
1916-CCHGG*** PAGE      1
    DATE 83. 6.28     TIME 16:15:34
                        NEW BEACONS TO BE ASSIGNED
                        ==========================
  RD FG-INTERV.  STEP  NAME              COUN SIG USE CCCRDINATES CAT RAN
  1 351.00-351.00 1.0  VISBY             S    CV  L   N5744 E1824  I    2


  2-CCHGG*** PAGE      1
                  DATE 83. 6.29          TIME 12:53:41
                        LIST OF FREE FREQUENCIES
                        ========================

 NEW NDB:   1
  FQ-INTERVAL    STEP     NAME                  COUN     COORDINATES    RANGE
351.00 - 351.00  1.0      VISBY                 S        N5744 E1824      25

FQNEW     G-D/O   MODE S-D/O     FQOLD    RANGE NAME                COUN    D
351.00      0.0    1     0.0     351.00    25   VISBY               S       (
           25.0    5    17.1     351.00    30M  TRUBADUREN          S      21
           30.6    6    21.7     351.00    15   MALMO/STJRUP        S      20
           34.9    6    24.5     351.00    15   HUDIKSVALL          S      24
           38.4    6    26.7     350.00    50   VESI                FNL    30

KARD   FREE FREQUENCIES
  1      351.0
```

The first line in the "list of free frequencies" shows the calculated D/U value against Visby itself (D/U=0).

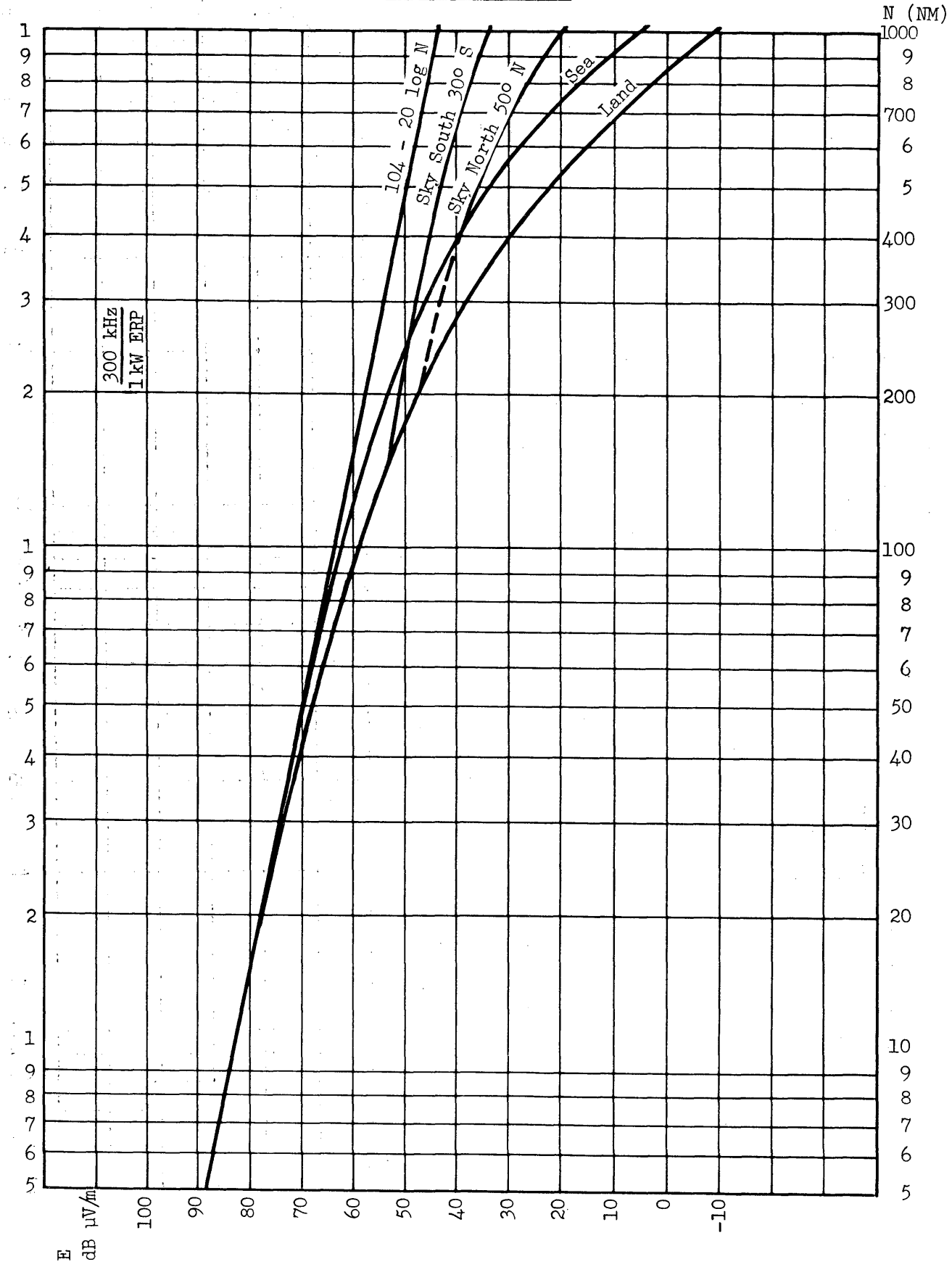
Against the other beacons with frequencies in the interval (351+/-6) kHz it can be seen that D/U > 15 dB for both land and sea path propagation.

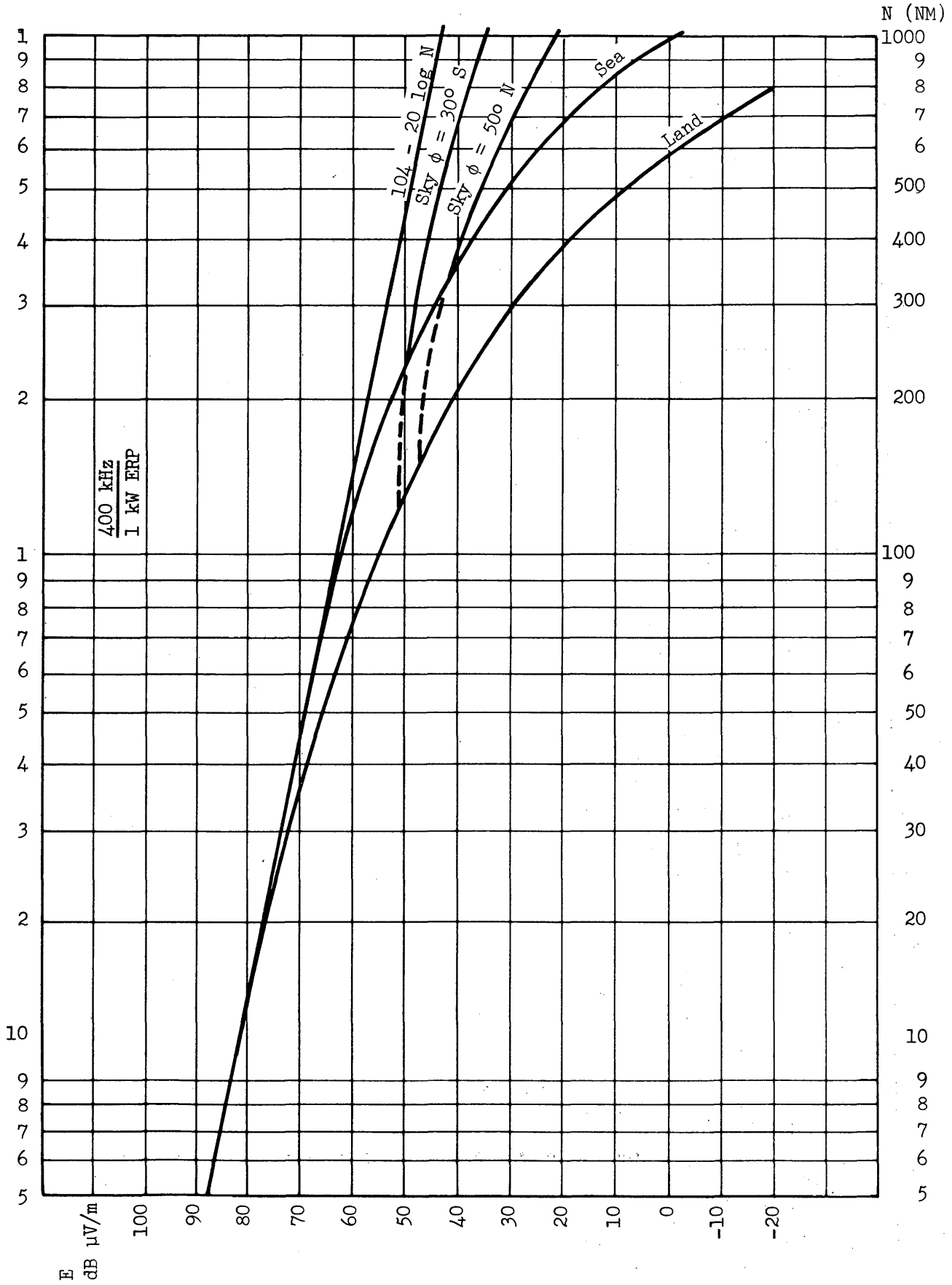
In the list there is a maritime beacon named Trubaduren. This beacon is located on the west coast of Sweden, the main part of the propagation path is over land.

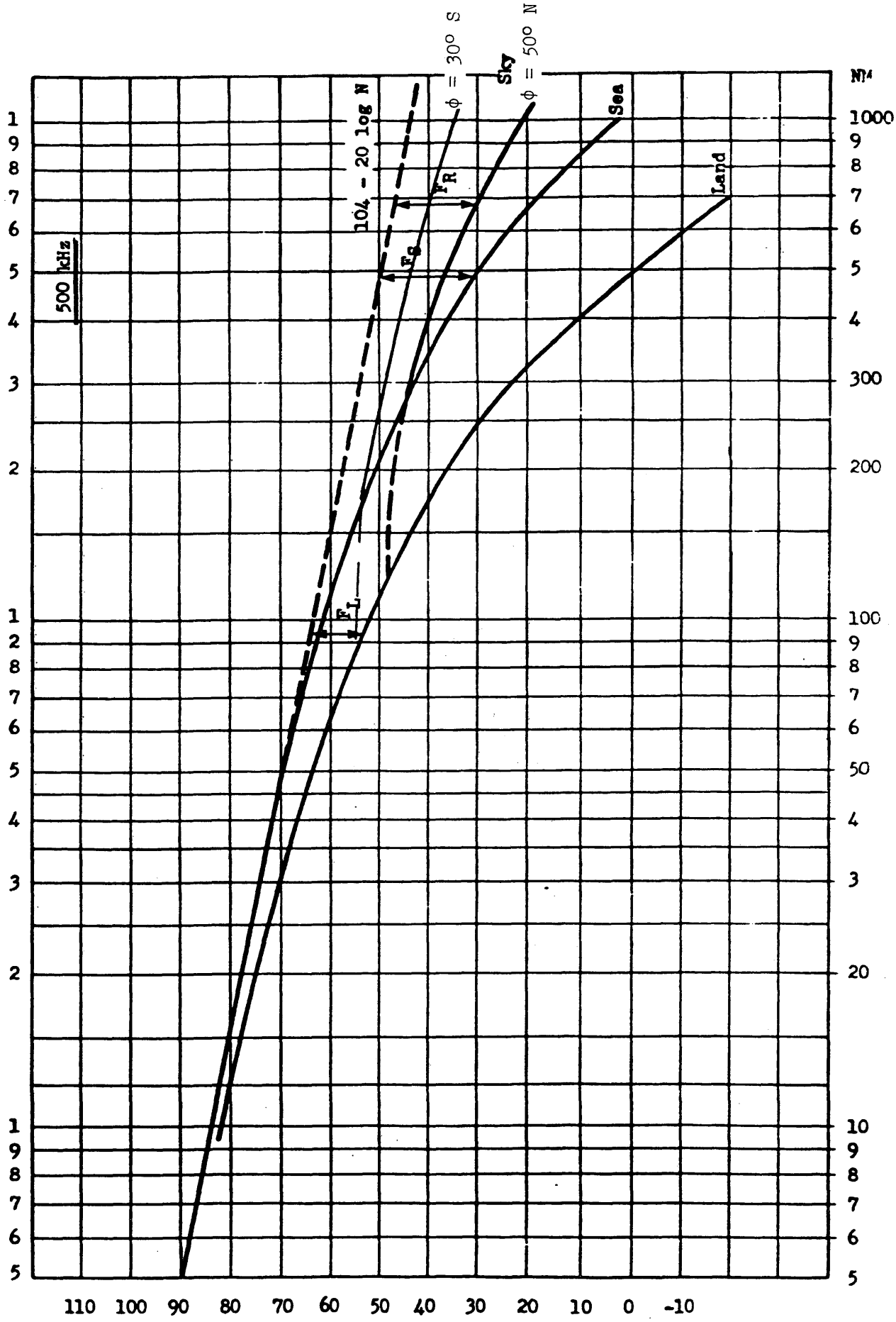
Test results: the assignment is excellent.

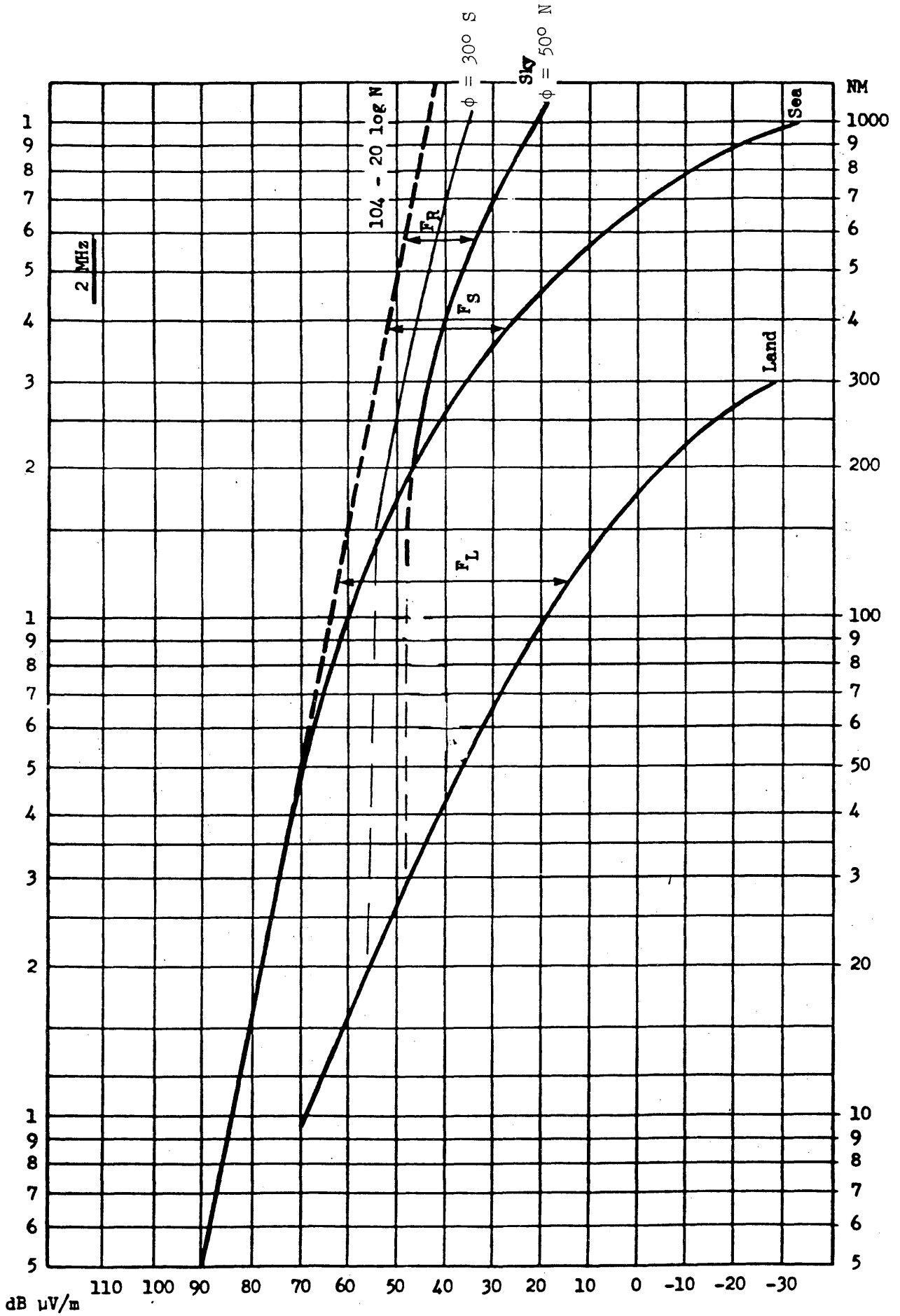
Appendix 1

Propagation curves




N (NM)
1000
500
400
300
200
100
50
40
30
20
10
104 - 20 log N
Sky φ = 30° S
Sky φ = 50° N
Sea
Land
400 kHz / 1 kW ERP
E dB µV/m
100
90
80
70
60
50
40
30
20
10
0
-10
-20


φ = 30° S
φ = 50° N
Sky
Sea
Land
104 - 20 log N
500 kHz
NM
1000
300
200
100
50
20
10
110 100 90 80 70 60 50 40 30 20 10 0 -10


2 MHz
104 - 20 log N
F_R
F_S
F_L
φ = 30° S
Sky
φ = 50° N
Sea
Land
NM
1000
300
200
100
50
20
10
dB µV/m
110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30

Appendix 2

Sida 1 (1)

Blocked frequencies

Blocked frequency = a not assignable frequency.

The blocked frequencies are entered through a separate program: "LOCKFQ".

For the time being the following frequencies are blocked.

283.5 - 315,0 kHz, MRN

283,5	Band edge
315,0	"-

415 - 435 kHz, ARN

415,0	Band edge
435,0	"-

After that the plan for ARN (NDB) has been established, frequencies for MMO may be assigned.

435 - 526,5 kHz, MMO

435,0	Band edge
450 - 490	Shipstations
490 - 510	WARC 83, Res 206, 704, RR 3018, 471
512,0	Reserved for special purpose
517,5 - 518,5	"-
526,5	Band edge

After that the plan for MMO has been established, frequencies for ARN may be assigned in the band 510 (505) - 526,5 kHz.

1606,5 - 1625,0 kHz, MMO (AIA, FIB)

1606,5	Band edge
1625,0	"-

1636,4 - 1798,4 kHz, MMO (J3E)

No blocked frequencies.

The underlined band limits shall be indicaded on the question cards in the field "FQ-INTERVAL".

Additional frequencies may be blocked according to decisions by the Conference.

ANNEX 2

Proposals concerning the organization of the work etc.

S/1013/2
S/24/2

1. **Preparations**

Before the planning excercise can start the Conference has to decide upon the planning criteria presented in Doc. 15 but also upon how to treat:

- **stations with different requirement concerning "day- and night" protection (see page 11)**

- **present assignments to permitted services. Shall these assignments be protected? If so it will hamper the possibilities to assign frequencies to the primary services considerably.**

  The "basic" frequency register should be examined carefully and updated consequential to the decisions taken.

S/1013/3
S/24/3

2. **Organisation of the work**

The planning work chould be done in three planning groups, one for each of the following frequency bands:

EMA Conference: 283,5 - 315 kHz. Maritime beacons
Region 1 Conference:
Group 1. 415 - 526,5 kHz. ARN and MMO.

This group should start with the MMO in the band 435 - 526,5 kHz. In the next step the group has to plan the ARN in the band 415 - 435 kHz. Proposed frequencies in accordance with the ICAO FCB plan can be entered after tests.Thereafter the group can assign frequencies to ARN in the maritime band and vice versa.

Group 2. 1606,5 - 1625.0 kHz. MMO (AIA/FIB)

1635 - 1800 kHz. MMO (J3E)

Check the present assignments concerning assigned frequency and range!

Each group should dispose one terminal with access to the computersystem containing the basic, technical data file and the blocked frequencies. The groups should also have:

- **a basic frequency register containing present assignments that shall be protected (on a file and on a printout).**

- **the "question cards", a requirement file and a print out. The question cards have got registration numbers.**

- **a map**

In each group the following working order should be applied.

S/1013/4
S/24/4

3. Working order

1) Check the basic frequency register - assigned frequencies, service ranges, types.

Update the basic register: RUN BBUPD

2) Check the question cards - fq-interval, service range, type

Update the requirement file: RUN BBFRKUPD

3) Establish a strategy for the planning work (see doc. 15 para 2.8.2).

4) Decide upon how to treat requirements with a proposed frequency.

It has been observed that for some coast stations about 20 frequency assignments are proposed.

5) Update the basic fq-register with the question cards that have proposed frequencies accepted by the Conference.

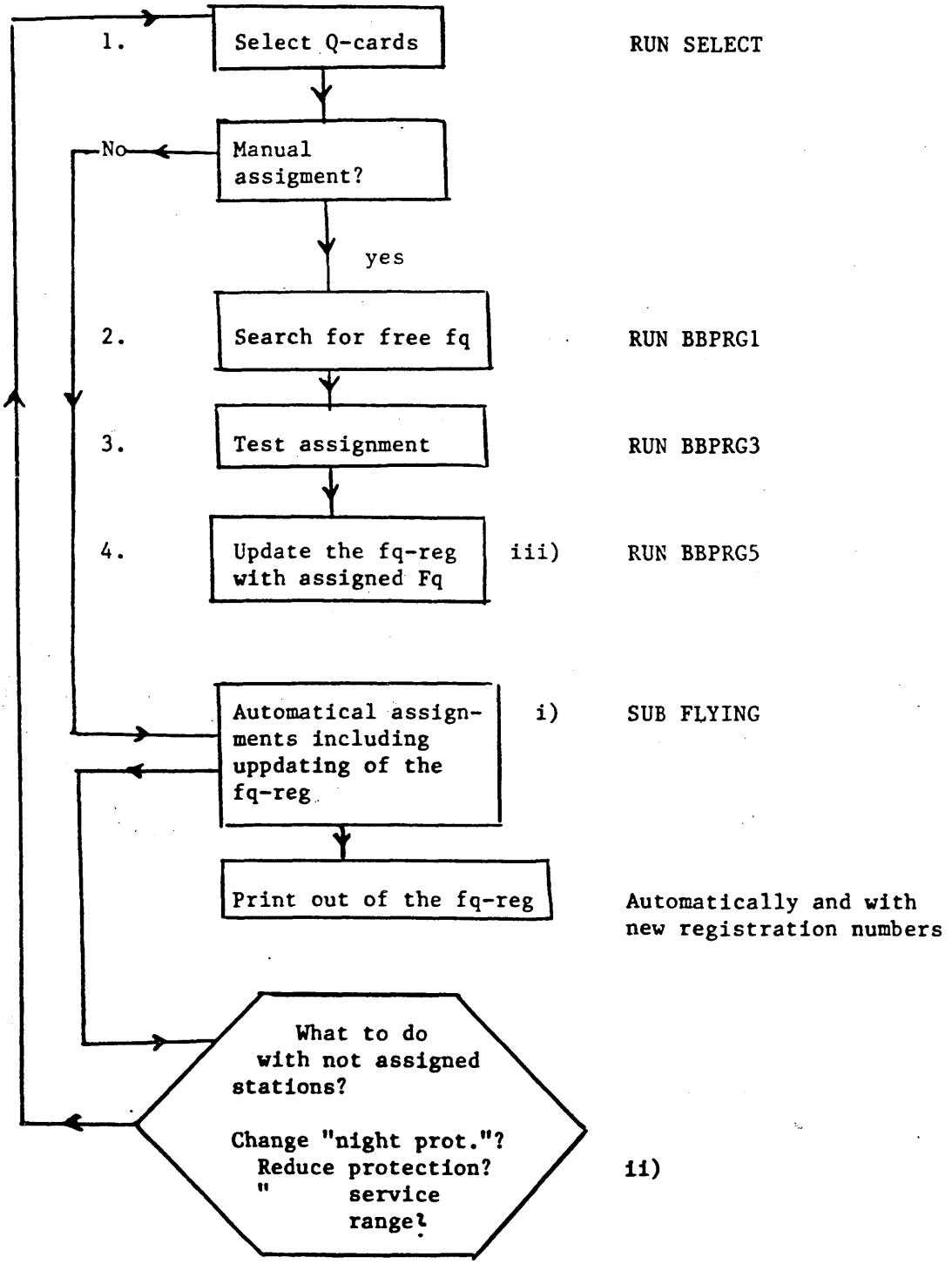
Program: RUN SELECT, and
RUN FLYING with

reduced protection or call for help.

6) Since it is unpractical to run the program with all requirements for the whole area entered, it is neccessary to divide the question-cards into batches, one for each run by noting their registration numbers. Use the printout. The devision depends on the strategy chosen in point 3 above.

It is suggested that the first run in each area should use the automatic mode. When problems occur the following runs can be done manually (max 21 cards)

7) Running procedure



i) see next page
ii) "-
iii) "-

Common programs

Manual updating of the basic fq-register	RUN BBUPD
Manual updating of the Q-cards	RUN BBFRKUPD
Print out of the fq-reg, in wanted order (frequency or country)	SUB LSTFQ or SUB LSTCUN

---

i) As a result of the automatic assignment program there will be two lists one showing assigned station and one showing not assigned stations. For "not assigned stations" the frequency 00,00 is inserted in the basic register. This entry has to be changed manually if the station gets a frequency later on.

ii) If the night protection or the service range has to be altered the Q-card has to be changed manually before the next run. A reduced protection (D/U-value for all stations of the same type is orderd by an answer to a question in the program "Search for free frequencies."

iii) Not assigned stations will remain in the requirement file. Run the program once again with e.g reduced protection for these stations (service)..

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA
GENEVA, MARCH 1985

EUROP.

Document 1014-E
13 February 1985
Original : French

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 25-E
13 February 1985
Original : French

BUDGET CONTROL COMMITTEE

Note by the Secretary-General

CONTRIBUTIONS OF RECOGNIZED PRIVATE OPERATING

AGENCIES AND NON-EXEMPT INTERNATIONAL ORGANIZATIONS

No. 623 of the International Telecommunication Convention, Nairobi, 1982 provides that :

> ..."The amount of the contribution per unit payable towards the expenses of administrative conferences by recognized private operating agencies which participate in accordance with No. 358 and by participating international organizations shall be fixed by dividing the total amount of the budget of the conference in question by the total number of units contributed by Members as their share of Union expenses ... They (the contributions) shall bear interest from the sixtieth day following the day on which accounts are sent out, at the rates fixed in No. 614".

The budget of the two Conferences totals 1,993,000 Swiss francs, 2/3 i.e. 1,329,000 Swiss francs being charged to the Regional Administrative Radio Conference for the Maritime Mobile and the Aeronautical Radionavigation Service in Certain Parts of the MF Band in Region 1, and 1/3 i.e. 664,000 Swiss francs to the Regional Administrative Radio Conference for the Planning of Frequencies for Maritime Radiobeacons in the European Maritime Area.

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

The amount of the contributory unit for recognized private operating agencies and international organizations which are not exempt under the provisions of Administrative Council Resolution No. 574 is expected to be :

5,567 Swiss francs for the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in Certain Parts of the MF Band in Region 1 (the contributory units of the Members of Region 1 totalling 238 3/4).

3,316 Swiss francs for the Regional Administrative Radio Conference for the Planning of Frequencies for Maritime Radiobeacons in the European Maritime Area (the contributory units of the Members of the European Maritime Area totalling 211 3/4). These figures will have to be adjusted to take into account the changes in the United Nations common system of staff salaries and allowances which have affected the budget of the two Conferences.

A list of the non-exempt recognized private operating agencies and international organizations participating in the work of the Conferences, with the number of contributory units chosen by them, will be published later.

R. E. BUTLER
Secretary-General

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 26-E
18 February 1985
Original: English
French
Spanish

PLENARY MEETING

Note by the Secretary-General

REPORT BY THE IFRB
TO THE REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARTIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN REGION 1 ON THE REASSIGNMENT OF FREQUENCIES IN ACCORDANCE WITH RESOLUTION NO. 38 OF WARC-79

At the request of the International Frequency Registration Board, I transmit the attached IFRB Report for the information of the Conference.

R.E. BUTLER
Secretary-General

Annexes: 2

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

REPORT BY THE IFRB

to the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in Region 1 on the reassignment of frequencies in accordance with Resolution No. 38 of WARC-79

1. The World Administrative Radio Conference, Geneva, 1979, when adopting modifications to the allocation of the frequency bands, noted that the implementation of the revised Table of Frequency Allocations might present difficulties, in particular for stations in the maritime mobile service in Region 1 in the following bands:

1 625 - 1 635 kHz;
1 800 - 1 810 kHz;
1 810 - 1 850 kHz and
2 160 - 2 170 kHz

which were made available by the WARC-79 for other services. In order to facilitate the transfer of the frequency assignments, WARC-79 decided in its Resolution No. 38 (resolves 2), that replacement frequencies for stations of the maritime mobile service, together with arrangements for their implementation, should be provided in the frequency assignment Plan to be established by the competent Administrative Radio Conference.

2. The Administrative Council included this matter in the Agenda of the present Conference. Paragraph 2.2 of the Agenda stipulates that replacement frequencies for stations of the maritime mobile service are to be reassigned in accordance with resolves 2 of Resolution No. 38 of WARC-79.

3. In order to facilitate this task the Board has extracted from the Master Register the assignments to stations of the maritime mobile service, recorded on behalf of countries of Region 1 in the frequency bands mentioned in paragraph 1 of this Report, and submits them to the Conference for appropriate action. Annex 1 to this Report contains the list of these assignments arranged in country symbol order and presented in a columnar format, each column being numbered (as shown in the heading of the pages of Annex 1) in accordance with the numbering system of Appendix 1 to the Radio Regulations. It is to be noted that assignments for the reception of the emissions of ship stations (receiving stations, class of station: MS), are marked at the left hand side of the assignment row by a preceding R. The list in Annex 1 includes also those assignments for intership communication in the frequency bands concerned which were notified to and recorded by the IFRB in accordance with the provisions of Resolution No. 303 of WARC-79. These assignments contain the letter M in Column 4A (name of transmitting station) and the symbol MMM in Column 4B (country or geographical area).

4. The Board considers that it might be useful for the Conference to have, for easy comparison with the above list of assignments from the Master Register, an extract of those requirements submitted by the administrations to this Conference which are intended to replace the frequencies currently operating in the bands to be vacated by the maritime mobile service. To this effect the Board compiled the list contained in Annex 2 to this Report which includes all those requirements (also published in Document 14 of the Conference) for which, in box 18 of the requirement form (frequency in use), indication was given that in accordance with paragraph 5 of the IFRB Circular-letter No. 554 of 8 September 1983, the assignment in question is actually operating in one of the frequency bands in paragraph 1 of this Report. The extracted requirements are listed in country symbol order and are presented in the same format as the one contained in Document 14 of the Conference. (The explanation of the Remarks or other information referring to the proposed new replacement frequency or preferred sub-bands are not repeated in this document: they are to be found in Document 14, Annex 5 under the same reference number.)

5. When comparing the lists contained in Annexes 1 and 2, the Board noted that not all the administrations concerned submitted requirements to replace their assignments actually recorded in the MIFR, in the frequency bands to be vacated by the maritime mobile service.

Annexes: 1 - Assignments in the Master Register to stations of the maritime mobile service in Region 1, in the bands to be vacated in accordance with Resolution No. 38 of WARC-79

2 - Requirements submitted by administrations to this Conference intended to replace assignments operating in the bands mentioned in resolves 1 of Resolution No. 38 of WARC-79 (box 18 of the requirement form contains a frequency in one of these bands).

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

AZR

Açores
Azores

	1625.000K	POR	HORTA	AZR028W3838N32	ATLANT NO/002		FCCO	100HA1A--	X	19.0	ND		0024	AA--			031251A80021232001	
	1827.000K	POR	FLORES	AZR031W1139N23	ATLANT NO/001		FCCO	6K00A3E--	Y	17.0	ND		0024	AA--			031251A80024652001	

BEL

Belgique
Belgium
Bélgica

	1818.400K	BEL	OSTENDE	BEL002E4851N11	002E4851N11	120	FCCP	2K80R3E--	X	29.0	ND		0024	A-E-			031251A80024586001	
					002E4851N11	120		2K80J3E--	X	29.0	ND		0024	A-E-			031251A	002
	1821.400K	BEL	OSTENDE	BEL002E4851N11	002E4851N11	120	FCCP	2K80R3E--	X	29.0	ND		0024	A-E-			031251A80024611001	
					002E4851N11	120		2K80J3E--	X	29.0	ND		0024	A-E-			031251A	002
					002E4851N11	120		2K80H3E--	Y	23.0	ND		0024	A-E-			031251A	003
	1831.000K	BEL	OOSTENDE	BEL002E5851N15	002E5851N15	3500	FCCO	1K10F1B--	Y	30.0	ND		0024	A-E-	P		311079A80024662001	
					002E5851N15	3500		100HA1A--	X	30.0	ND		0024	A-E-	P		311079A	002

BEN

Bénin (République Populaire du)
Benin (People's Republic of)
Benin (República Popular de)

	1813.000K	BEN	COTONOU	BEN002E2806N22	002E2806N22	500	FCCP	6K00A3E--	Y	24.0	ND		0719	A-E-			031251A80024526001	
R	2167.000K	BEN	002E2806N22 200		COTONOU		MSCP	6K00A3E--	Y	17.0			0024	AA--			031251A80032930001	

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

BHR

Bahreïn (Etat de)
Bahrain (State of)
Bahrein (Estado de)

```
  1825.400K BHR BAHRAIN          BHR050E3526N14 050E3526N14  500 FCCV   2K80J3E-- X 26.0 ND     0024 A-E- A     280775A80024646001
R 1825.400K BHR 050E3526N14  500                BAHRAIN          MSCV   2K80J3E-- X 26.0        0024 A-E- A     280775A80024647001
  2161.400K BHR M                MMM            BHR              MSCV   2K80J3E-- X 20.0 ND     0024 A---               80032660001
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CME

Cameroun (République du)
Cameroon (Republic of)
Camerún (República de)

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  1813.000K CME DOUALA           CME009E4204N02 009E4204N02   50 FCCP   6K00A3E-- Y 20.0 ND     0024 AA--       031251A80024527001
R 2167.000K CME 009E4004N05  200                DOUALA           MSCP   6K00A3E-- Y 17.0        0024 AA--       031251A80032931001
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COG

Congo (République populaire du)
Congo (People's Republic of the)
Congo (República Popular del)

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  1813.000K COG PNT NOIRE        COG011E5204S47 ATLANT    /002    FCCP   6K00B8E-- X 24.0 ND     0618 AA--       031251A80024528001
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- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

CTI

Côte d'Ivoire (République de)
Ivory Coast (Republic of the)
Costa de Marfil (República de la)

	1813.000K	CTI	ABIDJAN		CTI003W5805N22	003W5805N22	500	FCCP	6K00A3E--	Y	24.0	ND	0024	A-E-			031251A80024529001	

D

Allemagne ((République fédérale d')
Germany (Federal Republic of)
Alemania (República Federal de)

R	1627.500K	D	010E2354N09	500		KIEL		MSCP	6K00A3E--	Y	13.0		0024	A-E-			031251A80021263001	
R	1628.900K	D	BALT SEA /005			KIEL		MSCP	2K80R3E--	X	19.0		0024	A-E-			031251A80021286001	
			BALT SEA /005						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			BALT SEA /005						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
	1800.400K	D	NORDDEICH	D	007E1253N38	MANCHE	/010	FCCP	2K80R3E--	X	33.0	ND	0024	A-E-			031251A80024481001	
						NO SEA	/010											
						MANCHE	/010		2K80J3E--	X	33.0	ND	0024	A-E-			031251A	002
						NO SEA	/010											
						MANCHE	/010		2K80H3E--	Y	27.0	ND	0024	A-E-			031251A	003
						NO SEA	/010											

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

DJI

Djibouti (République de)
Djibouti (Republic of)
Djibouti (República de)

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  1813.000K DJI DJIBOUTI        DJI043E0711N35 043E0711N35 1000 FCCP   8K00A3E-- Y 29.0 ND      0024 A-E-        031251A80024530001
R 2167.000K F    043E0711N35  300              DJIBOUTI         MSCP   6K00A3E-- Y 17.0         0024 AA--        031251A80032933001
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DNK

Danemark
Denmark
Dinamarca

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  1804.400K DNK BLAAVAND        DNK008E0755N33 008E0755N33 1000 FCCP   2K80R3E-- X 37.0 ND      0024 A-E-        031251A80024490001
                                               008E0755N33 1000        2K80J3E-- X 37.0 ND      0024 A-E-        031251A          002

  1804.400K DNK LYNGBY AMAGER   DNK012E3455N35 012E3455N35 1000 FCCP   2K80R3E-- X 33.0 ND      0024 A-E-        091156A80024491001
                                               012E3455N35 1000        2K80J3E-- X 33.0 ND      0024 A-E-        091156A          002

  1804.400K DNK LYNGBY HYLDAGR  DNK011E3254N39 011E3254N39 1000 FCCP   2K80R3E-- X 33.0 ND      0024 A-E-        120868A80024492001
                                               011E3254N39 1000        2K80J3E-- X 33.0 ND      0024 A-E-        120868A          002

  1807.400K DNK LYNGBY AMAGER   DNK012E3455N35 012E3455N35 1000 FCCP   2K80H3E-- Y 27.0 ND      0024 A-E-        091156A80024502001
                                               012E3455N35 1000        2K80R3E-- X 33.0 ND      0024 A-E-        091156A          002
                                               012E3455N35 1000        2K80J3E-- X 33.0 ND      0024 A-E-        091156A          003

  1807.400K DNK LYNGBY HYLDAGR  DNK011E3254N39 011E3254N39 1000 FCCP   2K80H3E-- Y 27.0 ND      0024 A-E-        120868A80024503001
                                               011E3254N39 1000        2K80R3E-- X 33.0 ND      0024 A-E-        120868A          002
                                               011E3254N39 1000        2K80J3E-- X 33.0 ND      0024 A-E-        120868A          003

  1807.400K DNK LYNGBY SKAMLEB  DNK011E2555N50 011E2555N50 1000 FCCP   2K80H3E-- Y 31.0 ND      0024 A-E-        031251A80024501001
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- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

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>>>
1807.400K DNK LYNGBY SKAMLEB   DNK011E2555N50 011E2555N50 1000 FCCP  2K80R3E-- X 37.0 ND   0024 A-E-   031251A80024501002
                               011E2555N50 1000        2K80J3E-- X 37.0 ND   0024 A-E-   031251A         003

1811.400K DNK BLAAVAND         DNK008E0755N33 008E0755N33 1000 FCCP  2K80R3E-- X 33.0 ND   0024 A-E-   031251A80024519001
                               008E0755N33 1000        2K80J3E-- X 33.0 ND   0024 A-E-   031251A         002

1813.000K DNK BLAAVAND         DNK008E0755N33 008E0755N33 1000 FCCP  2K10A2B-- Y 27.0 ND   0024 AA--   031251A80024531001
                               008E0755N33 1000        6K00A3E-- Y 27.0 ND   0024 AA--   031251A         002

1814.400K DNK BLAAVAND         DNK008E0755N33 008E0755N33 1000 FCCP  2K80H3E-- Y 27.0 ND   0024 A-E-   031251A80024542001
                               008E0755N33 1000        2K80R3E-- X 33.0 ND   0024 A-E-   031251A         002
                               008E0755N33 1000        2K80J3E-- X 33.0 ND   0024 A-E-   031251A         003

1834.000K DNK THYBOROEN        DNK008E1356N42 008E1356N42 1000 FCCO  6K00A3E-- Y 24.8 ND   0024 AA--   031251A80024667001

1834.000K DNK M                MMM            ATLANT -         MSCP  6K00A3E-- Y 20.0 ND   0024 A---               80024666001
                                              BALT SEA
                                              NO SEA

2167.000K DNK M                MMM            BALT SEA         MSCP  2K10A2B-- Y 20.0 ND   0024 AA--   031251A80032934001
                                              BALT SEA               6K00A3E-- Y 20.0 ND   0024 AA--   031251A         002
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E

Espagne
Spain
España

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1800.000K E    AYAMONTE        E  007W2437N13 MRC CST   /007     FCCV  6K00A3E-- Y 17.0 ND   0024 A-E-   110957A80024476001

1818.400K E    CHIPIONA        E  006W2536N42 ATLANT    /006     FCCP  2K80H3E-- Y 24.4 ND   0024 A-E- P 280177A80024587001
                                              ATLANT    /006           2K80J3E-- X 30.0 ND   0024 A-E- P 280177A         002
                                              ATLANT    /006           2K80H3E-- Y 30.0 ND   0024 A-E- P 280177A         003

1840.000K E    SANTONA         E  003W2743N26 003W2743N26  140 FCCV  6K00A3E-- Y 14.8 ND   0024 A-E- P 180160A80024693001
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- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

F

France
Francia

R	1628.400K	F	001W1044N39	500		ARCACHON	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021277001	
			001W1044N39	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	001W3043N33	500		BAYONNE	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021278001	
			001W3043N33	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	001E3450N42	500		BOULOGNE ALPRE	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021279001	
			001E3450N42	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	001E0349N55	500		DIEPPE	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021280001	
			001E0349N55	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	004W4748N21	500		LE CONQUET	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021281001	
			004W4748N21	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	002E1251N01	500		LOON PLAGE	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021282001	
			002E1251N01	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	003W3047N52	500		QUIMPERLE	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021283001	
			003W3047N52	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	001W5848N41	500		S MALO	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021284001	
			001W5848N41	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1628.400K	F	002W0647N20	500		S NAZAIRE	MSCO	2K80R3E--	X	19.0			0024	A-E-			031251A80021285001	
			002W0647N20	500				2K80J3E--	X	19.0			0024	A-E-			031251A	002
R	1630.000K	F	001W1044N39	500		ARCACHON	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021296001	
R	1630.000K	F	001W3043N33	500		BAYONNE	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021297001	
R	1630.000K	F	001E3450N42	500		BOULOGNE ALPRE	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021298001	
R	1630.000K	F	001E0349N55	500		DIEPPE	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021299001	
R	1630.000K	F	004W4748N21	500		LE CONQUET	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021300001	
R	1630.000K	F	002E1251N01	500		LOON PLAGE	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021301001	
R	1630.000K	F	003W3047N52	500		QUIMPERLE	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021302001	
R	1630.000K	F	001W5848N41	500		S MALO	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021303001	
R	1630.000K	F	002W0647N20	500		S NAZAIRE	MSCO	6K00A3E--	Y	13.0			0024	AA--			031251A80021304001	

- R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
R	1631.400K	F	001W1044N39 500			ARCACHON	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021320001
			001W1044N39 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			001W1044N39 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	001W3043N33 500			BAYONNE	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021321001
			001W3043N33 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			001W3043N33 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	001E3450N42 500			BOULOGNE ALPRE	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021322001
			001E3450N42 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			001E3450N42 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	001E0349N55 500			DIEPPE	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021323001
			001E0349N55 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			001E0349N55 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	004W4748N21 500			LE CONQUET	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021324001
			004W4748N21 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			004W4748N21 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	002E1251N01 500			LOON PLAGE	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021325001
			002E1251N01 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			002E1251N01 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	003W3047N52 500			QUIMPERLE	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021326001
			003W3047N52 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			003W3047N52 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	001W5848N41 500			S MALO	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021327001
			001W5848N41 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			001W5848N41 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1631.400K	F	002W0647N20 500			S NAZAIRE	MSCO		2K80R3E--	X	19.0		0024	A-E-			031251A	80021328001
			002W0647N20 500						2K80J3E--	X	19.0		0024	A-E-			031251A	002
			002W0647N20 500						2K80H3E--	Y	13.0		0024	A-E-			031251A	003
R	1632.500K	F	007E3848N33 200			STRASBOURG	MSCP		6K00A3E--	Y	17.0		0024	AA--			031251A	80021355001
	1804.400K	F	LE CONQUET	F	003W3047N52	003W3047N52 2000	FCCP		2K80R3E--	X	36.0	ND	0024	A-E-			031251A	80024493001
						003W3047N52 2000			2K80J3E--	X	36.0	ND	0024	A-E-			031251A	002
	1807.400K	F	LE CONQUET	F	003W3047N52	003W3047N52 2000	FCCP		2K80R3E--	X	36.0	ND	0024	A-E-			031251A	80024504001
						003W3047N52 2000			2K80J3E--	X	36.0	ND	0024	A-E-			031251A	002
						003W3047N52 2000			2K80H3E--	Y	30.0	ND	0024	A-E-			031251A	003
	1818.400K	F	S JEAN DE LUZ	F	001W4943N23	001W4943N23 500	FCCV		2K80R3E--	X	26.0	ND	0024	A-E-			031251A	80024588001
						001W4943N23 500			2K80J3E--	X	26.0	ND	0024	A-E-			031251A	002
	1821.400K	F	S JEAN DE LUZ	F	001W4943N23	001W4943N23 500	FCCV		2K80R3E--	X	26.0	ND	0024	A-E-			031251A	80024612001
						001W4943N23 500			2K80J3E--	X	26.0	ND	0024	A-E-			031251A	002
						001W4943N23 500			2K80H3E--	Y	20.0	ND	0024	A-E-			031251A	003

- R	1A	B	4A 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
	1832.400K	F	AGDE	F	003E3243N17	003E3243N17 2000	FCCP		2K80R3E--	X 36.0	ND		0024	A-E-			031251A	80024664001
						003E3243N17 2000			2K80J3E--	X 36.0	ND		0024	A-E-			031251A	002
	1835.400K	F	AGDE	F	003E3243N17	003E3243N17 2000	FCCP		2K80R3E--	X 36.0	ND		0024	A-E-			031251A	80024672001
						003E3243N17 2000			2K80J3E--	X 36.0	ND		0024	A-E-			031251A	002
						003E3243N17 2000			2K80H3E--	Y 30.0	ND		0024	A-E-			031251A	003
R	2165.400K	F	003E3243N17 1000			AGDE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032844001
			003E3243N17 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	008E4641N56 1000			AJACCIO	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032845001
			008E4641N56 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	001W1044N39 1000			ARCACHON	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032846001
			001W1044N39 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	009E2742N42 1000			BASTIA	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032847001
			009E2742N42 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	001W3043N33 1000			BAYONNE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032848001
			001W3043N33 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	001E3450N42 1000			BOULOGNE ALPRE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032849001
			001E3450N42 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	001E0349N55 1000			DIEPPE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032850001
			001E0349N55 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	006E5543N31 1000			GRASSE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032851001
			006E5543N31 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	004W4748N21 1000			LE CONQUET	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032852001
			004W4748N21 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	002E1251N01 1000			LOON PLAGE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032853001
			002E1251N01 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	005E2143N19 1000			MARSEILLE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032854001
			005E2143N19 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	003W3047N52 1000			QUIMPERLE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032855001
			003W3047N52 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	001W5848N41 1000			S MALO	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032856001
			001W5848N41 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
R	2165.400K	F	002W0647N20 1000			S NAZAIRE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032857001
			002W0647N20 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002

- R	1A	B	4A 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
R	2168.400K	F	003E3243N17 1000			AGDE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032989001
			003E3243N17 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			003E3243N17 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	008E4641N56 1000			AJACCIO	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032990001
			008E4641N56 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			008E4641N56 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	001W1044N39 1000			ARCACHON	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032991001
			001W1044N39 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			001W1044N39 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	009E2742N42 1000			BASTIA	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032992001
			009E2742N42 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			009E2742N42 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	001W3043N33 1000			BAYONNE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032993001
			001W3043N33 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			001W3043N33 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	001E3450N42 1000			BOULOGNE ALPRE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032994001
			001E3450N42 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			001E3450N42 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	001E0349N55 1000			DIEPPE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032995001
			001E0349N55 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
									2K80H3E--	Y 20.0			0024	A-E-			031251A	80032995003
R	2168.400K	F	006E5543N31 1000			GRASSE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032996001
			006E5543N31 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			006E5543N31 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	004W4748N21 1000			LE CONQUET	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032997001
			004W4748N21 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			004W4748N21 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	002E1251N01 1000			LOON PLAGE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032998001
			002E1251N01 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			002E1251N01 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	005E2143N19 1000			MARSEILLE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80032999001
			005E2143N19 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			005E2143N19 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	003W3047N52 1000			QUIMPERLE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80033000001
			003W3047N52 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			003W3047N52 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003

- R	1A	B	4A 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
R	2168.400K	F	001W5848N41 1000			S MALO	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80033001001
			001W5848N41 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			001W5848N41 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003
R	2168.400K	F	002W0647N20 1000			S NAZAIRE	MSCP		2K80R3E--	X 26.0			0024	A-E-			031251A	80033002001
			002W0647N20 1000						2K80J3E--	X 26.0			0024	A-E-			031251A	002
			002W0647N20 1000						2K80H3E--	Y 20.0			0024	A-E-			031251A	003

FNL

Finlande
Finland
Finlandia

1632.500K	FNL	M		MMM		BALT SEA BOTHN GF FNL GF		MSCV	6K00A3E--	Y 13.0	ND		0024	A---				80021356001
1846.400K	FNL	HANKO		FNL022E5759N50		BALT SEA FNL GF NO SEA	/015	FCCP	2K80R3E--	X 37.0	ND		0024	A-E-	P		110972A	80024712001
						BALT SEA FNL GF NO SEA			2K80J3E--	X 37.0	ND		0024	A-E-	P		110972A	002
1849.400K	FNL	HANKO		FNL022E5759N50		BALT SEA FNL GF NO SEA	/015	FCCP	2K80R3E--	X 37.0	ND		0024	A-E-	P		110972A	80024733001
						BALT SEA FNL GF NO SEA			2K80J3E--	X 37.0	ND		0024	A-E-	P		110972A	002
						BALT SEA FNL GF NO SEA			2K80H3E--	Y 33.0	ND		0024	A-E-	P		110972A	003

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

G

Royaume-Uni de Grande-Bretagne et d'Irlande du Nord
United Kingdom of Great Britain and Northern Ireland
Reino Unido de Gran Bretana e Irlanda del Norte

1627.500K	G	ABERTAY	G	002W4256N27	002W4256N27	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021264001
1627.500K	G	ALDERNEY	G	002W1549N40	ENGL CHAN/001		FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021265001
1627.500K	G	DUNDEE	G	002W5856N28	002W5856N28	75	FCCV	6K00A3E--	Y	13.0	ND		0024	A-E-				100753A80021266001
1627.500K	G	HARTLAND POINT	G	004W3251N01	004W3251N01	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021267001
1627.500K	G	SPURN	G	000E1353N34	000E1353N34	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021270001
1632.500K	G	BARROWDEEP LSH	G	001E2051N41	001E2051N41	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021357001
1632.500K	G	BREAKSEA LSH	G	003W1857N20	003W1857N20	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021358001
1632.500K	G	CALDY ISLAND	G	004W4151N38	004W4151N38	75	FCCV	6K00A3E--	Y	13.0	ND		0024	A-E-				271054A80021359001
1632.500K	G	COQUET LH	G	001W3255N20	001W3255N20	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021360001
1632.500K	G	CORK LSH	G	001E2451N56	001E2451N56	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021361001
1632.500K	G	G WELSH GS LSH	G	003W0051N27	003W0051N27	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021362001
1632.500K	G	GALLOPER LSH	G	001E5851N44	001E5851N44	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021363001
1632.500K	G	HELWICK LSH	G	004W2551N30	004W2551N30	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021364001
1632.500K	G	KENTISH KNOCK	G	001E4151N39	001E4151N39	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021365001
1632.500K	G	LONGSTONE	G	001W3755N39	001W3755N39	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021366001
1632.500K	G	MUMBLES	G	003W5951N40	003W5951N40	80	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021367001
1632.500K	G	OUTER GABBARD	G	002E0551N59	002E0551N59	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021369001
1632.500K	G	S GOWAN LSH	G	005W0051N30	005W0051N30	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021370001
1632.500K	G	SCARWEATHER LS	G	003W5651N27	003W5651N27	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021371001
1632.500K	G	SHIPWASH LSH	G	001E4252N02	001E4252N02	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021372001
1632.500K	G	SUNK LIGHTSHIP	G	001E3551N51	001E3551N51	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021373001
1632.500K	G	WALTON ON NAZE	G	001E1751N51	001E1751N51	75	FCCV	6K00A3E--	Y	13.0	ND		0024	AA--				031251A80021374001

- R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
	1825.400K	G	WICK	G	003W0658N26	ARCT OCN /020 ATLANT NO/020 NO SEA /020	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024648001
						ARCT OCN /020 ATLANT NO/020 NO SEA /020			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	002
	1828.400K	G	WICK	G	003W0658N26	ARCT OCN ATLANT NO NO SEA	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024657002
						ARCT OCN ATLANT NO NO SEA			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	003
	1832.400K	G	NITON	G	001W1750N35	ENGL CHAN/005	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024665001
						ENGL CHAN/005			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	002
	1835.400K	G	NITON	G	001W1750N35	ENGL CHAN/005	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024673002
						ENGL CHAN/005			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	003
	1839.400K	G	CULLERCOATS	G	001W2855N04	NO SEA /006	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024689001
						NO SEA /006			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	002
	1839.400K	G	LANDS END	G	005W4050N07	ATLANT NO ENGL CHAN/020 IRISH SEA	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024690001
						ATLANT NO ENGL CHAN IRISH SEA			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	002
	1841.000K	G	CULLERCOATS	G	001W2655N02	NO SEA /006	FCCP		6K00A3C--	Y	27.0	ND	0024	A-E-			031251A	80024698001
						NO SEA /006			6K00F1C--	Y	27.0	ND	0024	A-E-			031251A	002
	1842.400K	G	CULLERCOATS	G	001W2655N02	NO SEA /006	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024701002
						NO SEA /006			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	003
	1842.400K	G	LANDS END	G	005W4050N07	ATLANT NO ENGL CHAN/020 IRISH SEA	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024702001

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- R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
	1842.400K	G	LANDS END	G	005W4050N07	ATLANT NO ENGL CHAN IRISH SEA	FCCP		2K80J3E--	X	30.0	ND	0024	A-E-			031251A	80024702002
	1846.400K	G	NO FORELAND	G	001E2551N22	ENGL CHAN/006 NO SEA /006	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024713001
						ENGL CHAN/006 NO SEA /006			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	002
	1849.400K	G	NO FORELAND	G	001E2551N22	ENGL CHAN/006 NO SEA /006	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-			031251A	80024734002
						ENGL CHAN/006 NO SEA /006			2K80J3E--	X	30.0	ND	0024	A-E-			031251A	003

GAB

Gabonaise (République)
Gabonese Republic
Gabonesa (República)

	1813.000K	GAB	LIBREVILLE	GAB009E2500N25	009E2500N25	250	FCCP		6K00B8E--	X	24.0	ND	0618	AA--			031251A	80024532001

GHA

Ghana

	1836.400K	GHA	TAKORADI	GHA001W4504N54	ATLANT /004		FCCP		2K80J3E--	X	24.8	ND	0024	A-E-			031251A	80024674001

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

GRC

Grèce
Greece
Grecia

1801.400K	GRC	KERKYRA	GRC019E5539N37	019E5539N37	1500	FCCP	2K80R3E--	X	33.0	ND	0024	A-E-	P	160974A80024483001
				019E5539N37	1500		2K80J3E--	X	33.0	ND	0024	A-E-	P	160974A 002
				019E5539N37	1500		2K80H3E--	Y	33.0	ND	0024	A-E-	P	160974A 003
1801.400K	GRC	PATRAI	GRC021E4738N14	021E4738N14	100	FCCP	2K80R3E--	X	30.0	ND	0024	A-E-	P	301260A80024484001
				021E4738N14	100		2K80J3E--	X	30.0	ND	0024	A-E-	P	301260A 002
				021E4738N14	100		2K80H3E--	Y	24.0	ND	0024	A-E-	P	301260A 003
1818.400K	GRC	CHIOS	GRC026E0938N22	026E0938N22	100	FCCP	2K80R3E--	X	26.0	ND	0024	A-E-	A	301260A80024589001
				026E0938N22	100		2K80J3E--	X	26.0	ND	0024	A-E-	A	301260A 002
1821.400K	GRC	CHIOS	GRC026E0938N22	026E0938N22	100	FCCP	2K80R3E--	X	26.0	ND	0024	A-E-	A	301260A80024613001
				026E0938N22	100		2K80J3E--	X	26.0	ND	0024	A-E-	A	301260A 002
				026E0938N22	100		2K80H3E--	Y	20.0	ND	0024	A-E-	A	301260A 003
1821.400K	GRC	LIMNOS	GRC025E1139N55	025E1139N55	1500	FCCP	2K80R3E--	X	33.0	ND	0024	A-E-	P	160974A80024614001
				025E1139N55	1500		2K80J3E--	X	33.0	ND	0024	A-E-	P	160974A 002
				025E1139N55	1500		2K80H3E--	Y	33.0	ND	0024	A-E-	P	160974A 003
1825.400K	GRC	RHODOS	GRC028E1536N26	028E1536N26	100	FCCP	2K80R3E--	X	26.0	ND	0024	A-E-	A	160975A80024649001
				028E1536N26	100		2K80J3E--	X	26.0	ND	0024	A-E-	A	160975A 002
				028E1536N26	100		2K80H3E--	Y	20.0	ND	0024	A-E-	A	160975A 003

GUI

Guinée (République de)
Guinea (Republic of)
Guinea (República de)

1813.000K	GUI	CONAKRY	GUI013W4309N31	013W4309N31	500	FCCP	6K00A3E--	Y	24.0	ND	0719	A-E-		031251A80024533001
2167.000K	GUI	M	MMM	ATLANT		MSCP	6K00A3E--	Y	17.0	ND	0024	AA--		031251A80032949001

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

HOL

Pays-Bas (Royaume des)
Netherlands (Kingdom of the)
Países Bajos (Reino de los)

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  1625.900K HOL NO HINDER LSH    HOL002E3351N39 002E3351N39  100 FCCO   2K80R3E-- X 20.8 ND      0024 A-E-        031251A80021245001
                                                002E3351N39  100        2K80J3E-- X 20.8 ND      0024 A-E-        031251A         002

R 1625.900K HOL 002E3351N39  100                NO HINDER LSH     MSCO   2K80R3E-- X 20.8         0024 A-E-        031251A80021246001
                002E3351N39  100                                          2K80J3E-- X 20.8         0024 A-E-        031251A         002

  1625.900K HOL VLISSINGEN       HOL003E3751N26 003E3751N26  100 FCCO   2K80R3E-- X 20.8 ND      0024 A-E-        031251A80021248001
                                                003E3751N26  100        2K80J3E-- X 20.8 ND      0024 A-E-        031251A         002

R 1625.900K HOL 003E3751N26  100                VLISSINGEN        MSCO   2K80R3E-- X 20.8         0024 A-E-        031251A80021247001
                003E3751N26  100                                          2K80J3E-- X 20.8         0024 A-E-        031251A         002

R 1627.500K HOL 002E3351N39  100                NO HINDER LSH     MSCO   6K00A3E-- Y 14.8         0024 AA--        031251A80021271001

R 1627.500K HOL 003E3751N26  100                VLISSINGEN        MSCO   6K00A3E-- Y 14.8         0024 AA--        031251A80021272001

  1628.900K HOL NO HINDER LSH    HOL002E3351N39 002E3351N39  100 FCCO   2K80R3E-- X 20.8 ND      0024 A-E-        031251A80021287001
                                                002E3351N39  100        2K80J3E-- X 20.8 ND      0024 A-E-        031251A         002
                                                002E3351N39  100        2K80H3E-- Y 14.8 ND      0024 A-E-        031251A         003

R 1628.900K HOL 002E3351N39  100                NO HINDER LSH     MSCO   2K80R3E-- X 20.8         0024 A-E-        031251A80021288001
                002E3351N39  100                                          2K80J3E-- X 20.8         0024 A-E-        031251A         002

  1628.900K HOL VLISSINGEN       HOL003E3751N26 003E3751N26  100 FCCO   2K80R3E-- X 20.8 ND      0024 A-E-        031251A80021290001
                                                003E3751N26  100        2K80J3E-- X 20.8 ND      0024 A-E-        031251A         002
                                                003E3751N26  100        2K80H3E-- Y 14.8 ND      0024 A-E-        031251A         003

R 1628.900K HOL 003E3751N26  100                VLISSINGEN        MSCO   2K80R3E-- X 20.8         0024 A-E-        031251A80021289001
                003E3751N26  100                                          2K80J3E-- X 20.8         0024 A-E-        031251A         002

R 2160.000K HOL ATLANT    /030                  SCHEVENINGEN      MSCP   6K00A3E-- Y 19.0         0024 AA--        031251A80032629001
                BALT SEA /030
                NO SEA    /030

R 2161.400K HOL 004E3652N28 3000                SCHEVENINGEN      MSCP   2K80R3E-- X 25.1         0024 A-E-        031251A80032661001
                004E3652N28 3000                                          2K80J3E-- X 25.1         0024 A-E-        031251A         002

R 2161.500K HOL 004E3552N28 1000                IJMUIDEN          MSCP   28OHF1B-- Y 23.0         0024 A-E- P      100677A80032668001
```

- R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

Italie
Italy
Italia

1633.400K	I	NAPOLI	I	014E1640N49	MEDIT	/003	FCCP		2K80R3E--	X	23.0	ND	0024	A-E-			040154A80021382001	
					MEDIT	/003			2K80J3E--	X	23.0	ND	0024	A-E-			040154A	002
1635.000K	I	NAPOLI	I	014E1640N49	MEDIT	/003	FCCP		6K00A3E--	Y	17.0	ND	0024	A-EZ			040154A80021406001	
1800.000K	I	ORTONA	I	014E2442N21	ADRIATIC	/003	FCCV		2K80J3E--	X	17.0	ND	0024	A-E-	A		060679A80024477001	
1800.400K	I	MESSINA	I	015E3338N11	MEDIT	/003	FCCP		2K80R3E--	X	23.0	ND	0024	A-E-	P		291174A80024482001	
					MEDIT	/003			2K80J3E--	X	23.0	ND	0024	A-E-	P		291174A	002
					MEDIT	/003			2K80H3E--	Y	17.0	ND	0024	A-E-	P		291174A	003
1804.400K	I	PT TORRES	I	008E2440N50	MEDIT	/005	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-	P		181272A80024494001	
					MEDIT	/005			2K80J3E--	X	30.0	ND	0024	A-E-	P		181272A	002
1806.000K	I	PT EMPEDOCLE	I	013E3237N14	013E3237N14	300	FCCP		5K00A3E--	Y	17.0		0024	A-E-			040154A80024498001	
1806.000K	I	PT TORRES	I	008E2440N50	MEDIT	/005	FCCP		6K00A3E--	Y	24.0	ND	0024	A-E-	P		181272A80024499001	
1807.400K	I	PT TORRES	I	008E2440N50	MEDIT	/005	FCCP		2K80R3E--	X	30.0	ND	0024	A-E-	P		181272A80024505001	
					MEDIT	/005			2K80J3E--	X	30.0	ND	0024	A-E-	P		181272A	002
					MEDIT	/005			2K80H3E--	Y	24.0	ND	0024	A-E-	P		181272A	003
1809.400K	I	TRAPANI	I	012E3038N01	MEDIT	/003	FCCP		2K80R3E--	X	23.0	ND	0024	A-E-			210257A80024506001	
					MEDIT	/003			2K80J3E--	X	23.0	ND	0024	A-E-			210257A	002
1811.000K	I	CATANIA	I	015E0637N30	MEDIT	/003	FCCP		5K00A3E--	Y	17.0		0024	A-E-			040154A80024514001	
1811.000K	I	GRADO	I	013E2545N41	MEDIT	/003	FCCV		5K00A3E--	Y	17.0		0024	A-E-			210257A80024516001	
1811.000K	I	TRAPANI	I	012E3038N01	MEDIT	/003	FCCV		5K00A3E--	Y	17.0		0024	A-E-			210257A80024518001	
1812.400K	I	TRAPANI	I	012E3038N01	MEDIT	/003	FCCP		2K80R3E--	X	23.0	ND	0024	A-E-			210257A80024524001	
					MEDIT	/003			2K80J3E--	X	23.0	ND	0024	A-E-			210257A	002
					MEDIT	/003			2K80H3E--	Y	17.0	ND	0024	A-E-			210257A	003
1846.400K	I	TRAPANI	I	012E3038N01	MEDIT	/003	FCCP		2K80R3E--	X	23.0	ND	0024	A-E-	A		291174A80024714001	
					MEDIT	/003			2K80J3E--	X	23.0	ND	0024	A-E-	A		291174A	002
1846.400K	I	TRIESTE	I	013E4645N41	MEDIT	/003	FCCP		2K80R3E--	X	23.0	ND	0024	A-E-			210257A80024715001	
					MEDIT	/003			2K80J3E--	X	23.0	ND	0024	A-E-			210257A	002
1848.000K	I	PT EMPEDOCLE	I	013E3237N14	MEDIT	/003	FCCV		5K00A3E--	Y	17.0	ND	0024	A-E-			210257A80024726001	

- R	1A	B	4A 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
	1848.000K	I	TRIESTE	I	013E4645N41	MEDIT /003	FCCV		6K00A3E--	Y 17.0	ND		0024	A-E-			210257A	80024728001
	1849.400K	I	TRAPANI	I	012E3038N01	MEDIT /003	FCCP		2K80R3E--	X 23.0	ND		0024	A-E-	P		291174A	80024735001
						MEDIT /003			2K80J3E--	X 23.0	ND		0024	A-E-	P		291174A	002
						MEDIT /003			2K80H3E--	Y 17.0	ND		0024	A-E-	P		291174A	003
	1849.400K	I	TRIESTE	I	013E4645N41	MEDIT /003	FCCP		2K80R3E--	X 23.0	ND		0024	A-E-			210257A	80024736001
						MEDIT /003			2K80J3E--	X 23.0	ND		0024	A-E-			210257A	002
						MEDIT /003			2K80H3E--	Y 17.0	ND		0024	A-E-			210257A	003

IRL

Irlande
Ireland
Irlanda

	1825.400K	IRL	VALENTIA	IRL010W2151N56	010W2151N56	250	FCCP		2K80R3E--	X 24.5	ND		0024	A-E-			031251A	80024650001
					010W2151N56	250			2K80J3E--	X 24.5	ND		0024	A-E-			031251A	002
	1828.400K	IRL	VALENTIA	IRL010W2151N56	010W2151N56	250	FCCP		2K80R3E--	X 24.5	ND		0024	A-E-			031251A	80024658001
					010W2151N56	250			2K80J3E--	X 24.5	ND		0024	A-E-			031251A	002
					010W2151N56	250			2K80H3E--	Y 18.5	ND		0024	A-E-			031251A	003
	1839.400K	IRL	MALIN HEAD	IRL007W2155N22	007W2155N22	600	FCCP		2K80R3E--	X 33.0	ND		0024	A-E-			031251A	80024691001
					007W2155N22	600			2K80J3E--	X 33.0	ND		0024	A-E-			031251A	002
	1842.400K	IRL	MALIN HEAD	IRL007W2155N22	007W2155N22	600	FCCP		2K80R3E--	X 33.0	ND		0024	A-E-			031251A	80024703001
					007W2155N22	600			2K80J3E--	X 33.0	ND		0024	A-E-			031251A	002
					007W2155N22	600			2K80H3E--	Y 27.0	ND		0024	A-E-			031251A	003

ISR

Israël (Etat d')
Israel (State of)
Israel (Estado de)

R	2160.000K	ISR	035E0332N49	500		HAIFA		MSCP		6K00A3E--	Y 17.0		0024	A-E-	A		020452A	80032638001
R	2161.400K	ISR	035E0332N49	500		HAIFA		MSCP		2K80R3E--	X 23.0		0024	A-E-	A		020452A	80032662001
			035E0332N49	500						2K80J3E--	X 23.0		0024	A-E-	A		020452A	002
			035E0332N49	500						2K80H3E--	Y 17.0		0024	A-E-	A		020452A	003

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

MDG

Madagascar (République démocratique de)
Madagascar (Democratic Republic of)
Madagascar (República Democrática de)

	1814.400K	MDG	ANTALAHA	MDG050E1614S53	050E1614S53	300	FCCP	2K80R3E--	X	20.0	090	0417	A-E-	031251A80024543001
	1814.400K	MDG	DIEGO SUAREZ	MDG049E1712S17	049E1712S17	300	FCCP	2K80R3E--	X	23.0	000	0422	A-E-	031251A80024544001
	1814.400K	MDG	FT DAUPHIN	MDG047E0425S01	047E0425S01	300	FCCP	2K80R3E--	X	23.0	160	0417	A-E-	031251A80024545001
	1814.400K	MDG	MAINTIRANO	MDG044E0118S03	044E0118S03	300	FCCP	2K80R3E--	X	23.0	270	0417	A-E-	031251A80024546001
	1814.400K	MDG	MAJUNGA	MDG046E1815S42	046E1815S42	300	FCCP	2K80R3E--	X	23.0	320	0024	A-E-	031251A80024547001
	1814.400K	MDG	MANAKARA	MDG048E0022S07	048E0022S07	300	FCCP	2K80R3E--	X	20.0	100	0417	A-E-	031251A80024548001
	1814.400K	MDG	MANANJARY	MDG048E2021S13	048E2021S13	300	FCCP	2K80R3E--	X	20.0	100	0417	A-E-	031251A80024549001
	1814.400K	MDG	MORONDAVA	MDG044E1820S17	044E1820S17	300	FCCP	2K80R3E--	X	23.0	270	0417	A-E-	031251A80024550001
	1814.400K	MDG	NOSSI BE	MDG048E1613S24	048E1613S24	300	FCCP	2K80R3E--	X	20.0	320	0417	A-E-	031251A80024551001
	1814.400K	MDG	TAMATAVE	MDG049E2418S08	049E2418S08	300	FCCP	2K80R3E--	X	23.0	100	0024	A-E-	031251A80024552001
	1814.400K	MDG	TULEAR	MDG043E4123S21	043E4123S21	300	FCCP	2K80R3E--	X	23.0	260	0417	A-E-	031251A80024553001
R	2168.400K	MDG	049E1712S17	300	DIEGO SUAREZ		MSCP	2K80R3E--	X	17.0		0024	A-E-	031251A80033003001
			049E1712S17	300				2K80J3E--	X	17.0		0024	A-E-	031251A 002
			049E1712S17	300				2K80H3E--	Y	17.0		0024	A-E-	031251A 003
R	2168.400K	MDG	049E2418S08	300	TAMATAVE		MSCP	2K80R3E--	X	17.0		0024	A-E-	031251A80033004001
			049E2418S08	300				2K80J3E--	X	17.0		0024	A-E-	031251A 002
			049E2418S08	300				2K80H3E--	Y	17.0		0024	A-E-	031251A 003

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

MDR

Madère
Madeira
Madera

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  1827.000K POR FUNCHAL          MDR016W5432N38 ATLANT NO/001    FCCO   6K00A3E-- Y 17.0 ND      0024 AA--          031251A80024656001
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MRC

Maroc (Royaume du)
Morocco (Kingdom of)
Marruecos (Reino de)

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  2166.500K MRC KENITRA          MRC006W1634N18 ATLANT   /010    FCCO   1K70J7B-- X 40.0 ND      0024 A-E- P        070471A80032929001
                                                ATLANT   /010           1K24F1B-- Y 34.0 ND      0024 A-E- P        070471A        002
R 2167.000K MRC 009W3530N21  200               AGADIR           MSCP   6K00A3E-- Y 17.0         0024 A-E- A        170461A80032950001
R 2167.000K MRC 009W1432N18  200               SAFI             MSCP   6K00A3E-- Y 17.0         0024 A-E- A        170461A80032951001
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NOR

Norvège
Norway
Noruega

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R 1632.500K NOR 006E1262N29  150               AALESUND         MSCP   6K00A3E-- Y 20.0         0024 A-E- P        030768A80021376001
R 1632.500K NOR 008E0858N08  150               KRISTIANSANDS    MSCP   6K00A3E-- Y 20.0         0024 A-E- P        030768A80021377001
R 1632.500K NOR 018E5769N39  150               TROMSOE          MSCP   6K00A3E-- Y 20.0         0024 A-E- P        030768A80021378001
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- R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
R	1633.900K	NOR	006E1262N29	150		AALESUND	MSCP		2K80R3E--	X 26.0			0024	A-E-	P		030768A	80021384001
			006E1262N29	150					2K80J3E--	X 26.0			0024	A-E-	P		030768A	002
			006E1262N29	150					2K80H3E--	Y 20.0			0024	A-E-	P		030768A	003
R	1633.900K	NOR	008E0858N08	150		KRISTIANSANDS	MSCP		2K80R3E--	X 26.0			0024	A-E-	P		030768A	80021385001
			008E0858N08	150					2K80J3E--	X 26.0			0024	A-E-	P		030768A	002
			008E0858N08	150					2K80H3E--	Y 20.0			0024	A-E-	P		030768A	003
R	1633.900K	NOR	018E5769N39	150		TROMSOE	MSCP		2K80R3E--	X 26.0			0024	A-E-	P		030768A	80021386001
			018E5769N39	150					2K80J3E--	X 26.0			0024	A-E-	P		030768A	002
			018E5769N39	150					2K80H3E--	Y 20.0			0024	A-E-	P		030768A	003
	1804.400K	NOR	TROMSOE SKJERV		NOR021E0070N02	021E0070N02	500	FCCP	2K80J3E--	X 26.0	ND		0024	A-E-	P		261156A	80024495001
						021E0070N02	500		2K80H3E--	Y 20.0	ND		0024	A-E-	P		261156A	002

POL

Pologne (République populaire de)
Poland (People's Republic of)
Polonia (República Popular de)

	1813.400K	POL	GDANSK		POL018E4054N20	BALT SEA /003		FCCV	2K80R3E--	X 20.0	ND		0024	A-E-	P		191173A	80024538001
						BALT SEA /003			2K80J3E--	X 20.0	ND		0024	A-E-	P		191173A	002
						BALT SEA /003			2K80H3E--	Y 14.0	ND		0024	A-E-	P		191173A	003
	1819.400K	POL	GDYNIA		POL018E3254N32	018E3254N32	2000	FCCP	2K80R3E--	X 37.0	ND		0024	A-E-	P		050376A	80024602001
						018E3254N32	2000		2K80J3E--	X 37.0	ND		0024	A-E-	P		050376A	002
						018E3254N32	2000		2K80H3E--	Y 31.0	ND		0024	A-E-	P		050376A	003

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

POR

Portugal

1834.000K	POR	AVEIRO	POR008W3740N37	008W3740N37	500	FCCP	6K00A3E--	Y	22.3	ND	0024	A-E-			010768A80024669001
1834.000K	POR	LISBOA	POR009W1438N44	ATLANT	/006	FCCP	6K00A3E--	Y	25.4		0024	AA--			031251A80024670001
1848.000K	POR	MATOZINHOS	POR008W3841N11	ATLANT	/002	FCCP	6K00A3E--	Y	17.0	ND	0024	AA--			031251A80024729001
1848.000K	POR	OLHAO	POR007W5037N02	007W5037N02	350	FCCP	6K00A3E--	Y	17.0	ND	0024	A-E-			110570A80024730001
1848.000K	POR	PORTIMAO	POR008W3237N08	ATLANT	/002	FCCP	6K00A3E--	Y	17.0	ND	0024	AA--			031251A80024731001

REU

Réunion (Département français de la)
Reunion (French Department of)
Reunión (Departamento francés de la)

1811.400K	F	S DENIS	REU055E3620S54	055E3620S54	500	FCCP	2K80R3E--	X	26.0	ND	0024	A-E-			031251A80024520001
				055E3620S54	500		2K80J3E--	X	26.0	ND	0024	A-E-			031251A 002
1814.400K	F	S DENIS	REU055E3620S54	055E3620S54	500	FCCP	2K80R3E--	X	26.0	ND	0024	A-E-			031251A80024554001
				055E3620S54	500		2K80J3E--	X	26.0	ND	0024	A-E-			031251A 002
				055E3620S54	500		2K80H3E--	Y	20.0	ND	0024	A-E-			031251A 003
R 2165.400K	F	055E2720S51 1000		S DENIS		MSCP	2K80R3E--	X	26.0		0024	A-E-			031251A80032860001
		055E2720S51 1000					2K80J3E--	X	26.0		0024	A-E-			031251A 002
R 2168.400K	F	055E2720S51 1000		S DENIS		MSCP	2K80R3E--	X	26.0		0024	A-E-			031251A80033005001
		055E2720S51 1000					2K80J3E--	X	26.0		0024	A-E-			031251A 002
		055E2720S51 1000					2K80H3E--	Y	20.0		0024	A-E-			031251A 003

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

ROU

Roumanie (République socialiste de)
Romania (Socialist Republic of)
Rumania (República Socialista de)

1625.900K	ROU	MOSNENI	ROU028E4044N10	BLACK SEA/001	FCCV	2K80R3E--	X	19.0	ND	0024	A-E-		250559A80021249001
				BLACK SEA/001		2K80J3E--	X	19.0	ND	0024	A-E-		250559A 002
1628.900K	ROU	MOSNENI	ROU028E4044N10	BLACK SEA/001	FCCV	2K80R3E--	X	19.0	ND	0024	A-E-		250559A80021291001
				BLACK SEA/001		2K80J3E--	X	19.0	ND	0024	A-E-		250559A 002
				BLACK SEA/001		2K80H3E--	Y	13.0	ND	0024	A-E-		250559A 003

S

Suède
Sweden
Suecia

2165.400K	S	GLUMSLOEV	S 012E4855N56	KATTEGAT /001	FCCR	2K80R3E--	X	25.1	ND	0024	A-E-	A	280962A80032861001
				KATTEGAT /001		2K80J3E--	X	25.1	ND	0024	A-E-	A	280962A 002
2168.400K	S	GLUMSLOEV	S 012E4855N56	KATTEGAT /001	FCCR	2K80R3E--	X	25.1	ND	0024	A-E-	A	280962A80033006001
				KATTEGAT /001		2K80J3E--	X	25.1	ND	0024	A-E-	A	280962A 002
				KATTEGAT /001		2K80H3E--	Y	19.0	ND	0024	A-E-	A	280962A 003

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

SEN

Sénégal (République du)
Senegal (Republic of)
Senegal (República del)

1631.400K	SEN KAOLACK	SEN016W0514N08	ATLANT	/001	FCCV	2K80R3E--	X	13.0	ND	0809	A-E-		230957A	80021329	001
			ATLANT	/001		2K80R3E--	X	13.0	ND	1112	A-E-		230957A		002
			ATLANT	/001		2K80R3E--	X	13.0	ND	1415	A-E-		230957A		003
			ATLANT	/001		2K80R3E--	X	13.0	ND	1718	A-E-		230957A		004
			ATLANT	/001		2K80J3E--	X	13.0	ND	0809	A-E-		230957A		005
			ATLANT	/001		2K80J3E--	X	13.0	ND	1112	A-E-		230957A		006
			ATLANT	/001		2K80J3E--	X	13.0	ND	1415	A-E-		230957A		007
			ATLANT	/001		2K80J3E--	X	13.0	ND	1718	A-E-		230957A		008
			ATLANT	/001		2K80H3E--	Y	13.0	ND	0809	A-E-		230957A		009
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1112	A-E-		230957A		010
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1415	A-E-		230957A		011
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1718	A-E-		230957A		012
1631.400K	SEN S LOUIS	SEN016W3015N59	ATLANT	/001	FCCV	2K80R3E--	X	13.0	ND	0809	A-E-		200576A	80021330	001
			ATLANT	/001		2K80R3E--	X	13.0	ND	1112	A-E-		200576A		002
			ATLANT	/001		2K80R3E--	X	13.0	ND	1415	A-E-		200576A		003
			ATLANT	/001		2K80R3E--	X	13.0	ND	1718	A-E-		200576A		004
			ATLANT	/001		2K80J3E--	X	13.0	ND	0809	A-E-		200576A		005
			ATLANT	/001		2K80J3E--	X	13.0	ND	1112	A-E-		200576A		006
			ATLANT	/001		2K80J3E--	X	13.0	ND	1415	A-E-		200576A		007
			ATLANT	/001		2K80J3E--	X	13.0	ND	1718	A-E-		200576A		008
			ATLANT	/001		2K80H3E--	Y	13.0	ND	0809	A-E-		200576A		009
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1112	A-E-		200576A		010
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1415	A-E-		200576A		011
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1718	A-E-		200576A		012
1631.400K	SEN ZIGUINCHOR	SEN016W1612N35	ATLANT	/001	FCCV	2K80R3E--	X	13.0	ND	0809	A-E-		120661A	80021331	001
			ATLANT	/001		2K80R3E--	X	13.0	ND	1112	A-E-		120661A		002
			ATLANT	/001		2K80R3E--	X	13.0	ND	1718	A-E-		120661A		003
			ATLANT	/001		2K80J3E--	X	13.0	ND	0809	A-E-		120661A		004
			ATLANT	/001		2K80J3E--	X	13.0	ND	1112	A-E-		120661A		005
			ATLANT	/001		2K80J3E--	X	13.0	ND	1718	A-E-		120661A		006
			ATLANT	/001		2K80H3E--	Y	13.0	ND	0809	A-E-		120661A		007
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1112	A-E-		120661A		008
			ATLANT	/001		2K80H3E--	Y	13.0	ND	1718	A-E-		120661A		009
1814.400K	SEN DAKAR	SEN017W1714N45	ATLANT	/010	FCCP	2K80R3E--	X	37.0	ND	0820	A-E-	P	200576A	80024555	001
			ATLANT	/010		2K80J3E--	X	37.0	ND	0820	A-E-	P	200576A		002
			ATLANT	/010		2K80H3E--	Y	37.0	ND	0820	A-E-	P	200576A		003

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.
1814.400K	SEN	S LOUIS		SEN016W3015N59		ATLANT /005	FCCV		2K80R3E--	X	13.0	ND	0809	A-E-			031251A	80024556001
						ATLANT /005			2K80R3E--	X	13.0	ND	1112	A-E-			031251A	002
						ATLANT /005			2K80R3E--	X	13.0	ND	1415	A-E-			031251A	003
						ATLANT /005			2K80R3E--	X	13.0	ND	1718	A-E-			031251A	004
						ATLANT /005			2K80J3E--	X	13.0	ND	0809	A-E-			031251A	005
						ATLANT /005			2K80J3E--	X	13.0	ND	1112	A-E-			031251A	006
						ATLANT /005			2K80J3E--	X	13.0	ND	1415	A-E-			031251A	007
						ATLANT /005			2K80J3E--	X	13.0	ND	1718	A-E-			031251A	008
						ATLANT /005			2K80H3E--	Y	13.0	ND	0809	A-E-			031251A	009
						ATLANT /005			2K80H3E--	Y	13.0	ND	1112	A-E-			031251A	010
						ATLANT /005			2K80H3E--	Y	13.0	ND	1415	A-E-			031251A	011
						ATLANT /005			2K80H3E--	Y	13.0	ND	1718	A-E-			031251A	012
R 2168.400K	SEN	017W1714N45	200			DAKAR	MSCP		2K80R3E--	X	17.0		0024	A-E-			031251A	80033007001
		017W1714N45	200						2K80J3E--	X	17.0		0024	A-E-			031251A	002
		017W1714N45	200						2K80H3E--	Y	17.0		0024	A-E-			031251A	003

TGO

Togolaise (République)
Togolese Republic
Togolesa (República)

1813.000K	TGO	LOME		TG0001E1206N07		001E1206N07	400	FC	8K00A3E--	Y	20.0	ND	0024	AA--			031251A	80024536001
2167.000K	TGO	M		MMM		ATLANT		MSCP	6K00A3E--	Y	17.0	ND	0024	AA--			031251A	80032954001

TUN

Tunisie
Tunisia
Túnez

1821.400K	TUN	TUNIS		TUN010E0636N49		MEDIT /003		FCCP	2K80R3E--	X	24.8	ND	0619	A-E-			031251A	80024615001

- / R	1A	B	4A / 4E or (4C + 4D)	4B	4C	5A or 5D or (5E+5F) / 5A	6	7B	7A	8A	9A	9G	10B	13A	13B1	13B2	2A/B/D	ID No.

TUR

Turquie
Turkey
Turquía

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1850.000K TUR CANAKKALE      TUR026E2440N08 026E2440N08  250 FCCR   6K00A3E-- Y 21.8 ND     0024 A-E- P     100653A80024754001
                                            026E2440N08  250        400HA2B-- Y 21.8 ND     0024 A-E- P     100653A         002
                                            026E2440N08  250        100HA1A-- X 21.8 ND     0024 A-E- P     100653A         003

1850.000K TUR MERSIN         TUR034E3636N49 MEDIT     /010  FCCR   100HA1A-- X 30.0 ND     0024 A-E- P     110375A80024755001
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YUG

Yougoslavie (République socialiste fédérative de)
Yugoslavia (Socialist Federal Republic of)
Yugoslavia (República Socialista Federativa de)

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R 2160.000K YUG ADRIATIC /003                RIJEKA          MSCO   6K00A3E-- Y 20.0        0024 AA--       031251A80032653001
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REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA	FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		ARS		**Arabie saoudite (Royaume d') Saudi Arabia (Kingdom of) Arabia Saudita (Reino de)**						
1919	ARS	DAMMAMRADIO 050E06 26N26	FC CP HZG	0000-2400 DUPLEX	2K70J3EJN	X 37.0 dBW	ND	050E06 26N26 300 km	1825.0000 kHz	
		BEL		**Belgique Belgium Bélgica**						
2194	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1818.4000 kHz	152
2195	BEL	OOSTENDE RADIO 002E48 51N11	FC CP OST	0000-2400 DUPLEX	2K99R3E	X 37.0 dBW	ND	002E48 51N11 500 km	1821.4000 kHz	152
1808	BEL	OOSTENDE 002E58 51N15	FC CO OSN	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	002E58 51N15 500 km	1831.0000 kHz	
1810	BEL	BRUGGE 003E15 51N12	FC CO OSB	0000-2400 DUPLEX	304HF1BCN	X 30.0 dBW	ND	003E15 51N12 500 km	1831.0000 kHz	
		D		**Allemagne ((République fédérale d') Germany (Federal Republic of) Alemania (República Federal de)**						
1785	D	BAD BRAMSTEDT 009E56 53N56	FC CO DEH	0000-2400 SIMPLEX	150HF1B	X 30.0 dBW	ND	007E30 54N20 150 km	1635.0000 kHz 2000 kHz	
1763	D	NORDDEICH RADIO 007E12 53N38	FC CP	0000-2400 DUPLEX	2K70J3EJN	X 30.0 dBW	ND	008E10 53N00 010E30 58N15 004E30 58N20 001W00 55N40 000W30 51N00 000E50 49N40	1800.4000 kHz 2000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
				Danemark **Denmark** **Dinamarca**							
DNK											
2055	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33	350 km	1804.4000 kHz	
2056	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33	350 km	1807.4000 kHz	
2057	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33	350 km	1811.4000 kHz	
2058	DNK	BLAAVAND 008E07 55N33	FC CP OXB	0000-2400 DUPLEX	2K80J3E	X 33.0 dBW	ND	008E07 55N33	350 km	1814.4000 kHz	
				France **Francia**							
F											
1869	F	LE CONQUET 004W44 48N20	FC CP FFU	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	004W44 48N20	1200 km	1807.4000 kHz	1278
1877	F	QUIMPERLE 003W30 47N52	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	003W30 47N52	500 km	1807.4000 kHz	1280
1884	F	ARCACHON 001W10 44N39	FC CP FFC	0000-2400 DUPLEX	2K80J3E	X 34.8 dBW	ND	001W10 44N39	1200 km	1821.4000 kHz	1284
1891	F	GRASSE 006E55 43N40	FC CP FF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	006E55 43N40	500 km	1835.4000 kHz	1285

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		FNL				**Finlande Finland Finlandia**					
426	FNL	HANKO 022E57 59N50	FC CP OFI	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	022E57 59N50	500 km	1846.4000 kHz 1700 kHz	
427	FNL	HANKO 022E57 59N50	FC CP OFI	0000-2400 DUPLEX	2K70J3E	X 37.0 dBW	ND	022E57 59N50	500 km	1849.4000 kHz 1700 kHz	
		G				**Royaume-Uni de Grande-Bretagne et d'Irlande du Nord United Kingdom of Great Britain and Northern Ireland Reino Unido de Gran Bretana e Irlanda del Norte**					
180	G	HARTLAND COASTGUARD 004W28 50N59	FC OT HARTLAND	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	004W28 50N59	180 km	1627.5000 kHz	410
210	G	LUNDY SOUTH LSTN 004W39 51N09	FC OT LUNDYSOU	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004W39 51N09	150 km	1627.5000 kHz	411
199	G	COQUET LSTN 001W32 55N20	FC OT COQUET	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001W32 55N20	150 km	1632.5000 kHz	411
202	G	FLATHOLM LSTN 003W07 51N22	FC OT FLATHOLM	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	003W07 51N22	150 km	1632.5000 kHz	411
204	G	HELWICK LSTN 004W25 51N30	FC OT HELWICK	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	004W25 51N30	150 km	1632.5000 kHz	411
209	G	LONGSTONE LSTN 001W36 55N38	FC OT LONGSTON	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	001W36 55N38	150 km	1632.5000 kHz	411
213	G	OUTER GABBARD LSTN 002E04 51N59	FC OT OUTERGAB	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	002E04 51N59	150 km	1632.5000 kHz	411
216	G	SCARWEATHER LSTN 003W56 51N26	FC OT SCAREWEA	0000-2400 SIMPLEX	2K80J3EJN	X 20.0 dBW	ND	003W56 51N26	150 km	1632.5000 kHz	411

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
221	G	SWANSEA COASTGUARD 003W58 51N34	FC OT SWANSEA	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	003W58 51N34	180 km	1632.5000 kHz	411
222	G	THAMES COASTGUARD 001E17 51N51	FC OT THAMES	0000-2400 SIMPLEX	2K80J3EJN	X 24.0 dBW	ND	001E17 51N51	180 km	1632.5000 kHz	411
173	G	WICK RADIO 003W06 58N26	FC CP WICK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	003W06 58N26	320 km	1828.4000 kHz	395
156	G	NITON RADIO 001W18 50N35	FC CP NITON	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W18 50N35	320 km	1832.4000 kHz 2000 kHz	395
140	G	CULLERCOATS RADIO 001W28 55N04	FC CP CULLERCO	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001W28 55N04	320 km	1842.4000 kHz 2000 kHz	395
158	G	NORTH FORELAND RADIO 001E25 51N22	FC CP NORTHFOR	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	001E25 51N22	120 km	1846.4000 kHz 2000 kHz	395

GRC

Grèce
Greece
Grecia

1983	GRC	KERKYRA 019E54 39N37	FC CP SVK41	0000-2400 DUPLEX	2K70J3EJN	X 33.0 dBW	ND	019E54 39N37	370 km	1801.4000 kHz	1300
1989	GRC	CHIOS 026E08 38N19	FC CP SVX41	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	026E08 38N19	370 km	1818.4000 kHz	1300
1990	GRC	CHIOS 026E08 38N19	FC CP SVX42	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	026E08 38N19	370 km	1821.4000 kHz	1300
1987	GRC	RHODOS 028E12 36N26	FC CP SVR41	0000-2400 DUPLEX	2K70J3EJN	X 26.0 dBW	ND	028E12 36N26	370 km	1825.4000 kHz	1300

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
HOL				**Pays-Bas (Royaume des) Netherlands (Kingdom of the) Países Bajos (Reino de los)**							
438	HOL	VLISSINGEN 003E37 51N27	FC CP	0000-2400 SIMPLEX	2K80J3EJN	X 26.0 dBW	ND	003E37 51N27	100 km	1628.9000 kHz	
I				**Italie Italy Italia**							
787	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	014E14 40N50	400 km	1633.4000 kHz	
788	I	NAPOLI RADIO 014E14 40N50	FC CP IQH	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	014E14 40N50	400 km	1633.4000 kHz	
783	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	015E33 38N11	400 km	1800.4000 kHz	
784	I	MESSINA RADIO 015E33 38N11	FC CP IDF	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	015E33 38N11	400 km	1800.4000 kHz	
799	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E23 40N50	400 km	1804.4000 kHz	
800	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E23 40N50	400 km	1804.4000 kHz	
801	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	008E23 40N50	400 km	1807.4000 kHz	
802	I	PORTO TORRES RADIO 008E23 40N50	FC CP IZN	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	008E23 40N50	400 km	1807.4000 kHz	
815	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01	400 km	1809.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
816	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01	400 km	1809.4000 kHz	
817	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01	400 km	1812.4000 kHz	
818	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01	400 km	1812.4000 kHz	
825	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E46 45N40	400 km	1846.4000 kHz	
826	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E46 45N40	400 km	1846.4000 kHz	
819	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	012E30 38N01	400 km	1849.4000 kHz	
820	I	TRAPANI RADIO 012E30 38N01	FC CP IQM	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	012E30 38N01	400 km	1849.4000 kHz	
827	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80R3E	X 30.0 dBW	ND	013E46 45N40	400 km	1849.4000 kHz	
828	I	TRIESTE RADIO 013E46 45N40	FC CP IQX	0000-2400 DUPLEX	2K80J3E	X 30.0 dBW	ND	013E46 45N40	400 km	1849.4000 kHz	

IRL

Irlande
Ireland
Irlanda

574	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	010W21 51N56	370 km	1825.4000 kHz	
575	IRL	VALENTIA 010W21 51N56	FC CP EJK	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	010W21 51N56	370 km	1828.4000 kHz	
577	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W21 55N22	370 km	1839.4000 kHz	
578	IRL	MALIN HEAD 007W21 55N22	FC CP EJM	0000-2400 DUPLEX	2K80J3EJN	X 30.0 dBW	ND	007W21 55N22	370 km	1842.4000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

IFRB NO.	COU ADM	TRANSMITTING-STATION	COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
		NOR					**Norvège / Norway / Noruega**					
1731	NOR	HAMMERFEST	021E00 70N02	FC CP LGI	0800-1800 DUPLEX	3K00J3E	X 27.0 dBW	ND	021E00 70N02	370 km	1803.0000 kHz	
		POR					**Portugal**					
592	POR	OLHAO	007W50 37N02	FC CP CUN 518	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	007W50 37N02	200 km	1848.0000 kHz	128
593	POR	MATOSINHOS	008W45 41N12	FC CP CUN 512	0000-2400 SIMPLEX	2K70J3EJN	X 17.0 dBW	ND	008W45 41N12	200 km	1848.0000 kHz	129
		QAT					**Qatar (Etat du) / Qatar (State of) / Qatar (Estado de)**					
18	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80J3E	X 33.0 dBW	ND	051E35 25N45	600 km	1849.0000 kHz	
19	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80H3E	X 33.0 dBW	ND	051E35 25N45	600 km	1849.0000 kHz	
20	QAT	DOHA	051E35 25N45	FC CP A7QD	0000-2400 SIMPLEX	2K80R3E	X 33.0 dBW	ND	051E35 25N45	600 km	1849.0000 kHz	

REQUIREMENTS FOR TRANSMITTING COAST STATIONS OF THE MARITIME MOBILE SERVICE
****
THE FREQUENCY-IN-USE IS IN THE BAND 1625-1635 OR 1800-1850 OR 2160-2170 kHz

REU

Réunion (Département français de la)
Reunion (French Department of)
Reunión (Departamento francés de la)

IFRB NO.	COU ADM	TRANSMITTING-STATION COORDINATES	CL. NAT. CALL-SIGN	OP-HOURS OP-MODE	EMISSION	POWER ANT-GAIN	AZIMUTH BEAM-WIDTH	SERVICE AREA		FREQUENCY-IN-USE PREFERRED-BAND	REMARK
2066	REU F	S DENIS 055E36 20S54	FC CP FFD	0000-2400 SIMPLEX	2K80J3E	X 33.0 dBW	ND	055E27 20S51	800 km	1814.4000 kHz	148

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 27-E
20 February 1985
Original : English

Note by the Secretary-General

SOME CONSIDERATIONS BY THE UNITED STATES OF AMERICA

At the request of the United States Administration, I transmit the attached document for the information of the Conference.

R.E. BUTLER
Secretary-General

Annex : 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX

SOME CONSIDERATIONS BY THE UNITED STATES OF AMERICA

The Administration of the United States of America extends its best wishes for a successful meeting to the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in Certain Parts of the MF Band in Region 1. The United States also would like to take this opportunity to bring to the attention of the conference some considerations that should be taken into account during the Region 1 planning process in recognition that in Region 2 the band 1605-1705 kHz will be planned for AM broadcasting purposes.

For Region 1, this conference is to establish plans for the Maritime Mobile service use of the frequency bands between 1606.5-1625 and 1635-1800 kHz. In 1986, the first session of a Regional Administrative Radio Conference will be held to establish the technical bases for a plan for the broadcasting service in the band 1605-1705 kHz in Region 2. The second session of the conference will be held in 1988 and it will draw up the Region 2 plan for AM broadcasting use.

The situation thus becomes one in which two ITU Regions will draw up different frequency plans for dissimilar services, each having the same allocation status and equality of right to operate. Moreover, to date the CCIR has not completed its studies nor developed the needed sharing criteria, yet there is the recognized potential of harmful interference occurring between the two different operations, as indicated in the CCIR Study Group 8 report to the conference.

In view of these factors, it would seem appropriate that both Regions 1 and 2 adopt necessary technical or operational parameters in their respective plans to preclude, insofar as practicable, the possibility of harmful interference to the planned operations in the other Region. It would also seem appropriate that any agreements associated with the respective plans contain some procedural or regulatory method to be invoked in the event of harmful interference between the services and regions. Finally, the Region 1 conference may wish to request the CCIR to expedite its studies and recommend relevant sharing criteria between the services involved and to note the possible future need for the members of Regions 1 and 2 to consider this matter further at an appropriate Administrative Radio Conference.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 28-E
28 February 1985
Original : English
French
Spanish

PLENARY MEETING

Note by the Secretary-General

PARTICIPATION REQUESTS SUBMITTED BY INTERNATIONAL ORGANIZATIONS

1. In agreement with the Administrative Council and in application of Nos. 349 and 372 of the Convention, those international organizations which seemed likely to be interested in the work of the Conference were notified that the Conference was to be held.

2. Formal applications for admission to the Conference have been received from :

- International Marine Radio Association (CIRM)
- International Electrotechnical Commission (IEC)
- International Transport Workers' Federation (ITF)
- International Amateur Radio Union (IARU)

3. Pursuant to No. 351 of the Convention, the Conference is requested to decide whether these organizations are to be allowed to participate in an advisory capacity.

R.E. BUTLER
Secretary-General

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 29(Rev.1)-E
28 February 1985
Original : English

Note by the Secretary-General

LOSS OF THE RIGHT TO VOTE

Under the Nairobi Convention, 1982 :

1) Non signatory Members which have not acceded to the Convention are not entitled to vote at Conferences*);

2) A Member loses its right to vote when it is in arrears in its payments to the Union for so long as the amount of its arrears equals or exceeds the amount of the contribution due from it for the preceding two years (see No. 117 of the Convention).

At present, for one or other of the above reasons and until such time as their situation is rectified, the following Members of Region 1 do not have the right to vote:

Country (in French alphabetical order)	In arrears in the payment of contributions	Non signatories which have not acceded to the Convention
BURUNDI (Republic of)	x	
CAPE VERDE (Republic of)	x	
CENTRAL AFRICAN REPUBLIC	x	
COMOROS (Islamic Federal Republic of)	x	x
DJIBOUTI (Republic of)		x
UNITED ARAB EMIRATES		x
GAMBIA (Republic of the)	x	
GUINEA (Republic of)	x	
GUINEA-BISSAU (Republic of)	x	x
EQUATORIAL GUINEA (Republic of)	x	
LIBERIA (Republic of)	x	x

*) Under No. 178 of the Convention, a signatory government which fails to deposit an instrument of ratification does not lose its right to vote until the end of a period of two years from the date of entry into force of the Convention.

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

Country (in French alphabetical order)	In arrears in the payment of contributions	Non signatories which have not acceded to the Convention
MAURITIUS		x
MAURITANIA (Islamic Republic of)	x	
UGANDA (Republic of)	x	
SIERRA LEONE	x	x
SUDAN (Democratic Republic of the)	x	
CHAD (Republic of)	x	
ZAMBIA (Republic of)	x	

R.E. BUTLER
Secretary-General

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 29-E
22 February 1985
Original : English

Note by the Secretary-General

LOSS OF THE RIGHT TO VOTE

Under the Nairobi Convention, 1982 :

1) Non signatory Members which have not acceded to the Convention are not entitled to vote at Conferences*);

2) A Member loses its right to vote when it is in arrears in its payments to the Union for so long as the amount of its arrears equals or exceeds the amount of the contribution due from it for the preceding two years (see No. 117 of the Convention).

At present, for one or other of the above reasons and until such time as their situation is rectified, the following Members of Region 1 do not have the right to vote :

Country (in French alphabetical order)	In arrears in the payment of contributions	Non signatories which have not acceded to the Convention
BURUNDI (Republic of)	x	
CAPE VERDE (Republic of)	x	
CENTRAL AFRICAN REPUBLIC	x	
COMOROS (Islamic Federal Republic of)	x	x
DJIBOUTI (Republic of)		x
UNITED ARAB EMIRATES		x
GAMBIA (Republic of the)	x	
GUINEA (Republic of)	x	
GUINEA-BISSAU (Republic of)	x	x
EQUATORIAL GUINEA (Republic of)	x	
LIBERIA (Republic of)	x	x
MADAGASCAR (Democratic Republic of)	x	

*) Under No. 178 of the Convention, a signatory government which fails to deposit an instrument of ratification does not lose its right to vote until the end of a period of two years from the date of entry into force of the Convention.

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Country (in French alphabetical order)	In arrears in the payment of contributions	Non signatories which have not acceded to the Convention
MAURITIUS		x
MAURITANIA (Islamic Republic of)	x	
UGANDA (Republic of)	x	
SIERRA LEONE	x	x
SUDAN (Democratic Republic of the)	x	
CHAD (Republic of)	x	
ZAMBIA (Republic of)	x	

R.E. BUTLER
Secretary-General

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 30-E
22 February 1985
Original : English

Note by the Secretary-General

INVITATIONS

1. Members of the Union

On 27 February 1984 invitations to send delegations to the Conference were sent to the Members belonging to Region 1 (with the exception of the Republic of South Africa) . That same day the other Members were informed that the Conference was to be held.

The Annex to this document lists the replies received to date.

2. United Nations, specialized agencies

On 3 April 1984, invitations to send observers to the Conference were sent to the United Nations*) and to the following specialized agencies :

- International Civil Aviation Organization (ICAO)**)
- International Maritime Organization (IMO)*)

World Meteorological Organization (WMO)

3. Regional telecommunication organizations (Article 32 of the Convention)

On 3 April 1984, invitations to send observers to the Conference were sent to the following regional telecommunication organizations :

- African Postal and Telecommunications Union (UAPT)
- Arab Telecommunication Union (ATU)
- Panafrican Telecommunication Union (PATU)

---

*) Has replied that it would not be able to send an observer.
**) Has accepted the invitation

R.E. BUTLER
Secretary-General

Annex : 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX

COUNTRIES WHICH HAVE ANNOUNCED THEIR PARTICIPATION IN THE CONFERENCE

(in French alphabetical order)

(position on 22 February 1985)

Albania (Socialist People's Republic of)

Algeria (People's Democratic Republic of)

Germany (Federal Republic of)

Angola (People's Republic of)

Saudi Arabia (Kingdom of)

Austria

Bahrain (State of)

Belgium

Benin (People's Republic of)

Bulgaria (People's Republic of)

Cameroon (Republic of)

Cape Verde (Republic of)

Cyprus (Republic of)

Congo (People's Republic of the)

Ivory Coast (Republic of the)

Denmark

Egypt (Arab Republic of)

United Arab Emirates

Spain

Ethiopia

Finland

France

Gabonese Republic

Ghana

Greece

Hungarian People's Republic

Iraq (Republic of)

Ireland

Iceland

Israel (State of)

Italy

Kenya (Republic of)

Liberia (Republic of)

Libya (Socialist People's Libyan Arab Jamahiriya)

Madagascar (Democratic Republic of)

Malta (Republic of)

Morocco (Kingdom of)

Monaco

Mozambique (People's Republic of)

Norway

Oman (Sultanate of)

Netherlands (Kingdom of the)

Poland (People's Republic of)

Portugal

Qatar (State of)

German Democratic Republic

Romania (Socialist Republic of)

United Kingdom of Great Britain and Northern Ireland

Sao Tome and Principe (Democratic Republic of)

Sudan (Democratic Republic of)

Sweden

Switzerland (Confederation of)

Tanzania (United Republic of)

Chad (Republic of)

Czechoslovak Socialist Republic

Tunisia

Turkey

Union of Soviet Socialist Republics

Yugoslavia (Socialist Federal Republic of)

Zimbabwe (Republic of)

INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA

GENEVA, MARCH 1985

EUROP.

Document 1017-E
25 February 1985
Original: English

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

GENEVA, FEBRUARY/MARCH 1985

Document 31-E
25 February 1985
Original: English

Note by the Secretary-General

SOFTWARE FOR RARC-MM-R1 AND RARC-EMA

At the request of the International Frequency Registration Board, I transmit the attached IFRB Report for the information of the Conferences.

R.E. BUTLER
Secretary-General

Annex: 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX 1

Report by the IFRB on

Software for RARC-MM-R1 and RARC-EMA-R1

1. INTRODUCTION

1.1 In its preliminary preparations for the RARC-MM-R1 and RARC-EMA-R1 Conferences, the Board decided that, while the most important planning criteria to be used by these conferences had been considered within the Conference preparation activities as foreseen by Resolution No. 704 (MOB-83) and Recommendation No. 602 (Rev. MOB-83), no planning methods had been developed to allow the establishment of frequency assignment plans on the basis of input requirements.

1.2 The Board therefore requested all the administrations of Region 1 to inform the Board of computer programs developed for this purpose. Only one administration provided the required programs which it subsequently proposed to the conferences.

1.3 The Board carried out its preparatory work using this planning method and developed associated programs and interfaces to permit the operation of the program developed by the Swedish Administration on the Siemens computer. The Board also revised it own Technical Standards to incorporate the latest available information.

1.4 The purpose of this document is to describe the resulting software system components that are available for use during the two conferences RARC-MM-R1 and RARC-EMA-R1. Fig. 1 gives an overview of the system. The three main components of the system are the data capture program, the planning program and the incompatibility analysis program. It is to be noted that the data capture program and the incompatibility analysis program which were developed by the IFRB, can work independently from the planning program.

2. DATA CAPTURE PROGRAM

The purpose of the data capture program is to update the requirement file. The Siemens utility IFG is used to create formatted screens on standard Siemens terminals. The utility programs to print the requirements file or extracts of it also belong to the data capture program although they are batch programs.

3. EXTRACTS OF ASSIGNMENTS FROM THE MRF

Assignments in the MRF that are to be taken into account when constructing the plan are extracted in a flat file by means of software which is part of the Frequency Management System of the IFRB (FMS). This file is processed through a program TEX16 which is part of the standard IFRB technical examination programs. TEX16 decodes the class of emission and finds suitable reception points for zones.

4. INCOMPATIBILITY ANALYSIS PROGRAM

4.1 The incompatibility analysis program is based on the IFRB technical examination program, which was modified to permit two-way interference calculations This program is described in Annex 1.

4.2 The output file of TEX16 is transformed into calculation files for the analysis program and for the planning program by the two programs MM17 and MM27 respectively. During the run of these two programs it is possible to exclude from the calculation file assignments that for one reason or another are not to be taken into account. E.g. assignments that are to be replaced by assignments in conformity with the new plan. The selection criteria are based on frequency band, class of station, region and country.

4.3 The interfaces between the incompatibility analysis program and the rest of the software are described in 4.4 and shown in Fig. 1.

4.4 Before running the analysis program, the requirements file should be updated with the frequencies assigned during the planning exercise (see 5.3). The program MM19 transforms the requirements file into a calculation file suitable for the analysis program for those requirements that have been assigned a frequency. The format of this calculation file is identical to the format of the calculation file for MRF assignments.

4.5 A run of the analysis program with the calculation file of requirements and the calculation file of MRF assignments as input will identify the incompatibilities between these two groups of assignments.

4.6 A run of the analysis program with only the calculation file of requirements as input will identify the incompatibilities between assignments in the plan.

5. PLANNING PROGRAM

5.1 A description of the planning program is given in Docs 24 and 1013 of the Swedish Administration. On the understanding that the Conferences will adopt this planning program the Board developed the necessary interfaces between this program and the rest of the software. Should the conferences decide to modify the planning method, account should be taken of the time needed by the IFRB to develop modified software.

5.2 The requirements file is transformed into a question card file by the program MM28. There is a selection program within the planning system which can be used to pick a group of requirements for which frequencies are to be found during a particular run of the program in batch mode or in interactive mode.

5.3 When a frequency has been found for a requirement, the planning program updates the file of existing assignments (EXI27 in Fig. 1) so that station is taken into account when a frequency is to be found for another requirement later. The information on found frequencies in the file EXI27 is also used to update the requirements file by means of the program MM29. The purpose of this update is twofold, to make it possible to print the plan with the planned frequencies in the same format as was used to publish the requirements and to create a calculation file from the requirements file which can be used in the analysis program.

6. RESULTS OF THE INCOMPATIBILITY ANALYSIS PROGRAM

The results of the incompatibility analysis program will be presented in three different lists:

a) List of assignments in the plan which are interfered by assignments recorded in the Master International Frequency Register (MIFR). The list will provide the results on the interference caused to stations appearing in the plan. If the plan is not modified in order to eliminate this interference the Board will consider the interference as having been accepted by the administrations concerned. Special attention will need to be given to the assignments in the plan of administrations not present at the conferences.

b) List of assignments in the MIFR receiving interference from assignments in the plan. The assignments in the plan will be identified with the understanding that at the time of their Notification they may receive an unfavourable finding.

c) List of incompatibilities between assignments in the plan.

7. IFRB TECHNICAL STANDARDS

The Board has recently carried out studies with a view to revising the IFRB Technical Standards on the basis of the latest available information. As a result of these studies it maintained TSA-3 (Receiver discrimination) and adopted modifications to TSA-1 (RF Protection Ratio), TSA-2 (Minimum field strength to be protected) and TSA-5 (Field strength values in the bands between 9 kHz and 3 900 kHz) to be applied on an interim basis until CCIR completes its work on related matters and provides the IFRB with the necessary data to enable the Board to continue its studies on the Technical Standards review.

The revised Technical Standards which concern the bands and services to be considered by the Conference are reproduced in Annex 2 to this document.

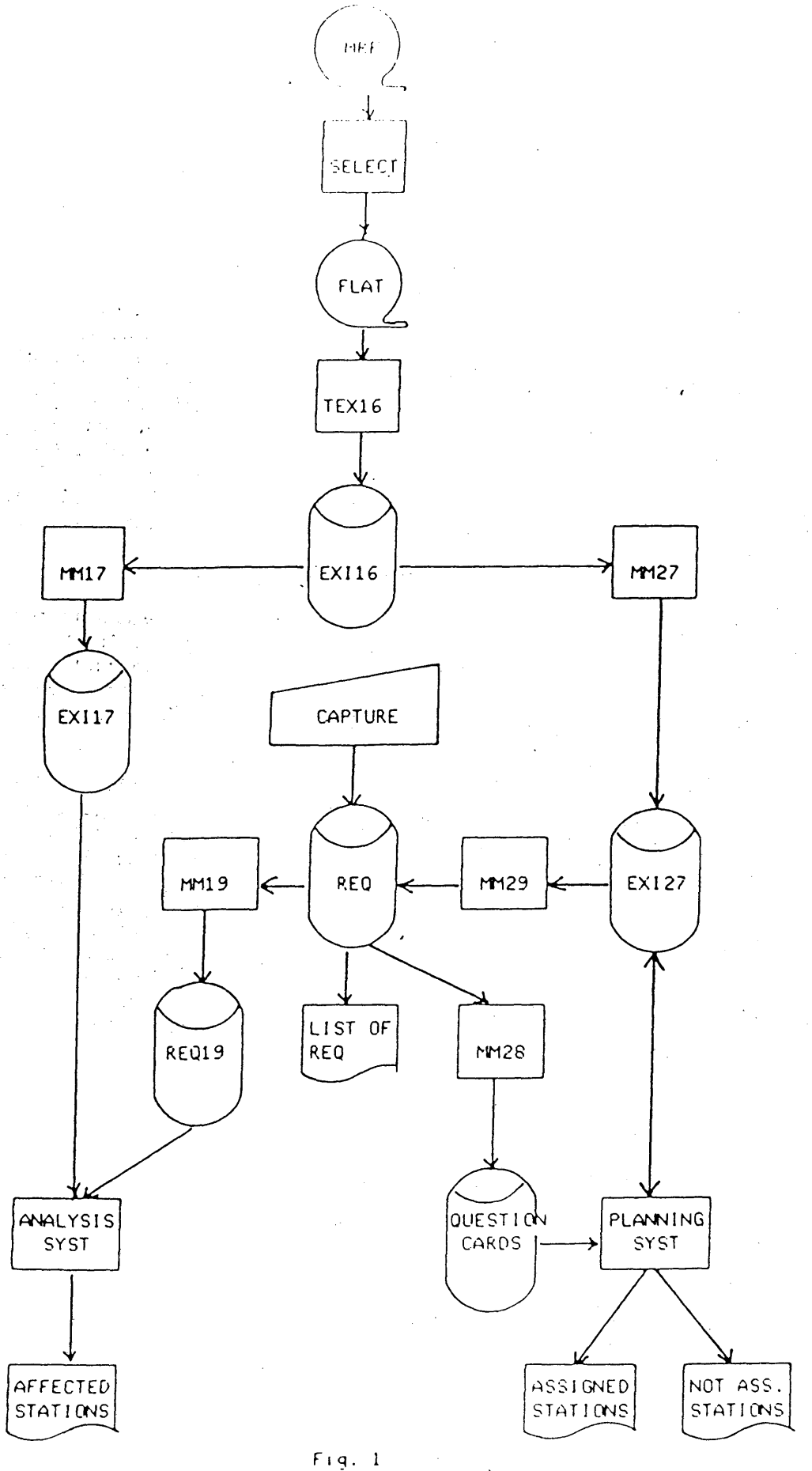

MRF
SELECT
FLAT
TEX16
EXI16
MM17
MM27
EXI17
CAPTURE
MM19
REQ
MM29
EXI27
REQ19
LIST OF REQ
MM28
ANALYSIS SYST
QUESTION CARDS
PLANNING SYST
AFFECTED STATIONS
ASSIGNED STATIONS
NOT ASS. STATIONS

Fig. 1

ANNEX 1

MM51 ANALYSIS PROGRAM

1. PURPOSE OF THE PROGRAM

The purpose of the program MM51 is to analyse incompatibilities between frequency assignments to requirements to be entered in the plans of the conferences RARC-MM-R1 and RARC-EMA-R1 on the one hand and assignments in the Master Register MRF, which are to be taken into account under RR 1241 or 1242, on the other hand. These two groups of assignments will hereafter, for the sake of convenience be called Plan assignments and MRF assignments respectively. The program is capable of analysing incompatibilities between plan assignments in the plan using the technical criteria adopted by the conference, which may be different from those used by the Board. This can be done only if the conference adopts these criteria at a very early stage.

2. SELECTION OF MRF ASSIGNMENTS TO BE PROTECTED

The selection of MRF assignments to be protected takes place in two stages. In the first stage all assignments in the Master Register in the frequency bands to be planned are extracted and converted to the so-called flat file format. This is the format used by the Technical Examination Programs. At this stage a list of all selected assignments in the IFL columnar format can be produced.

The second stage selection takes place at the time of creation of the calculation file of existing assignments. In the second stage it is possible to make a selection based on frequency, country, class of station and region. In the final selection the program uses a steering file. Each record specifies inclusion or exclusion of a particular category of assignments. Selection of categories are defined by specifying the frequency interval, the class of station, the ITU Region and the country. If a country is specified it takes precedence over the specification of a region. It is, for example, possible to exclude assignments of a permitted service in Region 1 but to include assignments of that service in countries where it is defined as primary by a footnote to the table of frequency allocations.

3. METHOD OF CALCULATION

3.1 Technical Standards

The program is based of the IFRB Rules of Procedure for technical examination and the IFRB Technical Standards A-1, A-2, A-3 and A-5 (1985 version).

3.2 Determination of reception points for MRF assignments

One of the most impqrtant steps in the calculation of incompatibilities is the determination of appropriate reception points at which the wanted and interference field strengths are to be calculated. For the assignments in the Master Register there are five different ways to describe the reception point or zone. The way the program deals with these different cases is described below.

3.2.1 Fixed point

This is the case of a point-to-point communication in the fixed service. The program calculates the wanted field strength during day and during night at the fixed reception point and compares it with the minimum field strength as given by the Technical Standard A-2. The signal to interference ratio for day and night is calculated only if the wanted field strength during the period is greater than the minimum field strength for the same period.

3.2.2 Networks of the Fixed Service of the zone (ZN) type

This is the case where a group of stations in one country works on one frequency and communicates among themselves. The program uses the transmitter coordinates of up to five other stations in the network as representative of the reception points of any station in the network. The program treats these points in exactly the same way as other fixed points (see 3.2.1).

3.2.3. Circular zones

The zone is defined by the centre and the radius of a circle. In order to calculate the protection ratio the program determines the coordinates of a point on the periphery of the circle and in the direction of the interfering transmitter. This is of course the most exposed point. For beacons in the frequency band 130-535 kHz the program assumes that the wanted field at that point is equal to the minimum field strength as given by the provisions of RR2857, RR2858, and RR2862-2864. For other stations the program calculates the wanted field strength during day and during night at that point and

compares it with the minimum field strength. If the wanted field strength is below the minimum field strength the radius is reduced until the wanted field becomes equal to the minimum field. This is done separately for day and for night. The interfering field strength is calculated for day and for night at the reception points that were found for day and for night respectively. In most cases the centre of the circle coincides with the site of the transmitter but it is not always the case. If it is not the case and the station is a beacon in the frequency band 130-535 kHz, the program calculates an effective range as the sum of the distance between the transmitter and the centre of the circle. The reason for this is that for such stations the calculation is based on the range and not on the notified power. (In such cases the effective range is identified by an * in the printed results).

3.2.4 Standard Defined Areas

There exists a number of standard defined areas like e.g. the maritime zones. For all areas which are used in the bands below 28 MHz, a number of test points has been determined and stored in a file. If the minimum field condition is not fulfilled at a test point, the program calculates the coordinates of a point in the same direction but at a shorter distance so that the wanted field at the test point is equal to the minimum field. This implies that a different test point may be used during day and during night. The program calculates the interfering field at the test points determined in this way.

3.2.5 Zones defined by up to six points

Zones defined by up to six points are treated in almost the same way as the standard defined areas. The only difference is that there is no need to search for the test points in a separate file, since the points defining the zone can be used directly.

3.3 Determination of reception points for Plan assignments

For plan assignments there are only two ways to describe the reception zone namely as a circular zone or as a zone defined by up to six points. The treatment is the same as for MRF assignments.

3.4 Field strength calculation

The program calculates the wanted and unwanted field strengths at noon and at midnight by interpolation in the TSA-5 tables. The calculated signal to interference ratio is compared with the protection ratio (lower TSA-1 limit) to determine whether the results should be printed.

ANNEX 2

1. TSA-1

Partial Review of TSA-1 (RF Protection Ratio)
for application in the IFRB preparatory activities to
RARC-MM-R1 and RARC-EMA-R1

For the purpose of interference calculations to be undertaken within the IFRB activities related to the RARC-MM-R1, 1985 and RARC-EMA-R1, 1985, the following RF Protection Ratio values (dB, p.e.p. *)) shall be used:

Transmission type			Frequency band (kHz)	
			283.5-526.5	1 606.5 - 2 160
Telegraphy, aural reception			8 (3 - 7)	11 (5 - 10)
Telegraphy, aural reception Meteo, Press			9 (3 - 8)	13 (5 - 12)
Telegraphy, automatic reception, without error correction			11 (6 - 10)	17 (10 - 16)
Telegraphy, automatic reception, with error correction			8 (6 - 7)	12 (7 - 11)
Phototelegraphy, facsimile			19 (14 - 18)	24 (16 - 23)
Telephony	not for connection to public network	DSB and SSB full carrier (CO)	18 (15 - 17)	21 (17 - 20)
		SSB, reduced or suppresed carrier, ISB (CO)	12 (9 - 11)	15 (11 - 14)
	for connection to public network	DSB and SSB full carrier (CP)	31 (26 - 30)	34 (28 - 33)
		SSB, reduced or suppresed carrier, ISB (CP)	25 (20 - 24)	28 (22 - 27)
Radiobeacons			15	15

*) Note 1: Attachment to TSA-1 contains conversion factors for powers notified as mean or carrier powers.

ANNEX 2 (cont'd)

Attachment to TSA-1

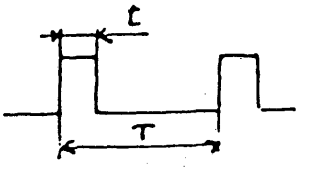
CONVERSION FACTORS FOR DIFFERENT NOTIFIED POWER TYPES

Class of emission	Notified power type	Conversion *) mean to p.e.p.	Conversion *) p.e.p. to mean
NON	Z	0	0
A1A	X	-	-3
A1B	X	-	-3
A1C	X	-	-3
A2A	Y	+4	-
A2B	Y	+4	-
A2N	Y	+4	-
H2A	Y	+3	-
H2B	Y	+3	-
H2N	Y	+3	-
D2A	Y	+3	-
R2B	X	-	-3
J2B	X	-	-3
A3E(BC)	Z	+6	0
A3E	Y	+4 (4-6)	-
H3E	Y	+4 (3-6)	-
R3E	X	-	-4 (4-10)
J3E	X	-	-4 (4-10)
A3C	Y	+4	-
R3C	X	-	0
J3C	X	-	0
A7B	Y	+4	-
H7B	Y	+4	-
R7C	X	-	-4 (3 -6)
J7C	X	-	-4 (3 -6)
B7B	X	-	-4
B8E	X	-	-4 (3-13)
B8C	X	-	0
AXX	Y	+6	-
BXX	X	-	-4 (3-10)
JXX	X	-	-4 (3-10)
B9W	X	-	-4
F,G/1,2, 3,7, X/ B,C,D,X	Y	0	-
P,L,M,X/- any	X	-	10 log $\frac{t}{T}$ **)
K2B	X	-	10 log $\frac{t}{T}$
K3E	X	-	10 log $\frac{t}{T}$

Notes:

*) In the cases where, in brackets, more than one figure is given, these figures refer to different modulating signal conditions (e.g. smoothly read text instead of sinusoidal modulating signal at 100 % carrier modulation) (see CCIR Rec. 326-4).

**) In the case of pulse modulation:



2. TSA-2

ANNEX 2 (cont'd)

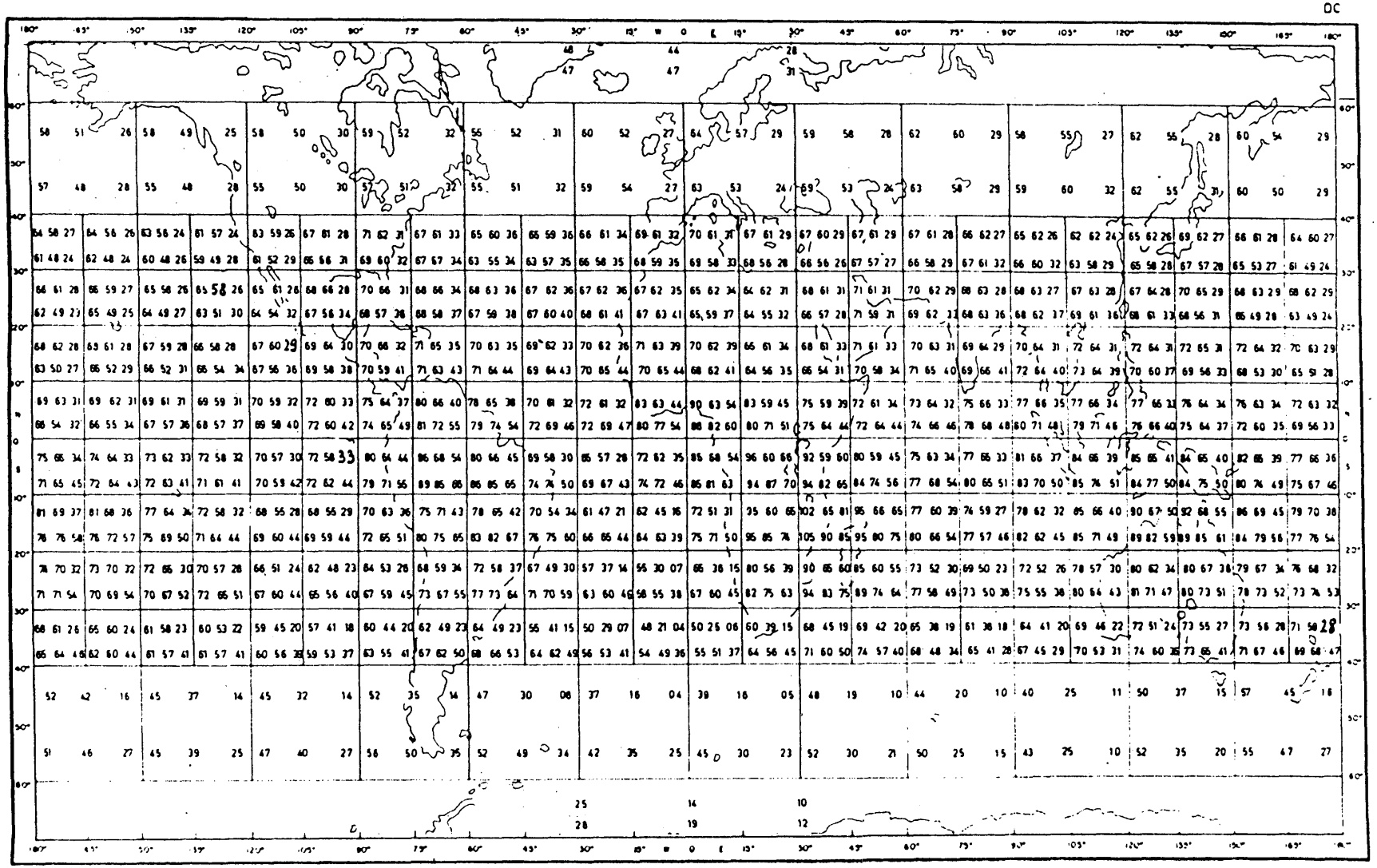
TSA-2(1984)

VALEUR DU DEGRE DE BRUIT EN FONCTION DE LA LATITUDE ET DE LA LONGITUDE DU LIEU DE RECEPTION
NOISE GRADE FIGURES ACCORDING TO LATITUDE AND LONGITUDE OF RECEIVING POINT
VALORES DEL GRADO DE RUIDO EN FUNCION DE LA LATITUD Y DE LA LONGITUD DEL LUGAR DE RECEPCION

période : DECEMBRE - JANVIER - FEVRIER
period : DECEMBER - JANUARY - FEBRUARY
periodo : DICIEMBRE - ENERO - FEBRERO
} DC

1

DC



ANNEX 2 (cont'd)

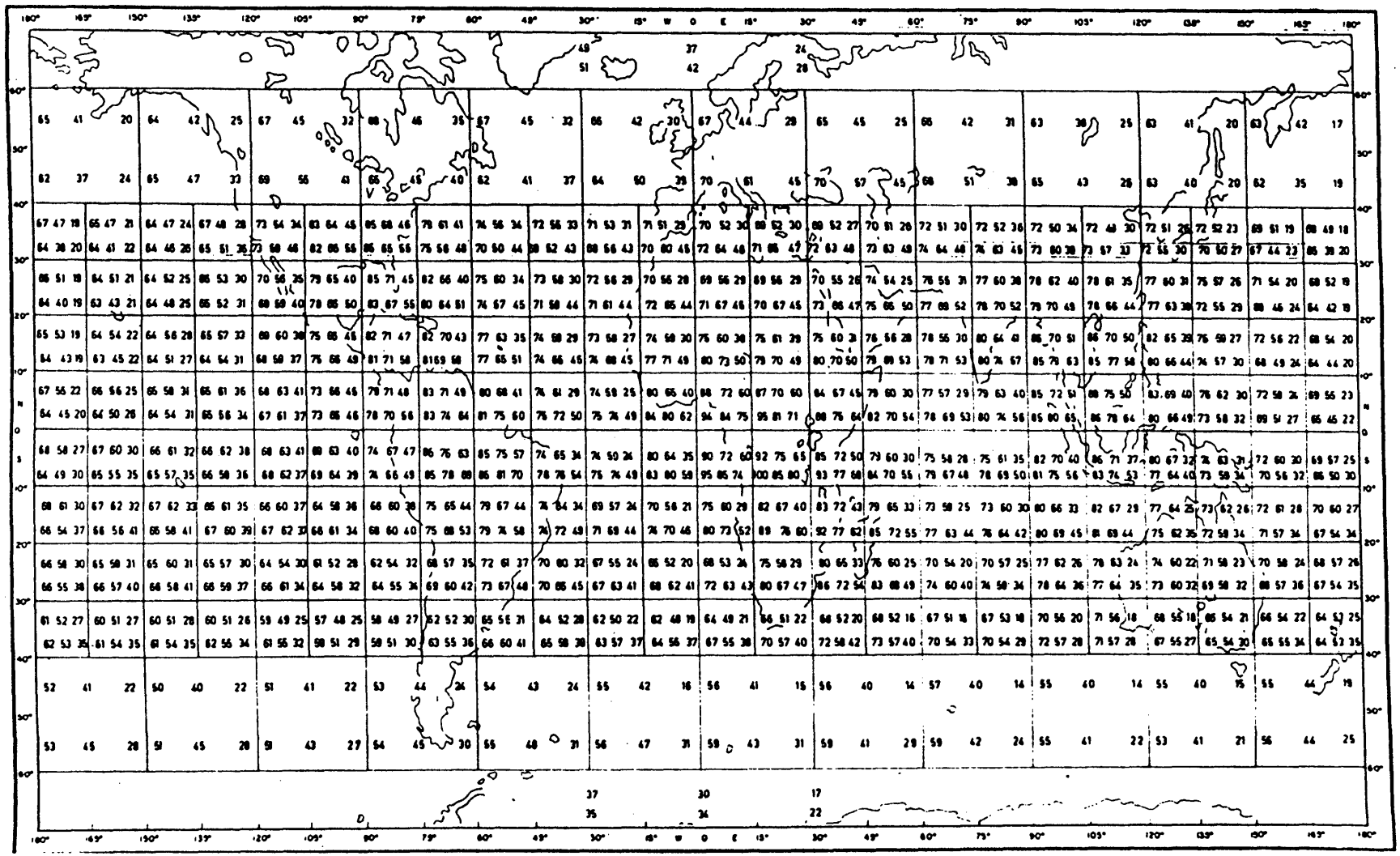
TSA-2(1984)

VALEUR DU DEGRE DE BRUIT EN FONCTION DE LA LATITUDE ET DE LA LONGITUDE DU LIEU DE RECEPTION
NOISE GRADE FIGURES ACCORDING TO LATITUDE AND LONGITUDE OF RECEIVING POINT
VALORES DEL GRADO DE RUIDO EN FUNCION DE LA LATITUD Y DE LA LONGITUD DEL LUGAR DE RECEPCION

période : MARS - AVRIL - MAI
period : MARCH - APRIL - MAY
periodo : MARZO - ABRIL - MAYO
} MR

2

MR



ANNEX 2 (cont'd)

VALEUR DU DEGRE DE BRUIT EN FONCTION DE LA LATITUDE ET DE LA LONGITUDE DU LIEU DE RECEPTION

NOISE GRADE FIGURES ACCORDING TO LATITUDE AND LONGITUDE OF RECEIVING POINT

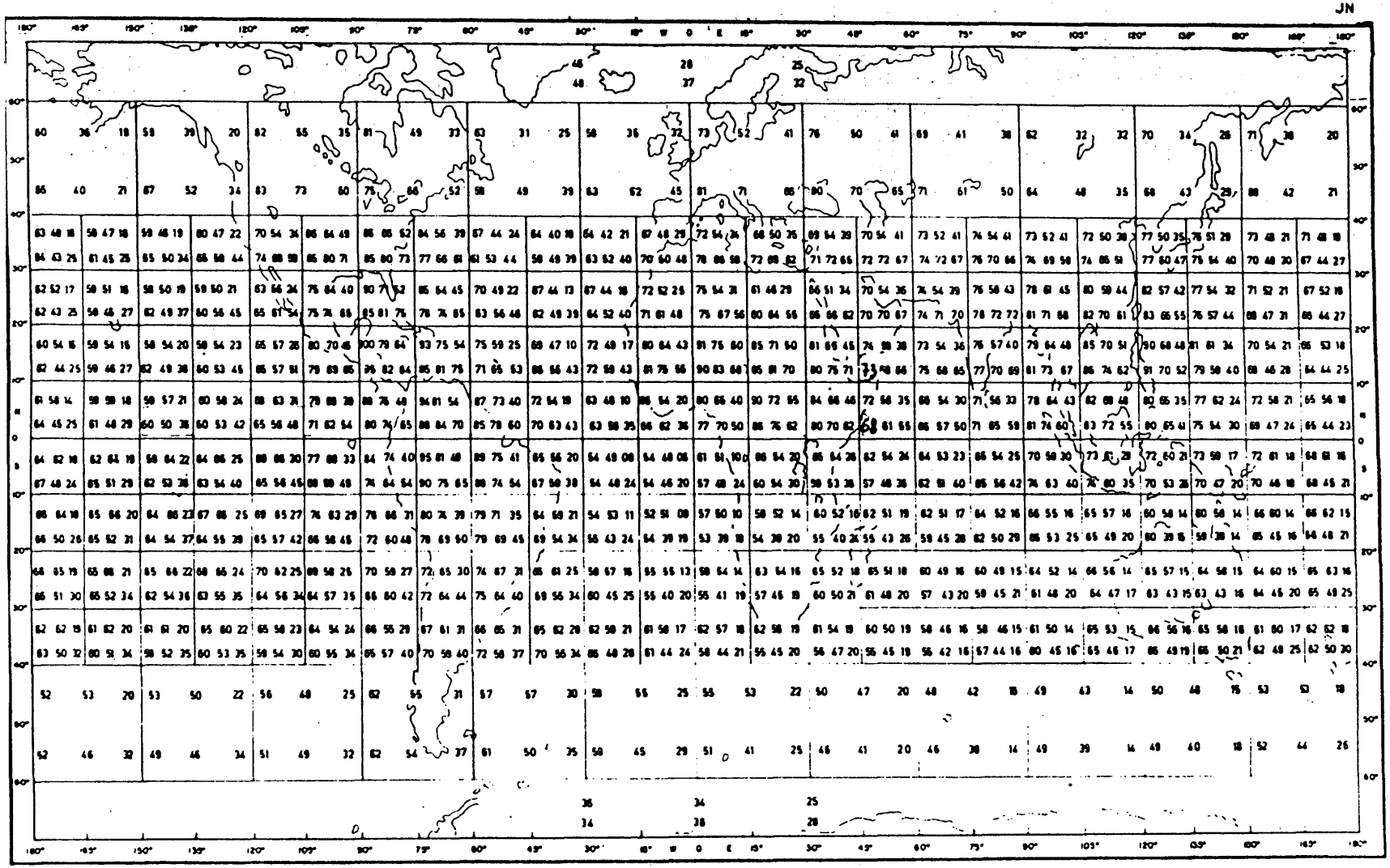
VALORES DEL GRADO DE RUIDO EN FUNCION DE LA LATITUD Y DE LA LONGITUD DEL LUGAR DE RECEPCION

TSA-2(1984)

période : JUIN - JUILLET - AOUT
period : JUNE - JULY - AUGUST
periodo : JUNIO - JULIO - AGOSTO } JN

3

JN



ANNEX 2 (cont'd)

VALEUR DU DEGRE DE BRUIT EN FONCTION DE LA LATITUDE ET DE LA LONGITUDE DU LIEU DE RECEPTION TSA-2(1984)

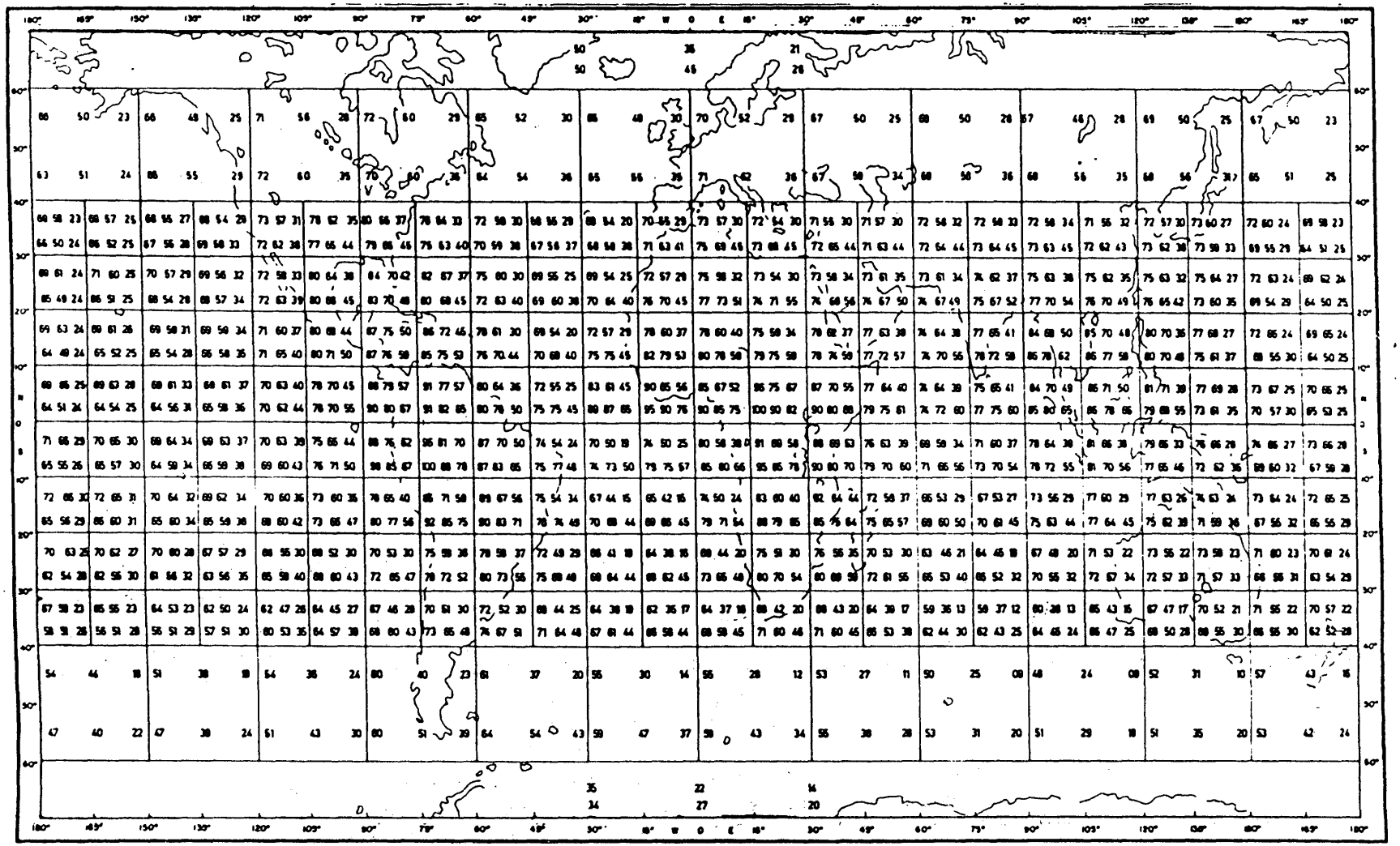
NOISE GRADE FIGURES ACCORDING TO LATITUDE AND LONGITUDE OF RECEIVING POINT

VALORES DEL GRADO DE RUIDO EN FUNCION DE LA LATITUD Y DE LA LONGITUD DEL LUGAR DE RECEPCION

période : SEPTEMBRE - OCTOBRE - NOVEMBRE
period : SEPTEMBER - OCTOBER - NOVEMBER
periodo : SEPTIEMBRE - OCTUBRE - NOVIEMBRE } SE

4

SE



Intensité minimum du champ à protéger (exprimée en dB par rapport à 1 μV/m)
Minimum field strength to be protected (expressed in dB relative to 1 μV/m)
Intensidad de campo mínima a proteger (expresada en dB con relación a 1 μV/m)

Type de transmission: Télégraphie, réception auditive
Type of transmission: Telegraphy, aural reception
Tipo de transmisión: Telegrafía, recepción auditiva
(B > 0.5 kHz)

5A

DEGRÉ DE BRUIT / NOISE GRADE / GRADO DE RUIDO	kHz																		MHz														
	10			20			50			100			200			500			1			1,5			2			3			4		
	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1
	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2
100	72	72	74	70	72	81	68	70	85	65	68	85	62	65	78	57	59	67	52	54	52	47	50	41	44	47	34	38	42	23	34	38	16
	72	74	77	71	75	81	68	74	83	65	73	84	62	70	80	56	63	68	51	55	54	47	49	43	42	45	36	36	39	27	32	35	22
90	69	69	72	67	69	77	63	65	78	59	61	75	54	57	69	48	50	57	42	44	42	38	40	32	35	38	26	31	34	17	28	31	11
	70	71	74	67	71	77	62	68	77	58	65	75	53	60	70	47	53	57	41	45	44	37	40	33	34	36	28	30	31	20	27	28	15
80	66	66	69	63	65	73	58	59	72	52	54	67	46	49	60	38	40	46	32	34	32	28	31	23	27	29	18	24	27	10	22	25	5
	67	68	71	63	66	72	57	61	71	51	57	67	45	51	60	37	43	46	31	35	34	28	30	25	26	28	20	23	24	13	21	22	9
70	64	63	66	60	61	68	53	54	66	46	48	59	38	40	50	28	30	35	22	24	22	19	22	14	18	20	10	17	19	3	16	18	1
	64	65	68	59	61	68	52	55	65	45	49	58	37	42	50	26	32	36	21	25	24	19	22	16	18	20	12	16	18	6	15	16	4
60	61	60	64	57	57	64	49	49	59	40	42	51	30	32	42	18	21	25	12	14	12	10	12	6	10	12	2	10	12	-4	10	12	-4
	61	61	66	56	56	65	47	48	57	39	40	49	29	32	40	18	22	26	11	15	14	9	12	7	9	11	4	9	11	0	9	10	-4
50	58	57	61	53	53	60	44	44	52	33	35	43	22	24	32	8	14	15	4	4	4	3	3	-3	2	3	-2	3	4	-4	4	5	-4
	58	58	63	52	52	59	43	41	50	32	32	41	21	23	30	8	12	16	4	5	4	3	3	-3	2	3	-2	2	3	-4	4	4	-4
40	55	55	58	49	50	56	38	39	46	26	28	35	14	16	22	7			4			3			2			-1			-1		
	55	55	60	49	47	55	38	35	43	26	24	32	14	14	20																		
30	52	52	56	46	47	52	33	34	40	19	22	27	14	14	13	7			4			3			2			-1			-1		
	52	52	58	45	42	50	32	28	36	20	16	24	14	14	14																		
20	50	49	54	43	42	48	28	28	33	12	15	20	41	44	44	7			4			3			2			-1			-1		
	49	48	55	40	37	46	27	20	30	14	8	15	41	41	41																		
10	48	46	51	40	39	44	22	23	28	5	8	11	41	41	41	7			4			3			2			-1			-1		
	47	45	53	35	32	42	21	14	21	8	1	6	41	41	41																		
0	45	43	48	36	35	40	17	18	22	2	2	3	41	41	41	7			4			3			2			-1			-1		
	44	41	50	31	27	37	16	7	14	3	2	2	41	41	41																		

Constants to be added to obtain other types of emissions			
Narrow band TG (B<0.5 kHz)			- 5
Telegraphy aut. (B>0.5 kHz)			4
Phototelegraphy			16
Telephony	CO	J3E R3E B8E	14
		H3E	20
		A3E	23
	CP	J3E R3E B8E	25
		H3E	31
		A3E	34
Broadcast.		LF/MF	49
		BC Trop	46

ANNEX 2 (cont'd)

TSA-2(1984)

Intensité minimum du champ à protéger (exprimée en dB par rapport à 1 µV/m)
Minimum field strength to be protected (expressed in dB relative to 1 µV/m)
Intensidad de campo mínima a proteger (expresada en dB con relación a 1 µV/m)

Type de transmission: Télégraphie, réception auditive
Type of transmission: Telegraphy, aural reception
Tipo de transmisión: Telegrafía, recepción auditiva
(B > 0.5 kHz)

5B

Degré de bruit / Noise grade / Grado de ruido	MHz 4			5			6			7			8			10			12			15			20			30		
	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1	N2	T1	J1
	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2	N1	T2	J2
100	34	38	16	31	34	12	28	31	11	25	28	11	25	25	11	18	21	12	14	17	13	7	11	13	-3	4	10	-4	-12	-3
	32	35	22	30	32	17	28	30	15	26	29	14	24	28	13	21	26	14	19	25	15	14	22	15	7	17	14	-4	0	2
90	28	31	11	26	28	8	23	25	8	21	23	9	18	21	9	14	16	10	9	12	11	2	6	11	-9	-2	8	-7		-7
	27	28	15	25	26	12	23	25	11	21	24	11	20	23	11	17	22	12	14	21	13	9	18	13	0	11	12			-5
80	22	25	5	20	23	4	18	21	5	16	18	6	14	16	7	9	13	8	4	8	9	-4	1	9	-14	-7	5	-7		
	21	22	9	19	21	8	18	20	8	16	19	9	15	19	9	12	18	10	9	17	11	5	13	11	-7	5	9			
70	16	18	1	15	17	1	13	16	2	11	14	3	9	13	4	4	9	6	-1	4	7	-9	-3	7	-4	-4	2	-7		
	15	16	4	14	15	3	13	15	4	12	14	6	11	14	7	8	14	8	4	13	9	-3	9	9	-4	-1	6			
60	10	12	-1	9	12	-3	9	11	-1	7	10	1	5	9	2	0	5	4	-5	0	5	-5	-5	5	-4	-4	-2	-7		
	9	10	-1	9	10	-1	9	10	1	8	10	3	7	10	4	3	10	6	-1	9	7	-5	4	7	-4	-6	2			
50	4	5	-1	4	6	-3	4	6	-3	2	6	-2	0	5	0	-5	1	2	-5	-4	3	-5	-5	2	-7		-5	-7		
	4	4	-1	5	5	-3	5	5	-2	4	5	-1	3	6	1	-1	6	4	-5	5	5	-5	0	5			-2			
40	-1			-1	0	-3	-3			-3	1	-3	-3	0	-3	-5	-3	0	-5	-5	1	-5		0	-7		-4	-7		
				-1	-1	-3				-3	1	-3	-3	2	-3	-5	2	2	-5	1	3			2			-6			
30	-1			-3			-3			-3			-3			-5	-5	-2	-5		0	-5		-2	-7			-7		
																-5	-2	0			1			-1						
20	-1			-3			-3			-3			-3			-5		-4	-5		-2	-5		-4	-7			-7		
																		-2			-1			-4						
10	-1			-3			-3			-3			-3			-5		-	-5		-4	-5			-7			-7		
																		-4			-3									
0	-1			-3			-3			-3			-3			-5			-5			-5			-7			-7		

Constants to be added to obtain other types of emissions			
Narrow band TG (B<0.5 kHz)			- 5
Telegraphy aut. (B>0.5 kHz)			4
Phototelegraphy			16
Telephony	CO	J3E R3E B8E	14
		H3E	20
		A3E	23
	CP	J3E R3E B8E	25
		H3E	31
		A3E	34
Broadcast.		LF/MF	49
		BC Trop	46

ANNEX 2 (cont'd)

3. TSA-3

Discrimination du récepteur (dB) - Receiver discrimination (dB) - Discriminación del receptor (dB)

Emission brouilleuse - Interfering emission - Emisión interferente

K	Telegraphy 100HA1A	Telegraphy 500HA1A 500HA1B	Telegraphy 1K00A1B	Telegraphy A2A, A2B, A2N H2A, H2B, H2N	Other telegraphy (TG)	Telephony SSB - CP ISB -CO-CP (with privacy device)	Telephony DSB - CP (with privacy device) SSB - CO (without privacy dev.)	Telephony DSB - CO (without privacy dev.
0	0	0	0	0	0	0	0	0
0,1	0	0	0	6	0	0	0	0
0,2	0	0	3	6	0	0	0	0
0,3	0	5	6	6	0	0	0	3
0,4	0	7	9	6	0	0	3	9
0,5	0	9	11	6	0	3	9	15
0,6	0	11	14	6	0	9	15	21
0,7	7	13	16	6	0	13	19	25
0,8	8	14	18	6	3	17	23	29
0,9	9	15	20	6	6	19	25	31
1	10	17	22	6	10	21	27	33
1,2	11	20	26	24	21	23	29	35
1,4	12	23	30	39	30	25	31	37
1,6	13	26	31,5	50	38	26	32	38
1,8	14	29	38	58	44	27	33	39
2	15	32	42	64	50	28	34	40
2,2	16	35	46		57	29	35	41
2,4	17	38	49		60	30	36	42
2,6	18	42	53		63	30,5	36,5	42,5
2,8	19	45	56		66	31	37	43
3	20	48	59		69	32	38	44
4	25	59	64		78	35	41	47
5	30	64				38	44	50
6	34	69				40	46	52
7	39					42	48	54
8	44					44	50	56
9	49					46	52	58
10	55					47	53	59
12	62					49	55	61
15	70							
$K = \frac{\Delta f - 0,5\ Bva}{0,5\ Bvi}$					$K = \Delta f - (0,5\ Bva + 0,5\ Bvi) + 1$			

K : Facteur de discrimination du récepteur - Receiver discrimination factor - Factor de discriminación del receptor

Bvi : Largeur de bande de l'émission brouilleuse - Bandwidth of interfering emission - Anchura de banda de la emisión interferente

Bva : Bande passante du récepteur de l'émission désirée - Pass-band of receiver of wanted emission - Banda pasante del receptor de la emisión deseada

Δf : Décalage entre les fréquences assignées - Frequency separation between assigned frequencies - Separación entre las frecuencias asignadas

ANNEX 2 (cont'd)

4. TSA-5

Technical Standard A-5 (Field strength values in the bands 9 to 3900 kHz) for application in the technical examinations (RR1241)

Intensité de champ (exprimée en dB par rapport à 1 µV/m)
Field strength (expressed in dB relative to 1 µV/m)
Intensidad de campo (expresada en dB con relación a 1 µV/m)

9 kHz-535 kHz

TSA-5(Rev.84)

1A

Distance en km / Distance in km / Distancia en km	Onde de sol : mer / Ground wave : sea / Onda de superficie : mar										Onde ionosphérique de nuit / Sky wave at night / Onda ionosférica de noche							Onde de sol : terre / Ground wave : land / Onda de superficie : tierra									Distance en km / Distance in km / Distancia en km
	Fréquence en kHz - Frequency in kc/s - Frecuencia en kc/s																										
	10	30	60	100	150	200	300	400	500		10 -100	150	200	300	400	500		10	30	60	100	150	200	300	400	500	
10	87	87	87	87	87	87	87	87	87									87	87	87	87	87	87	87	87	87	10
50	72	72	72	72	72	72	72	72	72									72	72	72	72	72	72	72	72	71	50
100	66	66	66	66	66	66	66	66	66					43	43	43		66	66	66	66	66	66	65	64	62	100
200	60	60	60	60	60	60	60	59	59					44	44	44		60	60	60	60	60	59	57	54	50	200
300	57	56	56	56	56	55	55	54	54					44	44	44		57	56	56	56	55	54	50	47	42	300
400	55	54	53	53	52	51	50	50	48		45	45	44	44	44	43		55	54	53	53	52	50	45	40	35	400
500	52	51	50	50	48	47	47	46	45		44	44	43	43	43	42		52	51	50	50	48	45	40	34	27	500
600	50	49	48	47	45	44	43	42	41		43	43	43	42	42	41		50	49	48	47	45	42	35	27	21	600
700	48	46	45	43	42	41	39	38	37		42	42	42	41	41	40		48	46	45	43	42	39	31	22	15	700
800	46	44	43	41	39	38	37	35	33		41	41	41	40	40	39		46	44	43	41	39	35	27	17	7	800
900	45	42	40	38	37	35	33	31	30		40	40	39	39	38	38		45	42	40	38	37	32	22	12	2	900
1000	43	40	38	36	33	32	30	28	26		39	39	38	38	38	37		43	40	38	36	33	29	18	7	-4	1000
1100	42	38	36	33	31	29	27	25	22		38	37	37	36	36	35		42	38	36	33	30	25	14	2	-10	1100
1200	40	37	34	31	29	27	24	21	19		38	36	36	35	35	34		40	37	34	31	27	22	9	-3	-15	1200
1300	39	35	32	29	26	24	21	17	15		36	35	35	34	33	33		39	35	32	29	24	19	5	-8	-21	1300
1400	38	33	29	26	23	21	17	14	12		36	34	34	33	32	32		38	33	29	25	22	16	2	-13		1400
1500	36	32	27	24	21	18	14	11	8		35	33	33	32	31	30		36	32	27	24	19	13	-3	-18		1500
1600	35	29	25	22	18	15	11	7	5		34	32	31	31	30	29		35	29	25	22	16	10	-7	-23		1600
1700	34	28	23	19	15	12	8	4	1		33	32	31	30	29	28		34	28	23	20	13	7	-10			1700
1800	32	26	20	17	13	10	5	1	-3		32	31	31	29	28	27		32	26	20	18	10	4	-14			1800
1900	31	24	19	15	10	7	2	-3	-6		31	30	30	28	27	26		31	24	19	15	8	1	-18			1900
2000	29	23	17	12	8	4	-1	-5	-9		31	29	29	27	26	25		29	23	17	13	6	-3	-21			2000
2200	27	19	13	7	3	-1	-7	-12	-16		29	28	27	25	24	23		27	19	13	7	0	-8				2200
2400	25	16	9	4	-2	-6	-13	-18	-23		28	27	26	23	23	21		25	16	9	4	-5	-14				2400
2600	22	13	5	-1	-7	-11	-18	-24			27	26	25	23	21	20		22	13	5	-1	-10	-20				2600
2800	20	9	2	-5	-11	-16	-24				26	24	23	21	20	18		20	8	2	-5	-15					2800
3000	18	7	-3	-10	-17	-22					25	23	22	20	18	17		18	7	-3	-10	-21					3000
3200	15	4	-5	-14	-21						25	23	21	19	17	15		15	4	-5	-14						3200
3400	13	0	-10	-18							22	22	20	18	16	14		13	0	-10	-18						3400
3600	10	-3	-13	-23							22	21	20	17	15	13		10	-3	-13	-23						3600
3800	9	-5	-16								23	21	19	16	14	12		9	-5	-16							3800
4000	7	-9	-20								23	20	18	15	13	11		7	-9	-20							4000
5000	-5	-24									23	20	17	14	10	8		-5	-24								5000
6000	-15										23	20	17	14	8	6		-15									6000
7000											22	19	16	13	8	5											7000
	MOD										(MOD)							MOD									

ANNEX 2 (cont'd)

Antenna efficiency (correction) factor TSA-5 (1984) 1B

Classe de station	Correction	Class of station	Correction	Clase de estación	Corrección
Stations fixes, stations terrestres et stations terrestres de radionavigation entre 10 et 70 kHz :		Fixed, Land and Radionavigation Land stations between 10 and 70 kHz :		Estaciones fijas, terrestres y terrestres de radionavegación entre 10 y 70 kHz :	
- puissance supérieure à 1 kW	-10 dB	- power above 1 kW	-10 dB	- potencia superior a 1 kW	-10 dB
- puissance égale à 1 kW	-12 dB	- power equal to 1 kW	-12 dB	- potencia igual a 1 kW	-12 dB
- puissance inférieure à 1 kW	-15 dB	- power below 1 kW	-15 dB	- potencia inferior a 1 kW	-15 dB
Stations fixes, stations terrestres et stations terrestres de radionavigation entre 70 et 150 kHz :		Fixed, Land and Radionavigation Land stations between 70 and 150 kHz :		Estaciones fijas, terrestres y terrestres de radionavegación entre 70 y 150 kHz	
- puissance supérieure à 1 kW	-7 dB	- power above 1 kW	-7 dB	- potencia superior a 1 kW	-7 dB
- puissance égale à 1 kW	-9 dB	- power equal to 1 kW	-9 dB	- potencia igual a 1 kW	-9 dB
- puissance inférieure à 1 kW	-12 dB	- power below 1 kW	-12 dB	- potencia inferior a 1 kW	-12 dB
Stations fixes, stations terrestres et stations terrestres de radionavigation (à l'exception des radiophares sans effet directif) entre 150 kHz et 535 kHz		Fixed, Land and Radionavigation Land stations (except non-directional radio-beacons) between 150 kHz and 535 kHz		Estaciones fijas, terrestres y terrestres de radionavegación (excepto los radiofaros no direccionales) entre 150 kHz y 535 kHz	
- puissance supérieure à 1 kW	-2 dB	- power above 1 kW	-2 dB	- potencia superior a 1 kW	-2 dB
- puissance égale à 1 kW	-4 dB	- power equal to 1 kW	-4 dB	- potencia igual a 1 kW	-4 dB
- puissance inférieure à 1 kW	-7 dB	- power below 1 kW	-7 dB	- potencia inferior a 1 kW	-7 dB

NOC

ANNEX 2 (cont'd)

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2

MER-SEA-MAR

Intensité de champ (exprimée en dB par rapport à 1 µV/m)
Field strength (expressed in dB relative to 1 µV/m)
Intensidad de campo (expresada en dB con relación a 1 µV/m)

Distance en km / Distance in km / Distancia en km	1605 - 2300 kHz							2300 - 2850 kHz							Distance en km / Distance in km / Distancia en km
	Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique -- Sky wave - Onda ionosférica						Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique - Sky wave - Onda ionosférica						
		midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja)					nuit / night / noche		midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja)					nuit / night / noche	
		latitude - latitud							latitude - latitud						
		0°	30°	40°	50°	60°			0°	30°	40°	50°	60°		
10	86							86							10
50	72							72							50
100	65							65							100
200	57							57							200
300	50							50							300
400	43						41	43						43	400
500	38						41	37						43	500
600	32						41	30						43	600
700	27						41	24						43	700
800	22						41	18						43	800
900	16						40	12					1	42	900
1000	11						39	7				-9	-1	41	1000
1100	6				-12	-7	39	2			-13	-10	-3	41	1100
1200	0			-15	-13	-8	38	-3	-15	-15	-14	-11	-4	40	1200
1300	-5	-17	-17	-16	-14	-9	37	-9	-16	-16	-15	-12	-6	39	1300
1400	-10	-18	-18	-17	-15	-10	36	-16	-18	-17	-16	-14	-7	38	1400
1500	-15	-20	-20	-19	-16	-12	35		-19	-19	-18	-15	-9	37	1500
1600		-21	-21	-20	-17	-13	34		-20	-20	-19	-16	-10	36	1600
1700							33							36	1700
1800							33							35	1800
1900							32							34	1900
2000							32							34	2000
2200							31							33	2200
2400							30							32	2400
2600							29							31	2600
2800							28							30	2800
3000							27							29	3000
3200							26							27	3200
3400							25							26	3400
3600							23							24	3600
3800							21							22	3800
4000							19							20	4000
4500							15							16	4500
5000							10							11	5000
	MOD	NOC						MOD	NOC						

Les intensités de champ de l'onde ionosphérique n'ont pas été indiquées dans les cas où elles sont inférieures à celles de l'onde de sol, sauf dans quelques cas où l'interpolation s'en trouve facilitée.

The values for sky wave field strength have not been included when they are less than the ground wave, except when they make the interpolation easier.

No se han indicado las intensidades de campo de la onda ionosférica cuando son inferiores a las de la onda de superficie, salvo en algunos casos en que ello facilita la interpolación.

ANNEX 2 (cont'd)

Intensité de champ (exprimée en dB par rapport à 1 µV/m)
Field strength (expressed in dB relative to 1 µV/m)
Intensidad de campo (expresada en dB con relación a 1 µV/m)

TSA-5(Rev.84)

3

MER-SEA-MAR

Distance en km / Distance in km / Distancia en km	2850 - 3500 kHz: Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique - Sky wave - Onda ionosférica: midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja) — latitude - latitud 0°	30°	40°	50°	60°	nuit / night / noche
10	86						
50	72						
100	65						
200	56						
300	48						44
400	41						44
500	35						44
600	29						44
700	22					12	44
800	16				-3	10	44
900	10				-5	6	44
1000	4			-10	-6	2	43
1100	-3	-14	-13	-12	-8	0	43
1200	-8	-15	-14	-13	-10	-1	42
1300	-13	-16	-15	-14	-12	-3	41
1400		-18	-17	-16	-13	-4	40
1500		-19	-19	-18	-14	-6	39
1600		-20	-20	-19	-15	-7	38
1700							38
1800							37
1900							36
2000							35
2200							34
2400							33
2600							32
2800							31
3000							30
3200							28
3400							27
3600							25
3800							23
4000							21
4500							16
5000							11

Distance en km / Distance in km / Distancia en km	3500 - 3900 kHz: Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique - Sky wave - Onda ionosférica: midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja) — latitude - latitud 0°	10°	20°	30°	40°	50°	60°	nuit / night / noche
10	86								
50	72								47
100	65	27	28	29	30	31	35	40	47
200	55	24	25	26	27	29	32	37	47
300	47	19	20	21	22	25	29	34	47
400	40	14	15	16	17	21	26	32	47
500	33	5	8	11	14	19	24	30	47
600	26	0	1	6	11	16	21	28	46
700	19	-2	-1	1	5	12	17	26	46
800	12	-5	-4	-3	-2	8	13	24	45
900	6	-8	-6	-5	-4	4	12	21	44
1000	-1	-10	-8	-6	-5	-2	10	18	43
1100	-7				-8	-3	5	16	42
1200					-9	-5	1	14	42
1300						-7	-1	11	41
1400						-9	-3	8	40
1500							-4	7	39
1600							-5	5	38
1700									38
1800									37
1900									36
2000									35
2200									34
2400									33
2600									32
2800									31
3000									30
3200									28
3400									27
3600									26
3800									25
4000									23
4500									18
5000									13

Les intensités de champ de l'onde ionosphérique n'ont pas été indiquées dans les cas où elles sont inférieures à celles de l'onde de sol, sauf dans quelques cas où l'interpolation s'en trouve facilitée.
The values for sky wave field strength have not been included when they are less than the ground wave, except when they make the interpolation easier.
No se han indicado las intensidades de campo de la onda ionosférica cuando son inferiores a las de la onda de superficie, salvo en algunos casos en que ello facilita la interpolación.

MOD MOC MOD NOC

ANNEX 2 (cont'd)

Intensité de champ (exprimée en dB par rapport à 1 µV/m)
Field strength (expressed in dB relative to 1 µV/m)
Intensidad de campo (expresada en dB con relación a 1 µV/m)

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4

TERRE - LAND - TIERRA

Distance en km / Distance in km / Distancia en km	1605 - 2300 kHz							2300 - 2850 kHz							Distance en km / Distance in km / Distancia en km
	Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique - Sky wave - Onda ionosférica						Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique - Sky wave - Onda ionosférica						
		midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja)					nuit / night / noche		midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja)					nuit / night / noche	
		latitude - latitud							latitude - latitud						
		0°	30°	40°	50°	60°			0°	30°	40°	50°	60°		
10	78							75							10
50	48						46	45						46	50
100	34					30	43	21			23	27	31	44	100
200	17			10	15	21	41	13	12	13	16	20	25	43	200
300	5	2	3	4	8	16	41	-1	6	7	10	14	22	43	300
400	-8	-4	-3	-2	2	10	41		-1	0	2	9	16	43	400
500		-7	-6	-5	-1	6	41		-5	-4	-2	5	12	43	500
600		-9	-9	-8	-4	2	41		-8	-7	-5	0	8	43	600
700		-11	-11	-10	-6	-1	41		-10	-9	-7	-3	6	43	700
800		-12	-12	-11	-9	-3	41		-11	-10	-9	-6	4	43	800
900		-13	-13	-12	-10	-4	40		-12	-11	-10	-8	1	42	900
1000		-14	-14	-13	-11	-5	39		-13	-12	-11	-9	-1	41	1000
1100		-15	-15	-14	-12	-7	39		-14	-14	-13	-10	-3	41	1100
1200		-16	-16	-15	-13	-8	38		-15	-15	-14	-11	-4	40	1200
1300		-17	-17	-16	-14	-9	37		-16	-16	-15	-12	-6	39	1300
1400		-18	-18	-17	-15	-10	36		-18	-17	-16	-14	-7	38	1400
1500		-20	-20	-19	-16	-12	35		-19	-19	-18	-15	-9	37	1500
1600		-21	-21	-20	-17	-13	34		-20	-20	-19	-16	-10	36	1600
1700							33							36	1700
1800							33							35	1800
1900							32							34	1900
2000							32							34	2000
2200							31							33	2200
2400							30							32	2400
2600							29							31	2600
2800							28							30	2800
3000							27							29	3000
3200							26							27	3200
3400							25							26	3400
3600							23							24	3600
3800							21							22	3800
4000							19							20	4000
4500							15							16	4500
5000							10							11	5000
	MOD	NOC						MOD	NOC						

Les intensités de champ de l'onde ionosphérique n'ont pas été indiquées dans les cas où elles sont inférieures à celles de l'onde de sol, sauf dans quelques cas où l'interpolation s'en trouve facilitée.

The values for sky wave field strength have not been included when they are less than the ground wave, except when they make the interpolation easier.

No se han indicado las intensidades de campo de la onda ionosférica cuando son inferiores a las de la onda de superficie, salvo en algunos casos en que ello facilita la interpolación.

Intensité de champ (exprimée en dB par rapport à 1 μV/m)
Field strength (expressed in dB relative to 1 μV/m)
Intensidad de campo (expresada en dB con relación a 1 μV/m)

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TERRE - LAND - TIERRA

Distance en km / Distance in km / Distancia en km	2850 - 3500 kHz							3500 - 3900 kHz									Distance en km / Distance in km / Distancia en km
	Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique - Sky wave - Onda ionosférica						Onde de sol / Ground wave / Onda de superficie	Onde ionosphérique - Sky wave - Onda ionosférica								
		midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja)					nuit / night / noche		midi (activité solaire faible) / noon (low solar activity) / mediodía (actividad solar baja)							nuit / night / noche	
		latitude - latitud							latitude - latitud								
		0°	30°	40°	50°	60°			0°	10°	20°	30°	40°	50°	60°		
10	71							67									10
50	41						45	37								47	50
100	27	26	27	28	28	32	44	23	27	28	29	30	31	35	40	47	100
200	14	17	18	22	25	28	44	4	24	25	26	27	29	32	37	47	200
300		9	10	15	20	27	44		19	20	21	22	25	29	34	47	300
400		2	3	5	15	21	44		14	15	16	17	21	26	32	47	400
500		-3	-2	1	11	17	44		5	8	11	14	19	24	30	47	500
600		-6	-5	-3	3	14	44		0	1	6	11	16	21	28	46	600
700		-8	-7	-5	0	12	44		-2	-1	1	5	12	17	26	46	700
800		-10	-9	-8	-3	10	44		-5	-4	-3	-2	8	13	24	45	800
900		-11	-10	-9	-5	6	44		-8	-6	-5	-4	4	12	21	44	900
1000		-12	-11	-10	-6	2	43		-10	-8	-6	-5	-2	10	18	43	1000
1100		-14	-13	-12	-8	0	43					-8	-3	5	16	42	1100
1200		-15	-14	-13	-10	-1	42					-9	-5	1	14	42	1200
1300		-16	-15	-14	-11	-3	41						-7	-1	11	41	1300
1400		-18	-17	-16	-13	-4	40						-9	-3	8	40	1400
1500		-19	-19	-18	-14	-6	39							-4	7	39	1500
1600		-20	-20	-19	-15	-7	38							-5	5	38	1600
1700							38									38	1700
1800							37									37	1800
1900							36									36	1900
2000							35									35	2000
2200							34									34	2200
2400							33									33	2400
2600							32									32	2600
2800							31									31	2800
3000							30									30	3000
3200							28									28	3200
3400							27									27	3400
3600							25									26	3600
3800							23									25	3800
4000							21									23	4000
4500							16									18	4500
5000							11									13	5000

MOD NOC MOD NOC

Les intensités de champ de l'onde ionosphérique n'ont pas été indiquées dans les cas où elles sont inférieures à celles de l'onde de sol, sauf dans quelques cas où l'interpolation s'en trouve facilitée.

The values for sky wave field strength have not been included when they are less that the ground wave, except when they make the interpolation easier.

No se han indicado las intensidades de campo de la onda ionosférica cuando son inferiores a las de la onda de superficie, salvo en algunos casos en que ello facilita la interpolación.

ANNEX 2 (cont'd)

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 32-E
25 February 1985
Original: English

PLENARY MEETING

Yugoslavia (Socialist Federal Republic of)

PROPOSALS FOR THE WORK OF THE CONFERENCE

1. Introduction

Taking into consideration the agenda of the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in certain parts of the MF band in Region 1, the competent authorities of the Socialist Federal Republic of Yugoslavia are of the opinion that this Conference will advance further the operation of the maritime mobile and aeronautical radionavigation services in general, and especially in Region 1.

The forthcoming Frequency Allotment Plan will enable adequate and free development of services to which the same frequency bands are attributed according to the Radio Regulations. Realizing this fact, special attention should be paid to the conditions of common operation, the need for the frequencies of some services in certain areas of Region 1 and the undisturbed operation of the maritime mobile and the aeronautical radionavigation services in Region 1. In the opinion of the competent authorities of the Socialist Federal Republic of Yugoslavia, this statement should be kept in mind during the Conference, because a planned compatibility of these services in the use of the same frequency bands will be achieved by this.

Following the considerations given in the above paragraph, the competent authorities of the Socialist Federal Republic of Yugoslavia are submitting a number of proposals for consideration by the Conference. The proposals are arranged in the sequence of the agenda items.

2. Proposals relating to item 2.1 of the agenda

2.1 Proposals relating to the structure of the agreement

YUG/32/1 Recommendation No. 419 of the Radio Regulations and Decisions 1, 2, 3 and 4 of Resolution No. 704 of the WARC-MOB, Geneva, 1983, should be guided while making the Frequency Allotment Plan for the maritime mobile and the aeronautical radionavigation services.

YUG/32/2 Taking up the preparation of the Frequency Allotment Plan for the maritime mobile and the aeronautical radionavigation services, it is necessary to come to an agreement that the Frequency Allotment Plan be made for:

a) the aeronautical radionavigation service in the 415 - 435 kHz band,

b) the maritime mobile service in the 435 - 526.5 kHz band and the aeronautical radionavigation service in the 505 - 526.5 kHz band,

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c) the narrow-band direct printing telegraphy in the maritime mobile service in the 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz bands,

d) the single-sideband telephony in the maritime mobile service 1 635 - 1 800 kHz.

YUG/32/3 A Channelling Plan for the maritime mobile service is necessary to be established for the maritime mobile service in the bands for which the Frequency Allotment Plan is made. Annexes 1 and 2 of Resolution No. 704 are used as the starting points in preparation of the Channelling Plan.

YUG/32/4 The CCIR Report to the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in certain parts of the FM band in Region 1 has been used as a starting point in establishing the technical criteria and conditions which are to be taken into consideration while preparing the Frequency Allotment Plan.

2.2 Proposals relating to the planning and use of certain bands

2.2.1 Frequency band 415 - 435 kHz

YUG/32/5 Due to the following reasons the competent authorities of the Socialist Federal Republic of Yugoslavia suggest that the Frequency Allotment Plan be established in the 415 - 435 kHz band for the aeronautical radionavigation service only:

- in order to satisfy the enormous needs for nondirectional radiobeacons /NDB/ and locators /L/ in the aeronautical radionavigation service,

- in order to satisfy the needs of the maritime mobile service on the basis of the Channelling Plan which will be established in the 435 - 526.5 kHz band.

YUG/32/6 Pursuant to Provision No. 4237 of the Radio Regulations it is necessary to provide the adequate replacement of this frequency by some other frequency from the 435 - 526.5 kHz band, taking into consideration that the frequency 425 kHz is intended to be used on the world-wide basis for operation of Morse telegraphy in ship-to-shore direction. As it is not in the competence of this Conference to modify Provision No. 4237 of the Radio Regulations, it is necessary to establish one Recommendation which will recommend the next competent WARC to revise the way of use of the frequency 425 kHz in Region 1 in order to avoid harmful interference to the aeronautical radionavigation service.

2.2.2 Frequency band 435 - 526.5 kHz

YUG/32/7 Preparation of the Frequency Allotment Plan for the needs of the maritime mobile service should follow on the basis of the Channelling Plan to be established at the Conference. While preparing the Channelling Plan, it is necessary to take into account that according to Provision No. 4237 of the Radio Regulations the attribution of the frequencies 454 kHz, 468 kHz, 480 kHz and 512 kHz remains unchanged, the attribution of the frequency 518 kHz remains in terms of Provision No. 4184A /MOB-83/ and that the attribution of the frequency 490 kHz remains in terms of Provision No. 4184B /MOB-83/.

YUG/32/8 The frequency band 435 - 526.5 kHz should be used in the maritime mobile service for the narrow-band direct printing telegraphy and Morse telegraphy and the Frequency Allotment Plan should be established for all these needs.

YUG/32/9 The frequency band 505 - 526.5 kHz should be used in the best possible way and stated needs of the aeronautical radionavigation service should be taken into consideration while preparing the Frequency Allotment Plan.

2.2.3 Frequency bands 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz

YUG/32/10 The frequency bands 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz should be used for the narrow-band direct printing telegraphy in the maritime mobile service. On the basis of the established Channelling Plan, it should be taking up the preparation of the Frequency Allotment Plan.

2.2.4 Frequency bands 1 635 - 1 800 kHz and 2 045 - 2 142 kHz

YUG/32/11 The frequency bands 1 635 - 1 800 kHz and 2 045 - 2 142 kHz should be used in the maritime mobile service for the single sideband radiotelephony. On the basis of the established Channelling Plan, it should be taking up the preparation of the Frequency Allotment Plan.

YUG/32/12 Provisions Nos. 4358-4368 of the Radio Regulations should be taken into account while preparing the Channelling Plan.

3. Proposals relating to item 2.3 of the agenda

YUG/32/13 The existing frequency assignments to other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are allocated should be taken into consideration while preparing the Frequency Allotment Plan for the maritime mobile service. Whether some difficulties would occur in the preparation of the Plan [due to the existing assignments], those existing assignments should be replanned to other frequency bands concerned, so that they have priority in the repeated assignment. The relevant procedure is proposed to be established in that case, so that the IFRB is requested to provide assistance to administrations in finding the adequate substitutions in the period between this Conference and the date of entering into force of the Final Acts of the Conference.

4. Proposals relating to item 2.6 of the agenda

YUG/32/14 It is proposed that the earliest day of entering into force of the Final Acts of the Conference should be 31 December 1990, having in mind the proposed terms of applying the Future Global Maritime Distress and Safety System established by the International Maritime Organization.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document No. 33-E
25 February 1985
Original: English

PLENARY MEETING

Note by the Secretary-General
(approved during the 1st Plenary Meeting)

STRUCTURE OF THE REGIONAL ADMINISTRATIVE RADIO CONFERENCE FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1 Geneva, 1985

The agenda of the Conference appears in Resolution No. 897 which was adopted by the Administrative Council at its 38th Session (Geneva, 1983). This Resolution is reproduced in the annex to Document No. 1 of the Conference.

Bearing in mind Nos. 464 to 479 inclusive of the International Telecommunication Convention, Nairobi, 1982, the following committees with their terms of reference are suggested. These terms of reference have been drawn up within the framework of the Convention, the Conference Agenda and in the light of experience at previous conferences.

Committee 1 - Steering Committee

Terms of Reference :

To coordinate all matters connected with the smooth execution of work and to plan the order and number of meetings, avoiding overlapping wherever possible in view of the limited number of members of some delegations (Nos. 468 and 469 of the International Telecommunication Convention, Nairobi, 1982).

Committee 2 - Credentials Committee

Terms of Reference :

To verify the credentials of delegations and to report on its conclusions to the Plenary Meeting within the time specified by the latter (Nos. 390 and 471 of the International Telecommunication Convention, Nairobi, 1982).

Committee 3 - Budget Control Committee

Terms of Reference :

To determine the organization and the facilities available to the delegates, to examine and approve the accounts of expenditure incurred throughout the duration of the Conference and to report to the Plenary Meeting the estimated total expenditure of the Conference as well as the estimated costs entailed by the execution of the decisions of the Conference (Nos. 476 to 479 inclusive and No. 627 of the International Telecommunication Convention, Nairobi, 1982 and Nairobi Resolution No. 48).

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Committee 4 - Technical Committee

Terms of Reference

To elaborate the technical parameters necessary for the establishment of frequency assignment plans in the following frequency bands in Region 1:

- for the maritime mobile service :
415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz,
1 635 - 1 800 kHz and 2 045 - 2 160 kHz

- for the aeronautical radionavigation service :
415 - 435 kHz and 505 - 526.5 kHz

(item 2.1 of the Agenda);

To consider the technical criteria to be applied for the reassignment of replacement frequencies for stations of the Maritime Mobile Service and the technical criteria to be applied, when establishing the Plan for the Maritime Mobile Service; to afford appropriate protection to frequency assignments to stations of other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are also allocated (items 2.2 and 2.3 of the Agenda).

To elaborate the technical parameters to be taken into consideration for the establishment of procedures intended for future modifications to the Plans and permitting a compatible development of the other services to which the bands are allocated (item 2.4 of the Agenda).

Committee 5 - Planning Committee

Terms of Reference :

To establish frequency assignment plans in the following frequency bands in Region 1 having regard to No. 419 of the Radio Regulations and Appendices 1 and 2 to Resolution No. 704 of the WARC for the Mobile Services, Geneva, 1983:

- for the maritime mobile service :
415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz,
1 635 - 1 800 kHz and 2 045 - 2 160 kHz

- for the aeronautical radionavigation service :
415 - 435 kHz and 505 - 526.5 kHz

(item 2.1 of the Agenda);

To reassign replacement frequencies for stations of the maritime mobile service in accordance with resolves 2 of Resolution No. 38 of WARC-79 (item 2.2 of the Agenda).

When establishing the Plan for the maritime mobile service, to afford appropriate protection to frequency assignments to stations of other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are also allocated (item 2.3 of the Agenda).

Committee 6 - Agreement and Procedures Committee

Terms of Reference :

To establish an agreement in the following frequency bands in Region 1:

- for the maritime mobile service :
415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz,
1 635 - 1 800 kHz and 2 045 - 2 160 kHz

- for the aeronautical radionavigation service :
415 - 435 kHz and 505 - 526.5 kHz

(item 2.1 of the Agenda);

To establish procedures intended for future modifications to the Plans and permitting a compatible development of the other services to which the bands are allocated (item 2.4 of the Agenda).

To establish the final texts of Appendices to the Radio Regulations containing the channelling arrangements in Appendices 1 and 2 to Resolution No. 704 of the WARC for the Mobile Services, Geneva, 1983 in the bands referred to above with the view to their later inclusion in the Radio Regulations (item 2.5 of the Agenda).

To agree on a date of implementation of the above Plans, taking into account the needs of the other services to which Resolution No. 38 of WARC-79 applies (item 2.6 of the Agenda).

Committee 7 - Editorial Committee

Terms of Reference

To perfect the form of the texts prepared in the various committees of the Conference, without altering the sense, for submission to the Plenary Meeting (Nos. 473 and 474 of the International Telecommunication Convention, Nairobi, 1982).

Document 34-F/E/S
25 février 1985
Original : français
anglais
espagnol

RÉGION 1

UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS
CARR POUR LE SERVICE MOBILE MARITIME ET LE SERVICE DE RADIONAVIGATION AÉRONAUTIQUE DANS CERTAINES PARTIES DE LA BANDE DES ONDES HECTOMÉTRIQUES DANS LA RÉGION 1
GENÈVE, FÉVRIER/MARS 1985

Note du Secrétaire général / Note by the Secretary-General
Nota del Secretario General

ATTRIBUTION DES DOCUMENTS / ALLOCATION OF DOCUMENTS / ATRIBUCIÓN DE LOS DOCUMENTOS

(approuvé au cours de la 1ère séance plénière/
approved during the 1st plenary meeting/
aprobado durante la primera sesión plenaria)

Plenière Plenary Plenaria	: 1, 14 + Add.1, 28
C2 - Pouvoirs Credentials Credenciales	: 2
C3 - Budget Presupuesto	: 18, 19, 20, 25
C4 - Technique Technical Técnica	: 3, 6 + Corr.1 + Corr.2 + Add.1, 8, 15 + Add.1, 21, 23
C5 - Planification Planning Planificación	: 3, 4, 5, 6 + Corr.1, 7, 8, 9(Rev.1), 11, 12, 13, 14 + Add.1, 15 + Add.1, 21, 22, 23, 24, 26
C6 - Accord et procédures Agreement and Procedures Acuerdo y procedimientos	: 4, 5, 6 + Corr.1, 7, 8, 9(Rev.1), 10, 13, 15 + Add.1, 16, 17, 22

R.E. BUTLER
Secrétaire général

Pour des raisons d'économie, ce document n'a été tiré qu'en un nombre restreint d'exemplaires. Les participants sont donc priés de bien vouloir apporter à la réunion leurs documents avec eux, car il n'y aura pas d'exemplaires supplémentaires disponibles.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 35-E
25 February 1985
Original : French
English
Spanish

Information paper

GENERAL SCHEDULE OF THE WORK OF THE CONFERENCE

1st week (25 February - 1 March)

Organization and commencement of the work

Friday 1 March : end of the work of the Technical Committee

2nd week (4 - 8 March)

Wednesday 6 : end of the work of Working Groups of the Agreement and Procedures Committee

Thursday 7 : end of the work of Working Groups of the Planning Committee

Friday 8 : end of the work of the Agreement and Procedures Committee

3rd week (11 - 15 March)

Monday 11 : end of the work of the Planning Committee
Report of the Credentials Committee

Tuesday 12 : Report of the Budget Control Committee

Wednesday 13 : First reading by PL of the last texts of the Final Acts

Thursday 14 : Second reading by PL of the last texts of the Final Acts

Friday 15 : Signing ceremony and closing

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 36-E
26 February 1985
Original: English

COMMITTEE 5

Sweden

REDUCTIONS IN REQUIREMENTS AND PRESENT ASSIGNMENTS

1. At the first Plenary Meeting the Conference decided that the final date for the submission of requirements shall be Thursday, 28 February at 1200 hours. Amendments in order to reduce present assignments in the bands to be planned should also be submitted with the same time limit.

2. After having carried out some test planning exercises before the Conference, the Swedish Delegation is convinced that all the requirements will not be satisfied in the planning. We therefore urge all delegations to check their requirements already submitted in order to make reductions in the following ways.

- Bandwidth

  The necessary bandwidth should not exceed the following values:

  Maritime mobile service: 100 Hz (A1A)
  304 Hz (F1B)
  2.8 kHz (J3E)

  Aeronautical radionavigation service (beacons): 850 or 2 040 Hz

  Maritime radionavigation service (beacons): 100 Hz

- Range

  Delegations are urged to reconsider the required ranges in order to possibly reduce them.

  Reference is made to Document 15 in which Norway and Sweden propose a maximum of 400 km for coast stations.

- Hours of operation

  Delegations are invited to consider if some of the requirements can be limited to day-time use only.

- Number of frequencies

  Delegations are also urged to consider if it is really necessary to have separate frequencies for A1A morse telegraphy and F1B narrow-band direct printing during a transition period.

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3. In order to improve the possibilities for finding assignable frequencies in the planning to be done we would also urge all delegations to review their present assignments to stations of other services than those being planned in the actual bands in the following ways.

- Deletions

  Assignments not corresponding to stations in use should be deleted.

- Protection needed

  Indicate assignments to stations of permitted services for which protection is not claimed. (In these cases new frequencies will have to be found when the plan has been established.)

- Range

  Delegations are urged to reconsider the ranges indicated in order to possibly reduce them. (It seems to us that there are cases where a standard range has been indicated.)

- Bandwidth

  Delegations are invited to consider if the bandwidth of old assignments (as well as of newer assignments) can be reduced, for instance from 6 kHz to 3 kHz (DSB/A3A having been replaced by SSB/J3E).

The amendments or deletions of present assignments to stations of other services than those being planned in the bands under consideration should be communicated to the IFRB at the Conference before the time limit decided for new requirements. A formal confirmation may be necessary and should in that case reach the IFRB by Thursday, 7 March at 1200 hours Geneva time.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 37-E
26 February 1985
Original : French

CONFERENCE CHAIRMANSHIP

(as established by the First Plenary Meeting)

Chairman of the Conference	:	Mr. T. HAHKIO (Finland)
Vice-Chairmen of the Conference	:	Mr. M. BCHINI (Tunisia) Mr. D. STAMATOV (Bulgaria)
Committee 1 Steering Committee	:	(composed by the Chairman and Vice-Chairmen of the Conference and of the Chairmen and Vice-Chairmen of the other Committees)
Committee 2 Credentials Committee	:	Chairman : Mr. J.F. PATRICIO (Portugal) Vice-Chairman : Mr. P. SONFACK (Cameroon)
Committee 3 Budget Control Committee	:	Chairman : Mr. S.S. AL-BASHEER (Saudi Arabia) Vice-Chairman : Mr. F. HORVÁTH (Hungary)
Committee 4 Technical Committee	:	Chairman : Mr. E. GEORGE (Fed. Rep. of Germany) Vice-Chairman : Mr. G. ELEFTERIOU (Ivory Coast)
Committee 5 Planning Committee	:	Chairman : Mr. T. BØE (Norway) Vice-Chairman : Mr. V. SCEPOTIN (USSR)
Committee 6 Agreement and Procedures Committee	:	Chairman : Mr. S. CHALLO (Kenya) Vice-Chairman: Mr. Z. KUPCZYK (Poland)
Committee 7 Editorial Committee	:	Chairman : Mr. J.L. BLANC (France) Vice-Chairmen : Mr. M.P. DAVIES (United Kingdom) Mr. F. PITERA-CALVET (Spain)

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 38-E
26 February 1985
Original : French

Note by the Secretary-General

SECRETARIAT OF THE CONFERENCE

Secretary of the Conference	:	Mr. R.E. Butler, Secretary-General
Executive Secretary	:	Mr. R. Macheret
Technical Secretary	:	Mr. M. Harbi
Administrative Secretary	:	Mr. J. Escudero
Plenary Meeting and Committee 1 (Steering)	:	Mr. A.B. Maclennan
Committee 2 (Credentials)	:	Mr. R. Macheret
Committee 3 (Budget Control)	:	Mr. R. Prélaz
Committee 4 (Technical)	:	Mr. O. Villanyi
Committee 5 (Planning)	:	Mr. G. Kovacs
Committee 6 (Agreement and Procedures)	:	Mr. J. Balfroid
Committee 7 (Editorial)	:	Mr. P.A. Traub
Operational support for Computer Services	:	Mr. H. Allebroeck

These officials will be assisted as necessary by others seconded from ITU Headquarters.

R.E. BUTLER
Secretary-General

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 39-E
1 March 1985
Original: English

PLENARY MEETING

MINUTES

OF THE

FIRST PLENARY MEETING

Monday, 25 February 1985, at 1430 hrs

Chairman: Mr. G.J. BALESTIBEAU (France)

later: Mr. T. HAHKIO (Finland)

Subjects discussed:	Document
1. Opening of the Conference	-
2. Election of the Chairman of the Conference	-
3. Election of the Vice-Chairmen of the Conference	-
4. Address by the Secretary-General	-
5. Conference structure	DT/1
6. Election of the Chairmen and Vice-Chairmen of the Committees	-
7. Composition of the Conference Secretariat	-
8. Allocation of documents to Committees	DT/3
9. Participation requests submitted by international organizations	28
10. Date by which the Credentials Committee must submit its conclusions	-
11. Working hours of the meetings of the Conference	-
12. Financial responsibilities of administrative conferences	20
13. Final date for the submission of requirements and some related matters	-

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Opening of the Conference

1.1 The Chairman said that both he and his country were honoured by his nomination to open proceedings as doyen of the Conference. Having participated in similar maritime conferences since 1974, he regarded the current meeting as an important link for the countries of Region 1 between the Conference of 1983 and the World Mobile Services Conference scheduled for 1987. He hoped that it would be most successful.

2. Election of the Chairman of the Conference

2.1 The Secretary-General said that the meeting of Heads of Delegation had agreed unanimously to put forward the name of Mr. Touko HAHKIO (Finland) as Chairman of the Conference.

Mr. HAHKIO was elected Chairman of the Conference by acclamation.

2.2 The Chairman congratulated Mr. Hahkio on his election and invited him to take the chair.

2.3 The Chairman of the Conference thanked delegates for the honour they had shown him and his country in according him their confidence and support. The aim of the Conference is to produce efficient plans for equitable sharing of the available spectrum in the medium-frequency band for the maritime mobile and aeronautical radionavigation services in Region 1. The fact that other frequency bands were also available for those services might be helpful if it proved impossible to accommodate everyone's wishes in the bands under consideration. But with goodwill and mutual cooperation, he was confident of the Conference's success.

3. Election of the Vice-Chairmen of the Conference

3.1 The Secretary-General said that following discussions, Heads of Delegation were unanimous in recommending that there should be two Vice-Chairmen of the Conference, namely Mr. D. STAMATOV (Bulgaria) and Mr. M.S. BCHINI (Tunisia).

Mr. Stamatov and Mr. Bchini were elected as Vice-Chairmen of the Conference.

4. Address by the Secretary-General

The Secretary-General delivered the address reproduced in Annex 1.

5. Conference structure

5.1 The Secretary-General presented his Note on the structure of the Conference (Document DT/1).

The structure outlined in Document DT/1 was approved.

6. Election of the Chairmen and Vice-Chairmen of the Committees

6.1 The Secretary-General said that, following discussions, Heads of Delegation had been unanimous in making the following recommendations:

Committee 1 (Steering): to comprise the Chairman and Vice-Chairmen of the Conference and of other Committees

Committee 2 (Credentials): Chairman - Mr. J.F. PATRICIO (Portugal)
Vice-Chairman - Mr. P. SONFACK (Cameroon)

Committee 3 (Budget Control): Chairman - Mr. S.S. AL-BASHEER (Saudi Arabia)
Vice-Chairman - Mr. V.F. HORVATH (Hungary)

Committee 4 (Technical Criteria): Chairman - Mr. E. GEORGE (Federal Republic of Germany)
Vice-Chairman - Mr. V.G. ELEFTERIOU (Ivory Coast)

Committee 5 (Planning): Chairman - Mr. T. BØE (Norway)
Vice-Chairman - Mr. V. SCEPOTIN (USSR)

Committee 6 (Agreement and Procedures): Chairman - Mr. S. CHALLO (Kenya)
Vice-Chairman - Mr. Z. KUPCZYK (Poland)

Committee 7 (Editorial): Chairman - Mr. J.-L. BLANC (France)
Vice-Chairman - Mr. M. DAVIES (United Kingdom)
Vice-Chairman - Mr. F. PITERA-CALVET (Spain)

The recommendations were approved.

7. Composition of the Conference Secretariat

7.1 The Secretary-General said that, in addition to himself as Secretary, the Conference Secretariat would consist of:

Executive Secretary - Mr. R. MACHERET (SG)

Technical Secretary - Mr. M. HARBI (IFRB)

Administrative Secretary - Mr. J. ESCUDERO (SG)

Plenary Meeting and Committee Secretary - Mr. A. MACLENNAN (SG)

Committee 2 Secretary - Mr. R. MACHERET (SG)

Committee 3 Secretary - Mr. R. PRELAZ (SG)

Committee 4 Secretary - Mr. O. VILLANYI (IFRB)

Committee 5 Secretary - Mr. G. KOVACS (IFRB)

Committee 6 Secretary - Mr. J. BALFROID (IFRB)

Committee 7 Secretary - Mr. P.A. TRAUB (SG)

Operational Support for Computer Services - Mr. H. ALLEBROECK (SG)

and any other necessary secondments from ITU Headquarters staff.

8. Allocation of documents to Committees

The draft allocation of documents to Committees (Document DT/3) was approved.

9. Participation requests submitted by international organizations

9.1 The Secretary-General said that a formal application for admission to the Conference had been received from the International Air Transport Association, in addition to those listed in Document 28. Precedent was in favour of acceding to those requests. Subject to the Conference's approval, the organizations concerned would be informed that they could participate in its proceedings in an advisory capacity.

It was so agreed.

10. Date by which the Credentials Committee must submit its conclusions

10.1 The Secretary-General proposed that the date by which the Credentials Committee must submit its conclusions should be fixed in accordance with previous practice at Monday, 11 March 1985.

It was so decided.

11. Working hours of the meetings of the Conference

11.1 The Secretary-General proposed that, in the interests of efficiency and economy, the Conference's normal working hours should be from 0900 to 1200 hours, and from 1400 to 1700 hours except on Friday, when afternoon meetings would be from 1430 to 1730 hours to meet the wishes of a number of delegations.

It was so decided.

12. Financial responsibilities of administrative conferences

The Secretary-General drew attention to the relevant provisions of Article 80 of the Convention and Resolution No. 48 of the Nairobi Conference (Document 20, Annexes 1 and 2). He proposed that the Plenary Meeting should take note of the document and refer it to the Budget Control Committee for any suggestions it might wish to make to the Conference.

It was so agreed.

13. Final date for the submission of requirements and some related matters

13.1 The delegate of Sweden proposed that, in view of the brief time available for planning exercises, a date limit should be fixed during the first week of the Conference for the submission of requirements to the IFRB. He suggested that it be Wednesday, 27 February.

After a brief discussion, it was agreed that the time limit should be noon on Thursday, 28 February, but that delegations whose requirements were already known should submit them as soon as possible to facilitate the work of the IFRB.

13.2 The delegate of Sweden also urged that a preliminary check should be made of some aspects of requirements already submitted. Bandwidths had been indicated differently in some cases and he suggested that administrations should consider for the maritime mobile service A1A and F1B transmissions a bandwidth of 100 Hz and for J3E SSB transmissions a bandwidth of 2.8 kHz. For the aeronautical radionavigation service, 850 Hz was the commonest type of bandwidth but 2.04 kHz was also used. He asked administrations to reconsider the need for separate frequencies for A1A and F1B transmissions at the same station. He also hoped that the range indicated could be shortened in many cases, since otherwise it would not be possible for the Plan to fulfil all requirements. Efforts should also be made to limit coast station service to daytime use only. He further asked delegations to check existing entries in the International Frequency List in the bands concerned which would require protection during planning and said that if any assignments no longer corresponded to existing stations, they should be deleted.

Administrations should indicate assignments to stations of permitted services for which they did not require protection during the planning process. For entries in the IFL which did require protection, administrations should verify whether the indicated range was really necessary and also whether the necessary bandwidth indicated for assignments could be reduced.

In answer to an intervention by the delegate of Finland, he conceded that a bandwidth of 100 Hz might cause difficulties for F1B transmissions for which the bandwidth was generally 304 Hz.

13.3 The Chairman of the IFRB asked delegations to use the appropriate form for submitting modifications to their requirements. Modifications submitted in response to the IFRB's circular-letter should be transmitted to the Technical Secretary of the Conference.

He drew attention to the need for the Conference to decide what action should be taken in respect of administrations which had not submitted their requirements for coastal stations and aeronautical radionavigation beacons in response to IFRB Circular-letter No. 554. Finally, he assumed that, as was customary, the Conference would take into account the interests of administrations not represented at the Conference.

13.4 The Secretary-General confirmed that it was customary for the IFRB to look after the interests of such administrations. He had noted that there might be some discrepancies between what was published in the International Frequency List and in Lists IV and VI; due account should be taken of Lists IV and VI because they represented operational information. An appropriate telegram would be sent to administrations not represented at the meeting in connection with the cut-off time for receipt of requirements, and indicating that the IFRB would look after their interests.

It was so agreed.

13.5 In response to a request by the delegate of the Netherlands, the Chairman of the IFRB said that the Board would submit information concerning actual use in the permitted services in certain bands to supplement the information given in Document 26.

13.6 The delegate of Sweden said that a review of existing assignments in the bands to be planned should also be made at an early stage in the Conference, and delegations should submit amendments to the IFRB by noon on Thursday, 28 February.

13.7 The Chairman of the IFRB added to the list of items calling for an early decision by the Conference the need to define appropriate protection to frequency assignments to stations of other services to which the bands in question were also allocated. The Conference should decide whether or not to adopt the proposal submitted by one administration concerning the utilization of a planning method and associated computer program and it should also decide on the technical criteria to be used during the planning process.

13.8 The Chairman said that appropriate protection might be considered by Committee 5, and he thought there would be a large measure of unanimity in Committee 4 on technical criteria, so no further decision regarding that would be necessary.

13.9 The delegate of France pointed out that although very full information regarding technical criteria had been submitted by the CCIR, it would be necessary for Committee 4 to examine them and decide whether they could be used before transmitting them to Committee 5.

The meeting rose at 1600 hours.

The Secretary: The Chairman:

R.E. BUTLER M. HAHKIO

Annex: 1

ANNEX

Address by the Secretary-General of the ITU

Mr. Chairman,
Ladies and Gentlemen,

In the first place, allow me to congratulate you Mr. Chairman on your appointment to guide the work of this Conference, and at the same time it gives me great pleasure on behalf of my colleagues and on my own behalf to welcome all of the participants to Geneva. I am convinced that you are about to embark upon a very busy, and I trust very successful, three weeks' work. Today the Regional Administrative Radio Conference for the Maritime Mobile Service and the Aeronautical Radionavigation Service in Certain Parts of the MF Band will start its work and the Regional Administrative Radio Conference for the Planning of Frequencies for Maritime Radiobeacons in the European Maritime Area will be convened in one week's time, on 4th March 1985.

The importance of these Conferences is beyond doubt, having been discussed during the WARC-79, during the Plenipotentiary Conference, which adopted Resolution No. 7 concerning the need for appropriate action, and latterly during the WARC-MOB-83 which in its Resolution No. 704 (MOB-83) and Recommendation No. 602 (Rev.MOB-83) provided the bases for the agendas which have determined your work during the Conferences. These agendas are very specific and the Administrative Council of the Union decided in consultation with the Members of your Region or zone, as appropriate, the duration of the Conferences after careful consideration of the volume of work to be accomplished.

The members of the Secretariat of the Conferences and the other participating officials from the Headquarters of the Union have been drawn from the different permanent organs and are here to help you with your work in every possible way.

Mr. Chairman,

The time at your disposal is very limited but I am sure that the traditional goodwill and competence which characterises ITU Conferences and meetings will prevail and that you will be successful in preparing the plans and agreements necessary to bring the Conferences to a satisfactory conclusion.

Before concluding these brief remarks I wish to acknowledge the gratitude of the Union for the contribution to the work of these Conferences by other international organisations which are vitally concerned with developments in this particular field of telecommunications. I am of course referring to the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO) and the International Association of Lighhouse Authorities (IALA). Representatives of ICAO and, subject to your decision later this afternoon, IALA and other interested organizations will be available to participate in your deliberations as observers. We appreciate their cooperation very much.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 40-E
27 February 1985
Original: English

COMMITTEE 6

SUMMARY RECORD

OF THE

FIRST MEETING OF COMMITTEE 6

(AGREEMENT AND PROCEDURES)

Tuesday, 26 February 1985, 1045 hrs

Chairman: Mr. S. CHALLO (Kenya)

Subjects discussed:	Document
1. General discussion of the terms of reference of the Committee	33
2. Organization of the work of the Committee	34, DL/3

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. General discussion of the terms of reference of the Committee (Document 33)

1.1 The Chairman invited the Committee to consider its terms of reference as set out on page 3 of Document 33, which the Plenary had approved at its first meeting. It would be seen that the terms of reference comprised four items. With regard to the first of those items, namely the establishment of an agreement in certain frequency bands in Region 1 the Chairman proposed that United Kingdom Document 9(Rev.1) should be used as a working document by the Committee.

It was so agreed.

The terms of reference of the Committee were approved.

2. Organization of the work of the Committee (Documents 34 and DL/3

2.1 The Chairman drew attention to the list of documents allocated to Committee 6 which had been approved during the first Plenary Meeting (Document 34) and invited the sponsors to introduce those parts of the documents which were relevant to the work of the Committee.

2.2 The delegate of Greece said that he would prefer to introduce Document 4 at a later stage.

2.3 The delegates of the German Democratic Republic, Netherlands, USSR, United Kingdom and France introduced the relevant parts of Documents 5, 7, 8, 9(Rev.1), 10, 13, 16 and 17, respectively.

2.4 The delegate of the Netherlands, referring to the proposal by France contained in Document 16, said that the proposed Recommendation F-A, if approved by the present Conference, would have to specify the precise manner in which the World Conference scheduled for 1987 should proceed with regard to the action outlined in section III of the Recommendation.

2.5 The delegate of Sweden introduced the relevant parts of Document 15.

2.6 The representative of the IFRB, introducing the note contained in Document 22, said that the Board had proceeded on the assumption that appropriate protection was to be given to existing assignments to permitted services. If Committee 5 took a decision to disregard assignments to permitted services, it would be incumbent upon Committee 6 to consider what action should be taken with respect to assignments recorded in the Master Register. The Board would then have to examine the Conference's decision in the light of the Convention and the Radio Regulations. The work of Working Group 6A would be greatly facilitated if any decisions adopted on the matter by Committee 5 were made known to Committee 6 as promptly as possible.

2.7 The delegate of the Netherlands drew attention to proposal HOL/7/13 (Document 7), which suggested a practical solution to the problem just raised, namely, that replacement frequencies for assignments in the permitted services should be found in the period between the Conference and the entry into force of its Final Acts.

2.8 The delegate of Spain said he was glad to note that Document 22 submitted by the IFRB agreed in most respects with the proposals made by Spain in Document 6.

The Conference afforded the first opportunity for many years for the planning of frequency bands for Region 1 and he stressed the need to take a broad and innovative view of future developments.

2.9 The delegate of France was pleased to see that the Spanish proposals coincided with those of his delegation on most points. However, with reference to Annex II.5 of Document 6, he believed that the possible utilization of certain frequency bands was outside the scope of the present Conference and should be proposed to the Administrative Radio Conference due to take place in 1987.

The meeting rose at 1205 hours.

The Secretary: The Chairman:

J. BALFROID S. CHALLO

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Document 41-E
26 February 1985
Original: English

COMMITTEE 4

Federal Republic of Germany

PROPOSALS FOR THE WORK OF THE CONFERENCE

The establishment of a frequency assignment plan for the maritime mobile service in the bands 415 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz will be facilitated by the use of directional antennas. The annex contains information on this matter which supplements that of CCIR draft Report AO/8.

Annex: 1

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ANNEX

Directional antennas for the 500 kHz and 2 MHz bands

1. Introduction

At the interim meeting of CCIR Study Group 8, the Administration of the Federal Republic of Germany reported on laboratory experiments and plans for construction of directional antennas for the 2 MHz band, which are included as "Draft Report AO/8" in the interim conclusions.

The interim meeting expressed the wish that the work be extended to cover directional antennas for the 500 kHz band.

The following reports on further developments in both sectors.

2. Directional antennas for the 2 MHz band

Figure 1 of the above-mentioned report shows such a directional antenna, in which the guy ropes are included as director and reflector elements in the antenna system.

Further investigations for monopole antennas with a length of approximately 0.4..0.6 λ showed that the radiation diagrams can be improved to a further considerable degree if the reflectors and directors have a length of approximately $\lambda/2$.

In addition, the effect of the ground network on the radiation diagram is reduced decisively, which means that extensions of the ground network are unnecessary when existing antennas are converted into such directional antennas.

Figure 1 shows an antenna for the simultaneous radiation of two frequencies which is planned by the Telecommunications Administration of the Federal Republic of Germany.

Guy rope 1 is used as a $\lambda/2$ director tuned to the upper working frequency of 2 775 kHz.

Guy ropes 2 and 3 are used as $\lambda/4$ reflectors and are tuned to the lower working frequency of 1 918 kHz. Extensions to the existing ground network are then not necessary.

3. Directional antennas for the 500 kHz band

3.1 Combination of loop antenna and electrical antenna

Directional antennas such as those described in section 2 are, due to the large wave length, generally not possible; in this frequency range, however, a magnetic antenna such as a loop antenna can be combined with an electrical antenna, a combination which is common in direction finding antennas. This results in a cardioid radiation diagram.

Laboratory experiments with the scale model prove that such an antenna system can be implemented (see Figure 2).

The main problem of such a transmitting antenna is its low radiation resistance. For this reason, it is important to have the largest possible loop area A_L. The most favourable solution is a winding with a circumference $S_L = \lambda/2$.

The minimum point in horizontal radiation diagram and the distribution of current between the electrical and magnetic antennas can be adjusted with capacitor C 1, while capacitor C 2 is used for adjusting the resonant frequency.

Figure 3 shows a further alternative with a grounded mast. The antennas can be dimensioned such that the otherwise necessary transformation circuit between transmitter, cable, and antenna can be omitted. This makes the directional antenna cheaper than an omnidirectional antenna. Due to the high currents in the loop, such an antenna is most suitable for low transmission powers of less than or equal to 5 kW and for use as a receiving antenna.

3.2 Directional antennas with asymmetrical ground networks

Investigations in the Federal Republic of Germany on the effects of asymmetrical ground networks of monopole antennas on the radiation diagrams showed a major effect on the radiation diagrams for radiators of 0.25 λ and a very slight effect for radiators of 0.5 λ.

Antennas for the 500 kHz band (0.1 λ..0.2 λ) can therefore be used as directional antennas by including a sector-shaped ground network (Figure 4).

4. Conclusion

The experiments show that directional antennas for transmitter powers up to approximately 10 kW can be implemented for the maritime bands around 500 kHz and 2 MHz with remarkably simple means. The costs and space requirements are not larger than for conventional omnidirectional antennas.

This result is achieved by the fact that the guy ropes of the transmitter masts are included, either as directional elements or as a loop antenna, in the antenna system. This saves space, costs, and additional masts.

The inclusion of directional antennas can considerably simplify frequency planning. Distortions in the directional diagrams due to mutual coupling of several antennas at the same site is also decisively reduced.

Figure 1: Planned directional antenna for two frequencies for the transmitter station Kiel Radio

Legend to Figure 1:

1) Frequency range
   2 MHz band

2) Insulators

3) D $\lambda/2$ guy rope as director for f_1 = 2 775 kHz

4) R_1 and R_2 guy ropes as $\lambda/4$ reflectors for f_2 = 1 818 kHz

5) Electrically neutral guy ropes

6) Ground connection

7) Tuning network

8) Open end (length can be adjusted for tuning)

9) Transmitter 1

10) Transmitter 2

11) Expected horizontal diagram

12) Expected vertical diagram

Figure 2: Planned MF directional antenna for the 500 kHz band; combination of loop and electrical mast antenna

Legend to Figure 2:

1) Loop with length of less than 300 m

3) Isolated mast as electrical antenna

4) Guy ropes used as loop antenna

5) Tuning capacitors

6) Coupling loop

7) Transmitter

Figure 3: As Figure 2, but with grounded mast

Legend to Figure 3:

1) Loop length

2) Guy ropes as loop antenna (if necessary, two windings)

3) Grounded mast

4) Horizontal diagram

5) Tap for adjusting current distribution

6) Tap for transmitter coupling

7) Tuning capacitor

8) Transmitter

Figure 4: MF directional antenna by use of asymmetrical ground networks

Legend to Figure 4:

1) Vertical diagram for asymmetrical ground network

2) Vertical diagram for symmetrical ground network

3) Ground network

4) Horizontal diagram

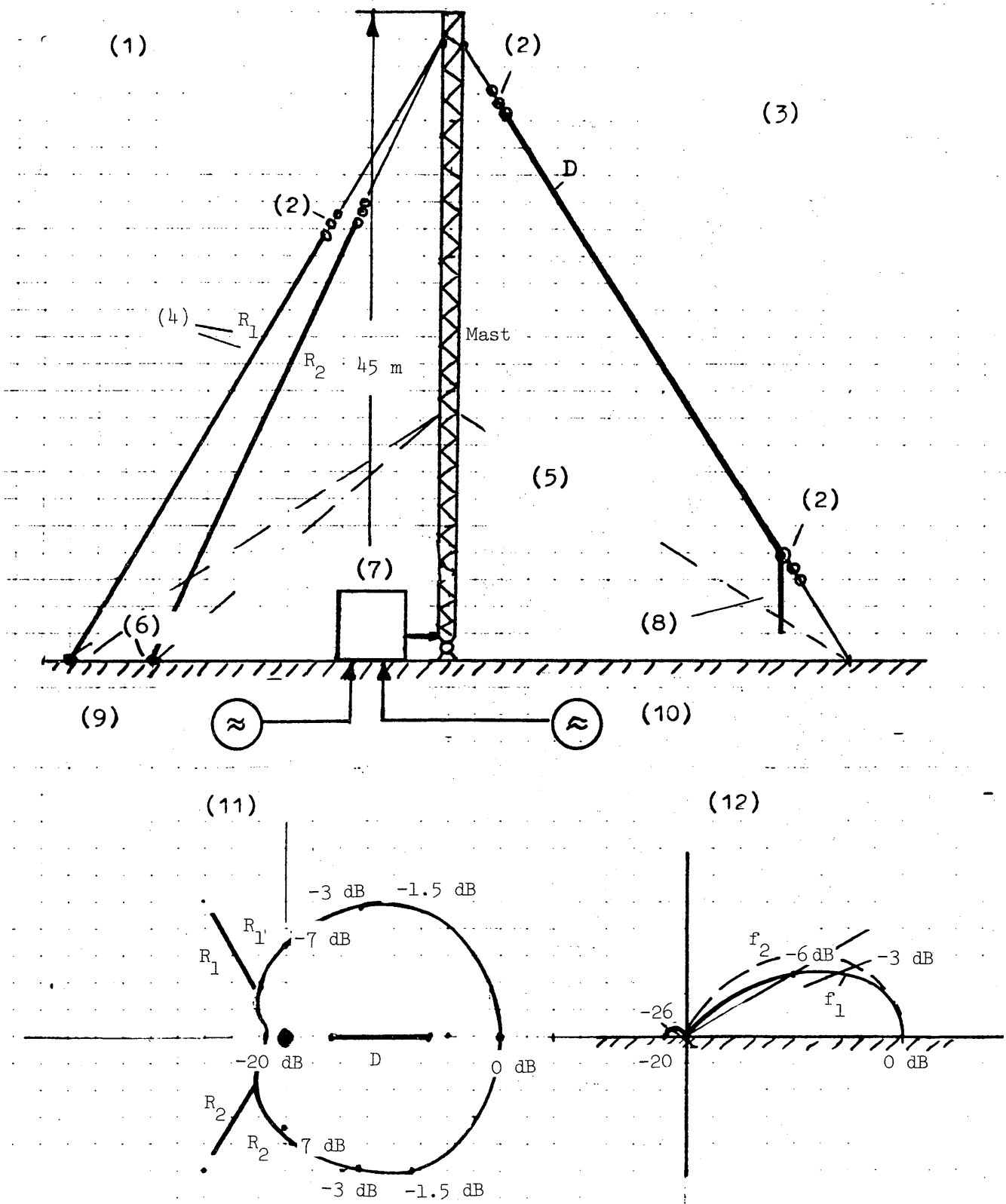
(1)
(2)
(3)
D
(2)
(4)
R1
R2
45 m
Mast
(5)
(2)
(7)
(6)
(8)
(9)
(10)
(11)
(12)
-3 dB
-1.5 dB
R1'
-7 dB
R1
-20 dB
D
0 dB
R2
R2
7 dB
-3 dB
-1.5 dB
f2
-6 dB
-3 dB
f1
-26
-20
0 dB

FIGURE 1

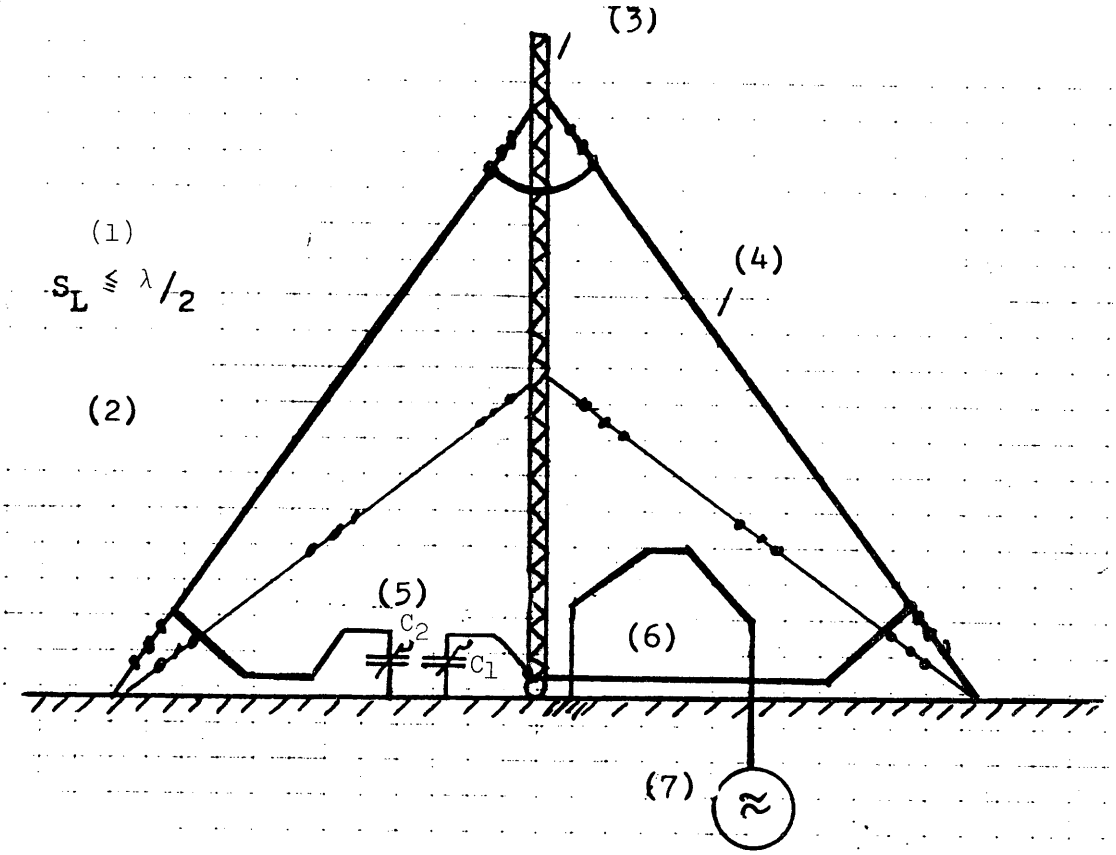

FIGURE 2

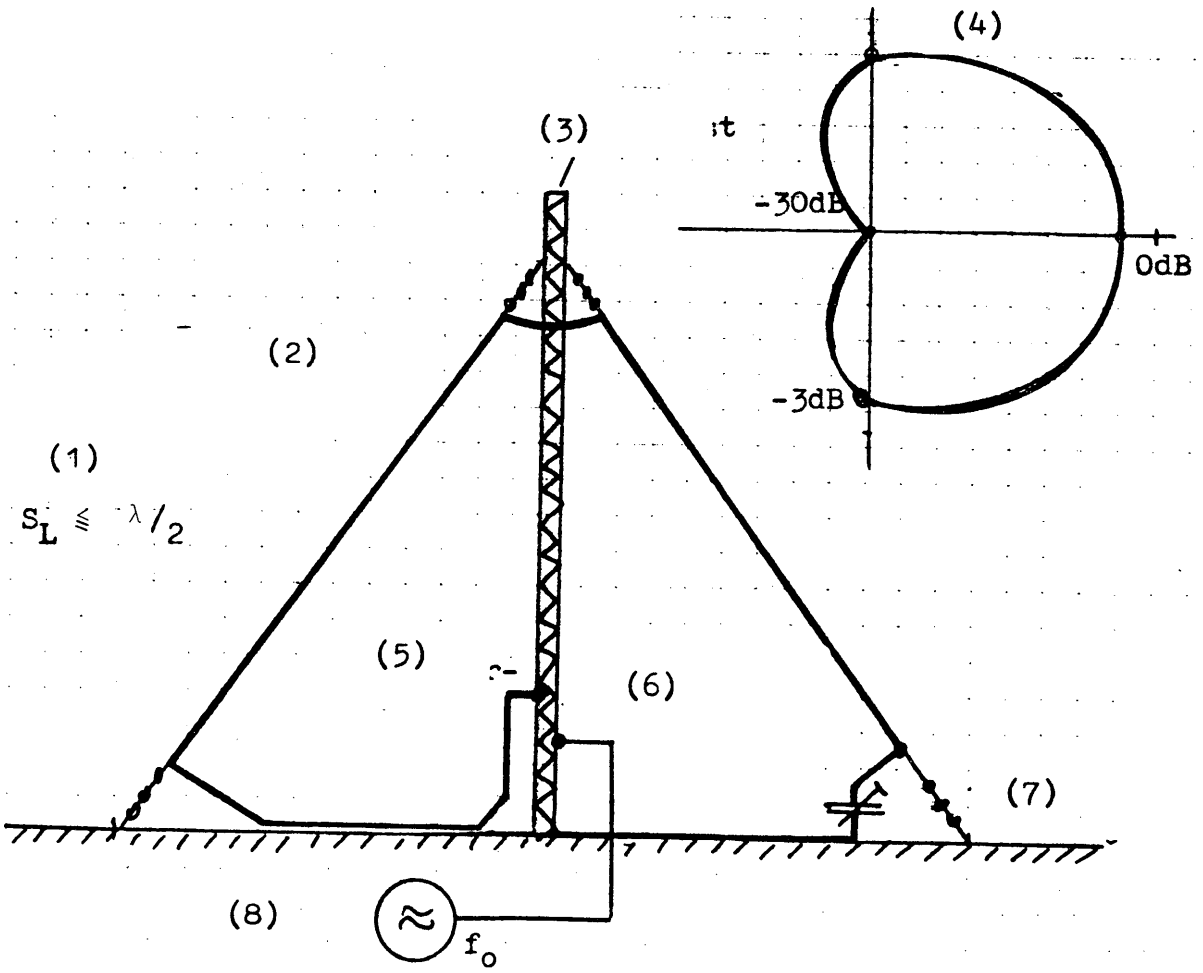

FIGURE 3

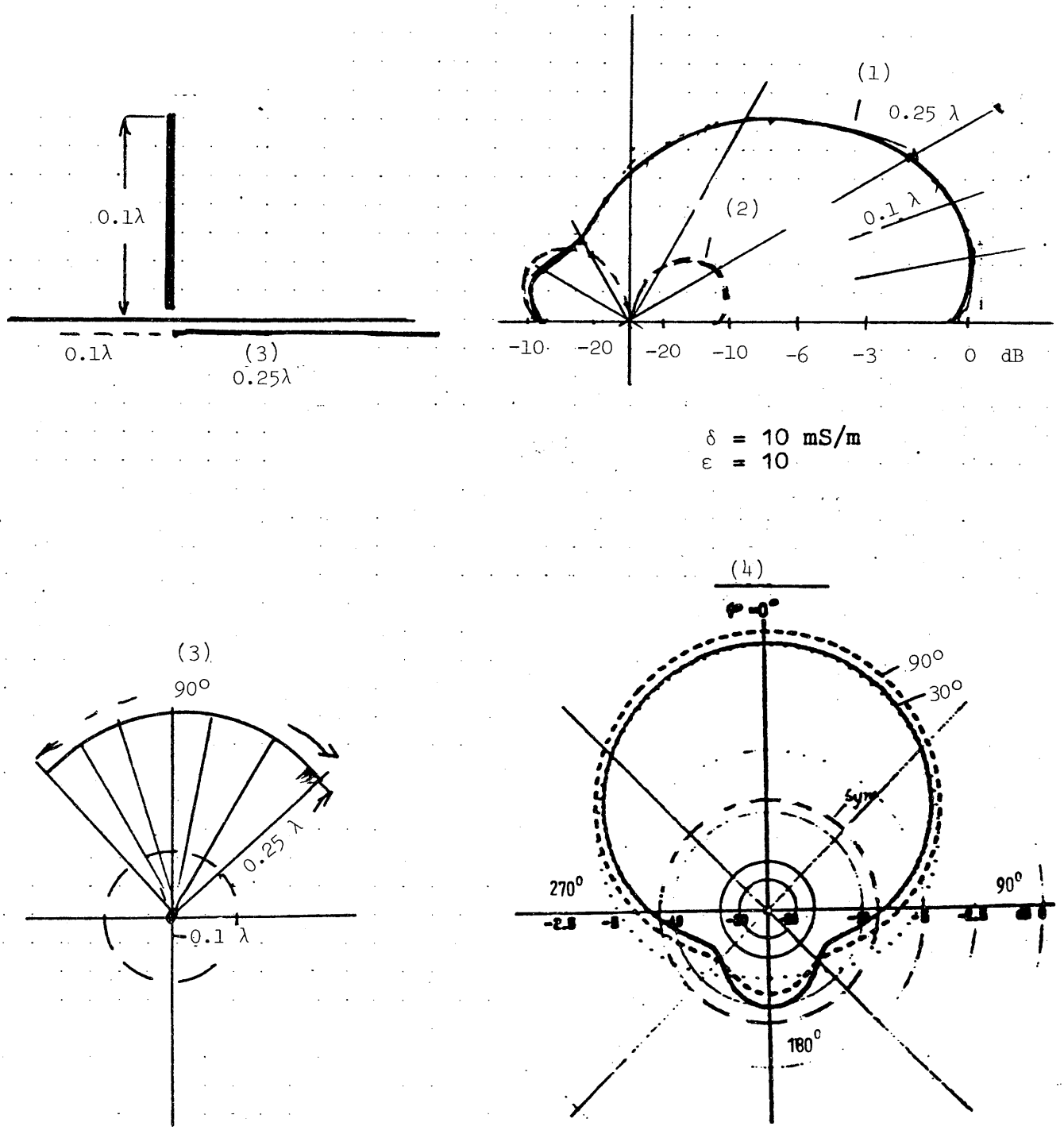
0.1λ
0.1λ
(3)
0.25λ
(1)
0.25 λ
(2)
0.1 λ
-10
-20
-20
-10
-6
-3
0
dB
δ = 10 mS/m
ε = 10
(3)
90°
0.25 λ
0.1 λ
(4)
90°
30°
270°
90°
180°

FIGURE 4

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 4

Spain

ANTENNA EFFICIENCY

1. It is advisable to have a specific criterion for antenna efficiency, since its value will determine the value of e.m.r.p. It is a priori not easy to determine since efficiency can be affected by many factors (see the 1 to 30% variation noted in CCIR Report 910). For coast stations, however, we believe that the values given below may be useful.

- 2 MHz band

  Although the data given by manufacturers indicate values varying between 25 and 30%, since these values may be overestimated, it is preferable to take a figure of 20%.

- 500 kHz band

  Data in this band are even less precise, even though it is a band with longer wavelengths; we propose considering a value of 15%.

2. At the same time it is worth pointing out that although the e.m.r.p. values obtained from the application of Recommendation 368 for typical coverage areas (400 to 600 km) may appear small for the specified field strengths (Documents 3, 6 and 15) above the parallel 30°N, these e.m.r.p. values increase appreciably when field strengths specified south of that parallel are considered. If the previously proposed efficiency values are taken into account, it may be observed that the power values delivered to the antenna (Pt) are more in line with the values currently used by the administrations.

3. Example

- Morse telegraphy (500 kHz band)

  - field strength: 30 dB(1μV) > 30°N
    45 dB(1μV) < 30°N

  - coverage area: 550 km

  - antenna efficiency: 15%

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We shall obtain:

	> 30°N		< 30°N	
	e.m.r.p.	Pt	e.m.r.p.	Pt
W	63	420	794	5,295
dBW	18	26.2	29	37.2

- Telephony (2 MHz band)
  - field strength: 34 dB(1μV) > 30°N
    49 dB(1μV) < 30°N
  - coverage area: 400 km
  - antenna efficiency: 20%

	> 30°N		< 30°N	
	e.m.r.p.	Pt	e.m.r.p.	Pt
W	50	250	1,584	7,920
dBW	17	24	32	38.9

It may be seen that south of the parallel 30°N power levels are very high, even higher than those normally used.

INTERNATIONAL TELECOMMUNICATION UNION
REGION 1 **RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1**
GENEVA, FEBRUARY/MARCH 1985

Document 43-E
27 February 1985
Original: English

COMMITTEE 5

Kenya

PROPOSALS FOR THE WORK OF THE CONFERENCE

1. Introduction

The Kenyan Administration considers this Conference as a very important one as regards the use of the MF band in Region 1 by both the maritime and aeronautical communities. The Conference is therefore called upon to reflect upon the possibilities of enhancing the use of the bands concerned in accordance with the agenda. For this purpose, the Kenyan Administration is hereby submitting a number of proposals for consideration by the Conference as follows.

2. Proposals related to agenda item 2.1

2.1 Planning and use of the frequency band 415 - 435 kHz

It is proposed to the Conference to draw a frequency assignment plan in this band exclusively for radiobeacons in the aeronautical radionavigation service. All maritime mobile assignments currently allocated in this band should be transferred to the band 435 - 526.5 kHz.

Reason: The current trend shows an increasing demand for frequency assignments for aeronautical radionavigation which should be given due attention by the Conference because this service is primarily a safety service.

2.2 Replacement of frequency 425 kHz

Since this Conference may establish a frequency assignment plan for aeronautical radiobeacons in the band 415 - 435 kHz, continued use of frequency 425 kHz in Region 1 as an international ship frequency in the maritime mobile service might have negative influence on the implementation of the frequency plan for the aeronautical radiobeacons. It is therefore desirable to delete this service from the band altogether and provide a replacement frequency for it in the sub-band 450 - 461 kHz.

However, this raises a fundamental issue which would see the revision of RR4237, a decision which the Conference cannot take; it can, on the other hand, address a special resolution to this effect for the attention of the competent Conference.

3. Proposals related to agenda item 2.3

3.1 Transfer of assignments in the permitted services which shall be found incompatible with frequency assignment plans for primary services in the same bands

In order to establish the plan, all existing assignments to stations of the permitted services in that band should not be taken into account. At the implementation of the plan, any assignment in a permitted service found to be incompatible with an assignment in the primary service would have to be given up under a transfer procedure which the Conference should adopt.

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4. Proposals related to agenda item 2.5

4.1 Channelling arrangements

With respect to the bands in question, the channelling proposals which are found in Resolution No. 704 of WARC-MOB-83 should be considered as suitable guidelines. In the bands 435 - 526.5 kHz, a frequency assignment plan could be drawn up for Morse telegraphy. Narrow-band direct printing and digital selective calling services using a certain maximum number of pairs of RF channels, except for the channel pairs associated with frequencies 468 kHz and 480 kHz (international ship station frequencies) whose counterparts should be made available.

Regarding frequency bands 1 635 - 1 800 kHz and 2 045 - 2 141.5 kHz which are available for radiotelephony in the maritime mobile service, a significant number of RF channels are required due to the expected increase in radiotelephony traffic.

5. Proposal relating to agenda item 2.6

5.1 Date of entry into force of the assignment plan

It is proposed that a fairly long period of time for the implementation of the plan in the bands in question would be inevitable. For developing countries, an immediate implementation of this plan might mean substantial financial outlays with respect to existing ship radio equipment.

Therefore, the earliest date of entry into force is recommended to be January, 1997.

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GENEVA, FEBRUARY/MARCH 1985

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25 February 1985
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COMMITTEE 4

France

RADIATED POWER IN COAST STATIONS

It is necessary for planning purposes to establish a correspondence between the field strength which is necessary for a type of service and the power which is radiated by the coast stations. The CCIR report to CARR shows that on 500 kHz, at a distance of 400 km, a radiated power of 5 watts can produce the required field strength of 30 dB(μV/m) for the class of emission A1A. The CCIR report in § 3.1 states that sky wave effects may occur which can also have an impact on the signal-to-noise ratio.

Two factors should then be considered. The first factor is the atmospheric noise; it has been taken into account in the CCIR report for a protection during 90 per cent of the time. The interference between two waves e.g. the sky wave and the ground-wave is a second factor considered by the CCIR report to CARR which may cause fading.

Noise and fading have an impact on the signal to noise ratio. If an overall value of the S/N ratio is to be obtained during 90 per cent of the time each factor, atmospheric noise and fading should be taken into account and compensated during 95 per cent of the time. This represents an increase by 4 dB of the field strength.

The sky wave may reach, at distances inferior to 1000 km, values that may be estimated 8 dB lower than the ground-waves. Application of the RICE law (see Document 21 of the CARR) results in an increse of the field strength by 10 dB to overcome the fading during 95 per cent of the time. This figure of 10 dB can also be found in Recommendation 339-5 of the CCIR.

From that we can see that the overall increase in power which is necessary is 14 dB and that the radiated power which is necessary to perform the A1A transmission at 400 km is 125 watts and not 5 watts.

The proposal of France is to increase by a unique margin of 14 dB the power of coast stations which is calculated by using the propagation curves of the CCIR given in Recommendaton 368-4.

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INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Document 45-E
1 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

FIRST MEETING OF COMMITTEE 4

(TECHNICAL)

Tuesday, 26 February 1985, at 0900 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:	Document
1. Terms of reference of the Committee and general observations on the conduct of the work	33, 34
2. Consideration of technical parameters necessary for the establishment of frequency assignment plans in Region 1:	-
For the maritime mobile service (415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz)	DT/4, 3 6 + Corr.1, 2 and 3 and Add.1, 8, 15 + Add.1, 21

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1. Terms of reference of the Committee and general observations on the conduct of work (Documents 33 and 34)

1.1 The Chairman, drawing attention to the terms of reference of Committee 4 set forth in Document 33, pointed out that in accordance with the schedule of work of the Conference, work on the technical parameters necessary for the establishment of frequency assignment plans in Region 1 had to be completed by the end of the afternoon meeting of Thursday, 28 February; the rest of the Committee's work had to be completed by the end of the afternoon meeting of Friday, 1 March. Since so little time was available, all the work would be done by the full committee, unless a particular problem called for the establishment of an ad hoc Group. Attention was drawn to the allocation of documents given in Document 34, to which Document 24 might usefully be added for Committee 4.

2. Consideration of technical parameters necessary for the establishment of frequency assignment plans in Region 1

For the maritime mobile service: 415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz (Documents DT/4, 3, 6 + Corr.1, 2 and 3 and Add.1, 8, 15 + Add.1, 21)

2.1 The Chairman suggested that, contrary to usual practice, there should be no general introduction of documents under each agenda item, but rather they should be introduced in relation to specific subjects.

It was so agreed.

2.2 The Chairman drew attention to Document DT/4, containing an analysis of proposals and a list of the parameters to be considered. Document 21, dealing with specific propagation matters, had not been included, but would not be overlooked. He invited the Committee to begin by considering section 1.1 of the annex to Document DT/4 (band around 500 kHz).

2.3 The delegate of Spain introduced the Spanish proposals in Documents 6 + Corr.1, 2 and 3 and Add.1.

2.4 The delegate of Sweden introduced the NOR/S proposals in Documents 15 + Add.1.

2.5 The Chairman suggested that the propagation question be tackled step by step starting with ground-wave propagation. In that connection, he took it that the Committee had no difficulty in accepting the sea water curve for propagation over sea, where $\varepsilon=70$ and $\sigma=5$.

It was so agreed.

2.6 The Chairman, turning to propagation over land, pointed out that Document 3 from the CCIR contained a general indication that other combinations for land or mixed paths be used; the Spanish document provided three specific curves, and Document 15 contained a compromise to use the curve for wet ground, where $\varepsilon=30$ and $\sigma=10^{-2}$.

2.7 The Chairman of the IFRB said that before going into details it was important to note Sweden's proposal to have its computer program used for the planning, and the software developed by the IFRB (Document 31) for the analysis. The Committee should also bear in mind what was feasible in terms of changes to the software in the course of the Conference, given that certain assumptions had had to be made in the absence of a first session to agree on technical standards and planning methods. He would comment on each of the standards as they arose to see whether they could be incorporated into the Swedish program, if it were adopted by Committee 5.

2.8 The delegate of Sweden said that the propagation factor was tabulated in the program, and although it could be changed, it would be very difficult to have three types of propagation curves as proposed by Spain. Furthermore, if there were to be any change, the ground constants as a function of the geographical area would be needed.

2.9 The delegate of the Federal Republic of Germany said that his Administration had discovered that the curve for wet ground best suited the requirements. It therefore supported the Swedish proposal.

2.10 The delegate of the United Kingdom suggested that the Committee might look ahead to see how the land values would be used. The delegate of Sweden said that his Administration did not have the coastline fed into its database. The Chairman of the IFRB said that the same was true of the IFRB software. The Board used default values: for coast stations and maritime beacons, it used sea curves, and for aeronautical beacons it used land curves.

2.11 The Chairman said that, given the impossibility of making accurate calculations of mixed paths, a simple approach, as outlined by Sweden and the IFRB, would have to be taken and calculations would therefore only be based on the constants for sea water where the maritime mobile service was concerned.

2.12 The delegate of France supported that view. The computer could not be expected to solve all the problems and while it was an essential aid many calculations would have to be done manually.

2.13 The Chairman, summing up, said that as the Committee appeared to agree that for the computer calculations, only the sea water constants could be used for the maritime service, the next question was which curve should be used.

2.14 Following explanations on the four sets of propagation curves used by the Swedish Administration, and the suggestion by the delegate of Spain, supported by the delegate of the United Kingdom, that a single curve might be used, since there would not be a significant difference in predicted field strength over sea paths, it was agreed to use the 500 kHz curve only for the whole of the maritime band in question.

2.15 The Chairman, turning to sky wave propagation, asked for views on the possibility of adapting the simpler method proposed by Norway and Sweden to cover the more complex procedure proposed by Spain.

2.16 The delegate of Sweden said that although several propagation curves could be read into the computer planning program to enable it to be used for the lower and Southern hemisphere latitudes covered by Spain's proposals, it was not possible to incorporate geomagnetic latitude into the program as an additional parameter.

2.17 The Chairman of the IFRB pointed out that the Board's incompatibility analysis program used a single curve for sky-wave propagation at 500 kHz, and that it would not be possible to input additional data for all the calculations needed to analyze the complete plan. As matters stood, the data capture program, the incompatibility analysis program and the Swedish planning program described in Document 31 could function as a single computer software pack.

2.18 Following informal consultations, the Chairman said it had been concluded that the Swedish computer program could apply sky-wave propagation curves for only two different geomagnetic latitudes. Subject to the Committee's approval, the best available compromise within the existing constraints seemed to be that the curve for geomagnetic latitude 50°N should be used for coast stations located above 20°N, and the curve for geomagnetic latitude 30°S for those below 20°N. The curves would be those for 500 kHz in the case of the band around 500 kHz.

2.19 The delegate of Spain observed it had also been agreed that the curves proposed by his Administration in Document 6 could be used to analyze incompatibilities by administrations case by case for purposes of detailed planning.

2.20 The Chairman confirmed that point and said that a draft report incorporating the Committee's conclusions on the subject would be prepared for transmission to the Planning Committee.

2.21 The Chairman then sought clarification of the difference between the Spanish and the joint Norwegian/Swedish proposals on the purposes for which ground-wave and sky-wave curves were to be used.

2.22 The delegate of Spain indicated that the difference lay in his Administration's view that where stations operated by night, account should be taken of the possibilities of sky-wave propagation, which had been known to extend up to 5,000 km in the Southern hemisphere. The question might however be one for the Planning Committee to consider and decide.

2.23 The delegate of the Netherlands said that given the difficulties involved in taking account of the possibilities of sky-wave propagation, as opposed to the relative certainty of ground-wave propagation, he believed that it would be better left out of the planning process except in special cases.

2.24 Following a brief discussion in which the delegates of the United Kingdom, France, Denmark and the Netherlands took part, the Chairman said that a report would be submitted to the Planning Committee inviting it to determine whether night-time protection should be afforded and, if so, indicating the various considerations which should be taken into account.

2.25 The Chairman then proposed that the question of propagation in the case of the band around 2 MHz should be settled in the same way as for the band around 500 kHz and that the sea water curve alone should be used for maritime stations. He further suggested that the 2 MHz curve should be adopted for that purpose, and that the same decision should be taken on sky-wave propagation as in the case of the band around 500 kHz.

2.26 The delegate of the United Kingdom warned that there might be complications in using CCIR Recommendation 435 for a frequency of 2 MHz when the upper limit of its experimental validty was 1.6 MHz.

2.27 The delegate of Spain said that examination of the relevant figures in Document 6, Add.1, showed that differences in field strength at frequencies of 1 600 kHz and 1 800 kHz were small in the Northern hemisphere and even less in the Southern. It might be possible to adopt either 2 MHz, 1 800 kHz or 1 600 kHz for planning purposes. The 1 800 kHz curve had been obtained by the method given in Recommendation 435.

2.28 The Chairman said that the 1 800 kHz curve provided a good centre point for the band that too much attention should not perhaps be paid to the fact that the method used to deduce it had no experimental validity above 1 600 kHz. He therefore proposed that the 1 800 kHz frequency curve derived by the method given in Recommendation 435 should be adopted.

It was so decided.

2.29 At the Chairman's invitation, the delegate of France introduced Document 21 insofar as it related to planning criteria.

2.30 The proposals in that document were supported by the delegate of Spain.

2.31 The delegate of the United Kingdom offered clarification on three points: firstly, it must be made clear that the curves used were for effective monopole radiated powers which were about 2 dB higher than the ITU definition for the same curves; secondly, Figure 30 in CCIR Report 322 related to a specific worked example and was therefore not appropriate as a basis for discussion of the general question; thirdly, a fading allowance was appropriate when the sky-wave component of the received signal was important. The question of fading at medium frequencies was discussed in CCIR Report 431 and more generally in Report 266 and it was from those Reports that the representative values in Recommendation 339 were derived.

2.32 The Chairman said that he would take it that the Committee supported the principle of an allowance for fluctuation.

It was so agreed.

2.33 The Chairman suggested that the Committee should discuss the minimum usable field strength values with a view to deciding on a figure for the allowance, and he noted that the proposal by Spain was for a difference of only 15 dB between values for regions North of latitude 30°N and areas South of that latitude, whereas the figure proposed by the CCIR and by Norway and Sweden was 20 dB.

2.34 The delegate of Spain thought that 20 dB was too high for areas South of latitude 30°N as it would involve very high antenna power.

2.35 The delegate of France said that the allowance of 20 dB adopted by the CCIR was, in fact, a median value. The CCIR figures represented 34 dB for radiotelephony and 16 dB for F1B but it was necessary to allow a supplementary margin for overcoming noise during an adequate percentage of the time, e.g. approximately 10 to 15 dB for noise and 6 or 7 dB to overcome fading. Different criteria needed to be taken into consideration for F1B and radiotelephony in order to reach realistic figures.

2.36 Following up a suggestion by the delegate of the United Kingdom, it was decided to set up an ad hoc Working Group under the chairmanship of Mr. Croll (United Kingdom) to discuss the minimum usable field strength as a whole, not only for the band around 500 kHz but also for the 2 MHz band and possibly for the aeronautical radionavigation service in addition, as well as the necessary margin for regions north and south of latitude 30°N as well as the problem of allowances for fading and fluctuation.

2.37 The delegates of France, Italy, the Netherlands and Spain expressed their wish to take part and it was agreed that the ad hoc Group would meet outside the working hours of the Committee itself, provided facilities were available.

2.38 With respect to the co-channel protection ratio, the Chairman pointed out that the figure of 8 dB for both A1A and F1B emissions was given in all the input documents and suggested that the Committee should adopt that figure.

It was so agreed.

2.39 The Chairman said, in relation to the protection ratio for frequency offset, that the question of multiple interference must also be discussed. There were two usual methods of summing up: the power sum method (apparently more appropriate in the present circumstances) and the simplified multiplication method, as used at the VHF Broadcasting Conference.

2.40 The delegate of Sweden said that distribution of stations was not very homogeneous in the services in question so it was unlikely that there would be multiple interference. He suggested that multiple interference was negligible and could be disregarded.

It was so agreed.

2.41 The Chairman noted that the proposal by Norway and Sweden gave the same values for Morse telegraphy and direct printing.

2.42 The delegate of Sweden having justified that proposal, the delegate of Spain said that undoubtedly there would be a transfer from Morse telegraphy (A1A) to narrow-band direct printing (F1B) in the future but at present Morse telegraphy prevailed in his country and if only F1B planning were adopted, selectivity problems for A1A would arise. He therefore advocated that there should be planning for both types of service.

2.43 The delegate of Sweden conceded that there were certain drawbacks for Morse telegraphy but stressed that operators were able to distinguish between wanted and unwanted signals, allowing the use of more stringent selectivity curves for A1A.

2.44 The delegate of the USSR supported the views expressed by the delegate of Spain. In his country, it was essential to take into account a large number of small vessels which widely used Morse telegraphy. Both modes must therefore be taken into account when planning for the future.

The meeting rose at 1200 hours.

The Secretary: The Chairman:

O. VILLANYI E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 46-E
27 February 1985
Original : English

COMMITTEE 2

SUMMARY RECORD

OF THE

FIRST MEETING OF COMMITTEE 2

(CREDENTIALS)

Wednesday, 27 February 1985, at 10:00 hrs

Chairman : Mr. J.F. PATRICIO (Portugal)

Subjects discussed :	Documents
1. Terms of reference of the Committee	2, 33
2. Organization of the Committee's work	-

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Terms of reference of the Committee (Documents 2 and 33)

The participants took note of the terms of reference set out in Documents 2 and 33.

2. Organization of the Committee's work

After recalling that the Committee's report to the Plenary Meeting was to be submitted on Monday, 11 March 1985, the Chairman proposed that the Committee set up a small Working Group under his chairmanship to examine the credentials received by the Secretariat and to submit a report on its conclusions to the Committee.

It was decided that the Working Group should comprise the following delegates in addition to the Chairman and the Vice-Chairman of the Committee : one delegate from the Czechoslovak Socialist Republic, one delegate from the Republic of Malta and one delegate from the Socialist Federal Republic of Yougoslavia. It would be convened at the appropriate time.

The meeting rose at 10.30 hours.

The Secretary :

R. MACHERET

The Chairman :

J.F. PATRICIO

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 47-E
1 March 1985
Original: English

COMMITTEE 5

SUMMARY RECORD

OF THE

FIRST MEETING OF COMMITTEE 5

(PLANNING COMMITTEE)

Tuesday, 26 February 1985, at 0900 hrs

Chairman: Mr. T. BØE (Norway)

Subjects discussed:		Documents
1.	Opening remarks by the Chairman	-
2.	Organization of work	33, 34
3.	Identification and consideration of the main topics needing urgent decision:	
3.1	Needs of countries which have not submitted requirements and are not represented at the Conference	-
3.2	Status of the primary and permitted services (RR 419), and protection of the non-planned services	5, 6, 7, 8, 13 22, 32

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Opening remarks by the Chairman

1.1 The Chairman said he considered his election as Chairman of Committee 5 as an honour to his country and to himself. He looked forward to working with the Committee in the coming three weeks and was confident that, although the time at its disposal was so limited, the Committee would, with the support and assistance of its members, complete the tasks assigned to it.

2. Organization of work (Documents 33, 34)

2.1 The Chairman noted that the terms of reference of the Committee were set out in Document 33 and the list of documents assigned to it were given in Document 35. To start with, there were a number of basic issues that would need to be decided before the Committee could embark on the actual planning process. A decision on those points would need to be reached at the latest by the end of Thursday, 28 February 1985, after which ad hoc groups and planning groups could be set up to deal with the planning process.

3. Identification and consideration of the main topics needing urgent decision

3.1 Needs of countries which have not submitted requirements and are not represented at the Conference

3.1.1 The representative of the IFRB said that the customary practice was for a conference to request the Board to put forward requirements on behalf of those administrations not represented at a conference, which had not submitted any requirements themselves. At the present Conference difficulties might arise with respect to submitting new requirements for such administrations, but the Board would be keeping the situation under close review as the meeting progressed.

In reply to questions from the delegates of Spain and the Netherlands, he said that 30 administrations in Region 1 had not submitted requirements for the maritime mobile service. These administrations accounted for 80 assignments in the IFL in the frequency bands covered by the Conference. In addition, 75 of those existing assignments, to some 50 coast stations, belonged to 18 administrations not represented at the Conference. With regard to the aeronautical radionavigation service, 29 administrations had not submitted frequency requirements for beacons; there were no assignments for those administrations in the IFL. Out of these 25 administrations 25 countries are not represented at the Conference.

3.2 Status of the primary and permitted services (RR 419), and protection of the non-planned services (Documents 5, 6, 7, 8, 13, 22, 32)

3.2.1 The delegate of the German Democratic Republic, introducing Document 5, said that the proposals therein were based on his Administration's view that the frequencies assigned in the bands concerned by the previous conference on the subject should not be changed by the present conference. The German Democratic Republic had only one station in those bands in the maritime mobile service, which required 7 frequencies. That was a minimum requirement and there was scope for further work on the subject. The German Democratic Republic was, however, prepared to comply with the requirements of the planning process and considered the procedure before the Conference an appropriate basis for planning.

3.2.2 The delegate of Spain drew attention firstly to proposal E/6/23 in Document 6, which gave his Administration's views on the complex issue of primary and permitted services, and secondly to the draft Resolution on a relevant frequency transfer procedure in proposal E/6/62 based on the Spanish Administration's interpretation of RR 419.

3.2.3 The delegate of the Netherlands supported the Spanish proposals, which were in agreement with the Netherland's views as expressed in section 4 of Document 7. It would, however, also be necessary to take account during the planning procedure of the fixed service assignments covered by RR 483.

3.2.4 The delegate of Spain concurred with that provision.

3.2.5 The delegates of Sweden, France and Yugoslavia supported the Spanish and Netherlands proposals.

3.2.6 The delegate of France drew attention to the draft Resolution proposed in Document 13 by the French Administration to encourage efforts to transfer coast stations from the 415 - 435 kHz band.

3.2.7 The representative of the IFRB, introducing Document 22, said it contained the Board's views on the status of the primary and permitted service. He drew the Committee's attention to the table at the end of section 3, which listed the services to be protected in the bands covered by the Conference. The Committee should note that the Conference's authority was limited to the planning of certain services and that it had no mandate to transfer frequencies already assigned to permitted services in the Master Frequency Register.

3.2.8 The delegate of Finland, supported by the delegate of Denmark, asked whether the provisions of RR 425 had any relevance for the work of the Conference and if so how it should be applied within the planning process.

3.2.9 The delegate of Denmark noted in addition that the purpose in planning the MHz bands covered by the Conference was to provide better frequency arrangements for all the stations concerned, especially those in the maritime mobile service. However, the IFL contained a considerable number of fixed service assignments in those bands which were covered by RR 483; it would therefore be necessary for the Committee to consider in more detail how the planning process should be tackled to afford the services covered by RR 483 appropriate protection and discuss what degree of protection that implied.

3.2.10 The delegate of Sweden said that, notwithstanding the fact that the IFRB considered the Conference was not authorized to alter frequency assignments in the permitted services, it was important that the Conference had the freedom in its planning procedures to disregard existing stations in the permitted services. Once the plan had been completed the status of stations in the permitted services could be evaluated and frequencies changed where necessary to avoid incompatibilities. Failure to proceed in that way would imply that the permitted services had priority over the primary service.

3.2.11 The representative of the IFRB said that preparation of a plan without any reference to existing stations in the permitted services would lead to unfavourable findings when the Board came to examine notices of frequency assignments.

3.2.12 The delegate of Denmark supported the delegate of Sweden. However, the Conference might perhaps consider giving some degree of protection to a permitted service as a service, rather than as a given frequency assignment, in order to enable that service to continue to operate.

3.2.13 The delegate of Sweden proposed, in view of the large measure of agreement shown in discussion, that the Committee should consider adopting the text of the draft Resolution proposed by Spain, expanded to take account of the further points raised in the debate. That would provide a vehicle for administrations with stations in the permitted services to amend those assignments if necessary to make them compatible with the plan. That should meet the difficulty mentioned by the IFRB.

3.2.14 The delegate of the USSR opposed that proposal. His Administration's views on the matter were set out in the introduction to Document 8. A frequency plan drawn up with exclusive reference to the primary service could cause great difficulties to existing frequency assignments in the permitted services. The Committee's attention was drawn in that context to proposal URS/8/1 for maintaining certain frequencies assigned by the Copenhagen Plan to coast stations in the maritime mobile service and appearing in the International Frequency Register.

3.2.15 The observer of the International Transport Workers' Federation expressed his support for proposal URS/8/4 for retention of the frequency 425 kHz as a ship station frequency, since such ship stations were not confined to movement within Region 1. That proposal was necessary in the interests of the safety of shipping.

3.2.16 The delegate of Sweden said that in the 415 - 435 kHz band a very large number of frequency requirements had been submitted to the Conference for assignment to the aeronautical radionavigation service (the primary service in the band). It would be very unfortunate if the Conference were to be denied the opportunity to prepare the best possible plan for that primary service because its freedom had been restricted by the need to afford protection to the frequencies assigned by the Copenhagen Plan to coast stations in the maritime mobile service. He therefore appealed to the USSR delegation to reconsider its position on the matter.

3.2.17 The delegate of the USSR said that since the inception of the Copenhagen Plan technical advances had made it possible for administrations to use the spaces between the frequencies assigned in that Plan. His Administration had recently carried out a review of the situation with regard to interference caused to its aeronautical radionavigation and maritime mobile services with frequency assignments in the 435 - 495 kHz band and had found that 80% of the available frequencies in that band were being used by other services, with or without official recognition by the IFRB. That situation was causing considerable concern to his Administration since if, as implied by the Spanish draft Resolution, its coast stations were to lose their existing frequencies in that band, contact would be unable to be maintained with its shipping. His Administration was therefore unable to comply with the Swedish request to withdraw its opposition to the Spanish draft Resolution.

3.2.18 The delegate of Finland said that the Committee should not lose sight of the fact that the Conference was faced with two fundamentally different situations in the two sets of frequency bands for which it had to prepare plans. In the 500 kHz bands the Conference was responsible for the planning of all the allocations concerned, whether

they belonged to the primary or to the permitted services. In the 2 MHz bands, on the other hand, only the planning of the primary service came under the mandate of the Conference, which was therefore obliged to afford appropriate protection to the frequencies assigned to other services in the bands concerned.

The meeting rose at 1040 hours.

The Secretary: G. KOVACS

The Chairman: T. BØE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 48-E
27 February 1985
Original: English

COMMITTEE 4

NOTE FROM THE CHAIRMAN OF COMMITTEE 6

TO THE CHAIRMAN OF COMMITTEE 4

During its second meeting on 27 February 1985, Committee 6 asked me to request Committee 4 to indicate the technical criteria which will have to be used in the examination of future modifications to the Plans, i.e.

1) limits not to be exceeded vis-à-vis assignments appearing in the Plan,

2) sharing criteria between assignments in the Plan and assignments to stations of non-planned (permitted) services.

I would appreciate Committee 4 communicating this information to Committee 6 as early as possible.

S. CHALLO
Chairman of Committee 6

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REGION 1

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GENEVA, FEBRUARY/MARCH 1985

Document 49-E
27 February 1985
Original : English

COMMITTEE 2

First Report by Working Group C2-A to Committee 2

1. The Working Group of Committee 2 (Credentials) met on 27 February 1985. It examined the credentials of the following delegations *:

GERMANY (Federal Republic of)
SAUDI ARABIA (Kingdom of)
BULGARIA (People's Republic of)
CAMEROON (Republic of)
DENMARK
EGYPT (Arab Republic of)
SPAIN
FINLAND
ITALY
MADAGASCAR (Democratic Republic of)
MALTA (Republic of)
MONACO
NORWAY
NETHERLANDS (Kingdom of the)
PORTUGAL
QATAR (State of)
UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
SWEDEN
SWITZERLAND (Confederation of)
CZECHOSLOVAK SOCIALIST REPUBLIC
TURKEY
YUGOSLAVIA (Socialist Federal Republic of)

These credentials are all in order.

2. The Working Group noted that some delegations present at the Conference have not yet deposited their credentials. These delegations will be contacted by the Committee Secretariat.

J.F. PATRICIO
Chairman of the Working Group C2-A

*In the alphabetical order of the french version of the country names.

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 50-E
4 March 1985

LIST OF DOCUMENTS

(1 - 50)

PL = Plenary
C = Committee
WG = Working Group

No.	Origin	Title	Destination
1	SG	Agenda of the Conference	PL
2	SG	Credentials of Delegations	C.2
3	SG	Report by the CCIR to the Conference	C.4, C.5
4	GRC	Proposals	C.5, C.6
5	DDR	Proposals	C.5, C.6
6+Corr.1,2,3 + Add.1 +Corr.1/Add.1	E	Proposals	C.4, C.5, C.6
7	HOL	Proposals	C.5, C.6
8	URS	Proposals	C.4, C.5, C.6
9(Rev.1)	G	Regional Agreement for Region 1	C.5, C.6
10	G	Proposals - Recommendation G-A relating to the Termination of the Use of the Worldwide Maritime Mobile Working Frequency 425 kHz by Ship Stations	C.6
11	F	Transmitter power and planning criteria for the Maritime Mobile Service in the Band 1 606.5 - 2 160 kHz	C.5
12	F	Individual cases of frequency assignment to coast stations	C.5
13	F	Arrangements required to avoid harmful interference to the Aeronautical Radionavigation Service by emissions of the Maritime Mobile Service in the Band 415 - 435 kHz	C.5, C.6
14 + Add.1, 2	SG	Report by the IFRB to the Conference	C.5

ARCHIVES U.I.T. GENÈVE

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No.	Origin	Title	Destination
15 + Add.1	NOR, S	Proposals	C.4, C.5, C.6
16	F	Modification of the provisions of the Radio Regulations (Chapter XI, Article 60, Nos. 4358 to 4364)	C.6
17 + Corr.1	F	Date of entry into force of the Final Acts of the Conference	C.6
18	SG	Final Acts of the Conferences	C.3
19	SG	Budget of the Conference	C.3
20	SG	Financial responsabilities of administrative conferences	C.3
21	F	Planning criteria	C.4, C.5
22	SG	Note by the IFRB on the status of the primary and permitted services in connection with planning and notifications	C.5, C.6
23	S	Proposals	C.4, C.5
24	S	Proposals	C.5
25	SG	Contributions of recognized private operating agencies and non-exempt international organizations	C.3
26	SG	Report by the IFRB to the Conference in accordance with Resolution No. 38 of the WARC-79	C.5
27	SG	Some considerations by the United States of America	-
28	SG	Participation requests submitted by international organizations	PL
29(Rev.1)	SG	Loss of the right to vote	-
30	SG	Invitations	-

No.	Origin	Title	Destination
31	SG	Software for RARC-MM-R1 and RARC-EMA	-
32	YUG	Proposals	C.5, C.6
33	SG	Structure of the Conference	-
34	SG	Allocation of documents	-
35	SG	Information paper - General schedule of the work of the Conference	-
36	S	Reductions in requirements and present assignments	C.5
37	PL	Conference chairmanship	-
38	SG	Secretariat of the Conference	-
39	PL	Minutes of the 1st Plenary Meeting	PL
40	C.6	Summary Record of the 1st meeting of Committee 6	C.6
41	D	Proposals	C.4
42	E	Antenna efficiency	C.4
43	KEN	Proposals	C.5
44	F	Radiated power in coast stations	C.4
45	C.4	Summary Record of the 1st meeting of Committee 4	C.4
46	C.2	Summary Record of the 1st meeting of Committee 2	C.2
47	C.5	Summary Record of the 1st meeting of Committee 5	C.5
48	C.6	Note from the Chairman of Committee 6 to the Chairman of Committee 4	C.4
49	WG/2A	First Report of Working Group 2A to Committee 2	C.2
50	SG	List of documents	-

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

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1 March 1985
Original: English

COMMITTEE 5

SUMMARY RECORD

OF THE

SECOND MEETING OF COMMITTEE 5

(PLANNING COMMITTEE)

Tuesday, 26 February 1985, at 1400 hrs

Chairman: Mr. T. BØE (Norway)

Subjects discussed:		Documents
1.	Identification and consideration of the main topics needing urgent decision	
1.1	Status of the primary and permitted services (RR 419) and protection of the non-planned services	5, 6, 7, 8, 13, 15 + Add.1, 22, 32
1.2	Planning method (satisfaction of requirements, planning method offered by the Swedish Administration, form of presentation of results)	4, 6, 7, 8, 15 + Add.1, 24, 31, 32
1.3	Designation of frequencies used for different communication modes (A1A - F1B, blocked frequencies)	12
1.4	Consideration of power-service range limitations	11

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1. Identification and consideration of the main topics needing urgent decision

1.1 Status of the primary and permitted services (RR 419) and protection of the non-planned services (Documents 5, 6, 7, 8, 13, 15 + Add.1, 22, 32) (continued)

1.1.1 The Chairman said that a compromise text on the status of primary and permitted services had been prepared in the interval between the first and second meetings. The text read as follows:

> "In principle, the permitted service should not be taken into account during the planning process. However, in the band 415 to 435 kHz the problems seem to be limited and can be solved case by case during the planning process and in the 2 MHz band only the primary services are to be planned, taking into account the assignments pertaining to the services contained in RR 483. The situation before and especially after the Conference should be considered, if required, later in the Conference during the planning process.".

1.1.2 The delegate of the USSR said that the text certainly clarified the situation, but pointed out that it would be anomalous to single out the band 415 to 435 kHz, since the reverse situation obtained in the band 505 to 526.5 kHz, where the maritime mobile service was the primary service and the fixed and land mobile services were permitted. He therefore proposed that the compromise text should refer to both those bands. The delegate of the Netherlands supported that proposal.

1.1.3 In reply to a question asked by the delegate of Finland at the previous meeting, the representative of the IFRB said that, in accordance with RR 425, assignments in the different category of service referred to in RR 483 had to be protected within the borders of the countries concerned. That was the view of some members of the IFRB, although the Board as a whole had not been consulted on the matter.

1.1.4 The delegate of the Federal Republic of Germany said that his Administration's interpretation of the situation was somewhat different. The IFRB's view would place a heavy burden on neighbouring countries which would have to protect the services of the countries listed in RR 483.

1.1.5 The delegate of the Netherlands said that, if the IFRB's interpretation was accepted, the relevant phrasing concerning RR 483 in the compromise text should be more specific, for instance, indicating the exact bands in question and stating that the assignments were recorded in the Master Register with favourable or unfavourable Findings.

1.1.6 The representative of the IFRB said that at the present time all the assignments in the 2 MHz band to the different category of service, i.e., the fixed and land mobile services which were primary services for the countries listed in RR 483, had received favourable Findings.

1.1.7 The Chairman pointed out that the compromise text had been put forward as a basis for the IFRB to work on during the planning process. An early decision must be reached on that very general text, although the problems involved would probably arise again at later stages of the Conference.

1.1.8 The delegate of the Netherlands said that his Administration could support the compromise text on the understanding that, in the event of difficulties in adopting an acceptable Plan, the other avenues to be explored should include a search among the existing assignments to the countries listed in RR 483.

1.1.9 The delegate of Denmark said he agreed with the interpretation of RR 425 according to which the assignments of the countries listed in RR 483 should not be given full protection under the Plan. Indeed, those stations did not currently enjoy day and night protection and were accustomed to a certain degree of interference.

1.1.10 The delegate of the Federal Republic of Germany also reserved his Administration's right to revert to the question at a later stage. In accordance with the IFRB's interpretation, if a country mentioned in RR 483 had maritime mobile service requirements which must be met as well as fixed and land mobile services which needed full protection, the neighbouring countries would be left with no assignments at all.

1.1.11 The representative of the IFRB said that his explanation of the IFRB's interpretation had perhaps been misleading. In the 2 MHz band, where the fixed and land mobile services were permitted under the Frequency Allocation Table, they were primary services within the frontiers of the countries listed in RR 483. Although the maritime mobile service was not mentioned in the footnote 1, it was also a primary service for those countries. He would confirm that interpretation later on behalf of the Board as a whole.

1.1.12 The delegates of the United Kingdom, Spain and France said that they too could accept the compromise text on the understanding that some of the questions that had been raised could be reopened at a later stage.

1.1.13 The delegate of Finland associated his Administration with those statements and said that it would particularly welcome a further explanation of the first sentence of the compromise text, which could be construed to mean that no effort would be made to plan for permitted services even in the bands where the Conference was empowered to do so by its agenda, although there was reason to believe that there would ultimately be room for such services in parts of the planning area.

With those reservations, the text read out by the Chairman was approved as amended.[1]

1.2 Planning method (satisfaction of requirements, planning method offered by the Swedish Administration, form of presentation of the results)
(Documents 4, 6, 7, 8, 15 + Add.1, 24, 31, 32)

1.2.1 The Chairman, observing that the Committee had practically no option but to accept the method proposed by the Swedish Administration, invited delegations to introduce their proposals.

1.2.2 The delegates of Greece and the USSR said they had no comments to make on the proposals in Documents 4 and 8, respectively.

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1 Subsequently issued in Document DT/5.

1.2.3 The delegate of Spain said that his Administration's proposals in Document 6 were based on a few very simple criteria: that all coast stations should have at least one assignment in each service; that those initial assignments should be given day and night protection in the planning process; that requirements should be covered as far as possible by the available channels and the requirements which could not be met should appear in an appendix to the Plan listing the unsatisfied requirements which could cause harmful interference to other assignments.

1.2.4 The delegate of the Netherlands, referring to Document 7, drew special attention to proposal HOL/7/12, where mention was made of the replacement frequencies that had to be found for stations in the maritime mobile service in pursuance of Resolution No. 38 of WARC-79.

1.2.5 The delegate of Sweden explained the planning method offered by his Administration in Document 24.

1.2.6 The delegate of Norway said that his delegation supported the planning method offered by the Swedish Administration (Document 24), which coincided with the planning principles proposed on page 8 of Document 15 submitted by Norway and Sweden.

1.2.7 The representative of the IFRB, introducing Document 31, said that the Board had incorporated the Swedish planning method into an overall system on the Siemens computer of the ITU comprising three elements - a data capture program developed by the IFRB, the Swedish planning program and an incompatibility analysis program also developed by the Board. The IFRB had, moreover, developed interfaces between those three elements. He drew special attention to the last sentence of paragraph 5.1, pointing out the great difficulties of making any significant changes in the planning program during the Conference, although changes in the values of parameters could be accommodated. With regard to the results of the incompatibility analysis program, the Board had assumed that the Conference would wish to provide protection for the services already recorded in the Master Register and had listed various possible presentations; some of those could of course be deleted if the Committee so decided. The incompatibility analysis program had been based on the IFRB Technical Standards currently in force; although the examination of incompatibilities would be analogous to IFRB Rules of Procedures, it should be borne in mind that the Findings of the Board were not open for discussion by the Conference.

1.2.8 The delegate of Yugoslavia, introducing Document 32, said he wished to lay particular stress on proposals YUG/32/5, YUG/32/6 and YUG/32/9.

1.2.9 Reverting to Document 24, the Chairman reminded the Committee that he had asked it to come to a decision. He pointed out that the computer program therein was the only one available and that time constraints would make it difficult to devise another during the course of the Conference.

1.2.10 The delegate of Denmark said that the Swedish program had proved useful in test planning carried out in his country and he therefore supported the adoption of Document 24. However, it was still necessary for the Committee to agree on the principles of planning and the order of priorities.

1.2.11 The delegates of Spain, the Netherlands, France, the United Kingdom, and the Federal Republic of Germany all expressed support for the Swedish program, while asking for clarification on its implementation and optimization, and the possibility of adopting a step by step approach.

1.2.12 In response, the delegate of Sweden said that all three basic parameters - protection ratio, selectivity curves and propagation curves - could be easily changed if the Committee so decided. Nor did the adoption of a step by step approach as suggested by the delegate of the Netherlands pose any problem. However, the assignment of frequencies could raise difficulties for instance if there were two stations, with fixed frequencies, sharing the same frequency, in which case there was no alternative but to assign that frequency to one of those stations.

1.2.13 After further discussion on the technical features and methods of implementation of the Swedish program, in which the delegates of Denmark, France, Finland, the Netherlands and Spain took part, it was agreed to resume consideration of the outstanding issues at the following meeting of the Committee.

1.3 Designation of frequencies used for different communication modes (A1A - F1B, blocked frequencies) (Document 12)

1.3.1 The delegate of France pointed out that Document 12 was also listed incorrectly against another item of the agenda and that mistake should be corrected.

The main aim sought by the French Administration was to avoid costly operations required by changes in frequency when implementing any new frequency assignment plan. In the current economic situation, no economy was too small.

1.4 Consideration of power-service range limitations (Document 11)

1.4.1 The delegate of France, introducing Document 11, said that as it dealt mainly with a technical issue it might be passed on to Committee 4, except for the conclusions which should be considered by Committee 5.

It was so agreed.

The meeting rose at 1700 hours.

The Secretary: G. KOVACS

The Chairman: T. BØE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 52-E
27 February 1985
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COMMITTEE 5

REPORT BY THE CHAIRMAN OF AD HOC GROUP 5-1
TO COMMITTEE 5

1. Committee 5 set up ad hoc Group 5-1 with the following terms of reference:

On the basis of the contributions of administrations to the Conference and the discussions in Committee 5,

- to consider the order of meeting the requirements throughout the planning process, and

- to determine how and under which conditions to use the planning program described in Document 24.

The conditions should not be such as to jeopardize the planning process. (Technical criteria used in the program are not to be considered.)

The following proposals have been agreed upon in the Group.

2. Order of meeting the requirements in the planning process

2.1 Bands contained in Appendix 1 of Resolution 704 (MOB-83)

2.1.1 The order of priority for the first planning exercise should be as follows:

1) one channel (two-paired frequencies) per coast station, day and night-time protection (sky wave);

2) additional channels with day time protection only to coast stations having or expecting high traffic;

3) additional requirements to be satisfied only with reduced service range or reduced protection, as necessary.

2.1.2 If the results of the first planning exercise with the conditions mentioned above are not satisfactory, another planning exercise should be carried out under the following conditions:

1) one channel (two-paired frequency) per coast station, day time protection only (ground-wave);

2) additional channels as in paragraphs 2) and 3) of point 2.1.1.

2.1.3 The Group did not take any decision on whether the planning exercise should be carried out for A1A and F1B emissions separately. This decision is to be taken by Committee 5.

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2.2 Bands contained in Appendix 2 of Resolution 704 (MOB-83)

2.2.1 During the planning process, the following order of priority should be observed:

1) replacement requirements for the purpose of Resolution 38 (WARC-79) and replacement requirements for frequencies currently used within the bands to be planned by the Conference, without improving conditions such as replacing a common frequency for several stations by assigning a number of different frequencies.

2) New requirements

The Spanish delegation reserved the right to revert to this subject at the committee or Plenary level.

2.2.2 No night-time protection should be afforded during the planning process, and no special treatment should be given to frequencies to be used for public correspondence.

Some delegations expressed reservations on this issue.

2.3 Consideration was given to Document 12 (F/12/1, F/12/2 and F/12/3) on retaining existing frequencies when planning. The ad hoc Group could not go along with this proposal. The French delegation reserved the right to come back to that issue at a later stage.

3. Number of frequencies to be planned on radiotelephony

Although in Resolution 704, Appendix 2, the number of available ship station frequencies is less than those for coast stations, it is proposed to plan all the 55 coast station frequencies. Pairing arrangements with ship station frequencies should be made as described in Document NOR/S/15/13 reusing ship station frequencies on the understanding that adjacent coast station channels will not be assigned to geographically adjacent coast stations. When interference occurs on the ship station frequencies, administrations could use frequencies outside the bands mentioned in Appendix 2 of Resolution 704 [on the basis of agreement obtained from other administrations concerned].

4. Guidelines for use of the computer program

The mentioned proposals should be used as guidelines for the use of the computer program. No additional guidelines could be established during the limited time available.

K.B. MALINA
Chairman of ad hoc Group 5-1

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 53-E
27 February 1985
Original: English

COMMITTEE 6

WORKING GROUPS SET UP BY COMMITTEE 6

Working Group 6A - Chairman: Mr. M. MENCHEN (Spain)

Terms of reference:

To establish procedures intended for future modifications to the Plans and permitting a compatible development of the other services to which the bands are allocated and for the notification of frequency assignments.

Working Group 6B - Chairman: Mr. M.J. BATES (United Kingdom)

Terms of reference:

1) To establish an agreement in the following frequency bands in Region 1:

- for the maritime mobile service:

  415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz

- for the aeronautical radionavigation service:

  415 - 435 kHz and 505 - 526.5 kHz

(with the exception of the articles dealing with procedures for modification and notification).

2) To establish the final texts of Appendices to the Radio Regulations containing the channelling arrangements in Appendices 1 and 2 to Resolution No. 704 of the WARC for the Mobile Services, Geneva 1983 in the bands referred to above with the view to their later inclusion in the Radio Regulations.

S. CHALLO
Chairman of Committee 6

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 54-E
1 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

SECOND MEETING OF COMMITTEE 4

(TECHNICAL)

Tuesday, 26 February 1985, at 1400 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:	Documents
1. Consideration of technical parameters necessary for the establishment of frequency assignment plans in Region 1:	-
For the maritime mobile service (415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz)	3, 6 + Corr.1 + Corr.2 + Add.1, 8, 15 + Add.1, 21, DT/4
For the aeronautical radionavigation service (415 - 435 kHz, 505 - 526.5 kHz)	3, 8, 15 + Add.1, 21, DT/4

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Consideration of technical parameters necessary for the establishment of frequency assignment plans in Region 1:

For the maritime mobile service (415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz)

1.1 The Chairman resumed consideration of Document DT/4 (Maritime mobile service, band around 500 kHz) and called for further views on the protection ratio for frequency offset.

1.2 The delegate of the Netherlands, supported by the delegate of Denmark, pointed out that since under the SOLAS Convention a number of ships had be to equipped with radio telegraphy transmitters which could also be used for NBDP, the use of Morse telegraphy would decrease when such equipment became available. Moreover, in the new Plan, there were now 57 coast and ship station frequencies using NBDP.

1.3 The observer of the International Transport Workers' Federation (ITF) said that his Federation's radio officer members would prefer the Spanish proposal to the joint Norwegian/Swedish one. It was true that with modern A1A equipment radio officers could distinguish between narrowly separated required and interfering signals through a slight difference in the transmitted frequency. Protection was essential since A1A Morse code would probably be used well into the next century.

1.4 The delegates of Greece, Kenya, Portugal, Bulgaria and the German Democratic Republic supported the Spanish proposal.

1.5 The delegates of the Federal Republic of Germany, the United Kingdom and Finland supported the Norwegian/Swedish proposal.

1.6 The Chairman suggested that since the views of the Committee were almost equally divided, perhaps a more stringent value for Morse telegraphy should be selected instead of the -4 dB proposed. After an exchange of views, he further suggested that it might be possible to establish a plan with conservative figures and a modification procedure providing for more stringent values to come into force at some subsequent date.

1.7 The Chairman of the IFRB, referring to the table on page 17 of Document 31, said that the frequency offset program developed took account not only of the selectivity of the receiver but the bandwidth of the interfering emission as well. There was no question of assuming one value for the two types of modulation. The Swedish program could be used to develop the plan and the final analysis could be carried out using the IFRB technique. However, that approach would have to be endorsed by the Planning Committee.

1.8 The delegate of the United Kingdom said that a possible solution might be to divide the services into different sub-bands for Morse and for data, the number of sub-bands to be decided by Committee 5.

1.9 The Chairman asked whether the Committee could agree to a figure of -4 dB for Morse telegraphy with a recommendation calling for the establishment of different sub-bands.

1.10 Following discussion between the delegates of Sweden and of Spain and the Chairman of the IFRB, the Chairman said he would consult the Chairman of Committee 5 on the feasibility of selecting different sub-bands for different modes of operation.

1.11 The Chairman having put forward another compromise, i.e. to select more stringent values for adjacent channel protection for A1A Morse telegraphy, and asked whether the supporters of the Norwegian/Swedish proposal could accept such a procedure, it was agreed to give the matter more thought and return to it later.

The Committee adopted the figures of -38 dB for 0.5 kHz and -62 for 1 kHz, if the wanted signal is F1B.

1.12 The Chairman said that he took it that the Committee could adopt the figure of 500 Hz for channel spacing.

It was so agreed.

1.13 The Chairman then invited the Committee to consider the table for the band around 2 MHz.

1.14 The values in Document DT/4 for propagation (ground-wave according to CCIR Recommendation 368) were adopted.

1.15 The values of 20 and 8 dB for J3E and F1B co-channel protection ratio respectively were also adopted.

1.16 For the protection ratio for J3E for frequency offset, the Committee adopted the value of -25 dB for the adjacent channel.

1.17 After some discussion, it was agreed to adopt a value of -50 dB for 6 kHz separation rather than the -60 dB in the Norwegian/Swedish proposal.

1.18 The Committee adopted the values of 500 Hz and 3 kHz channel spacing for F1B and J3E respectively.

1.19 The Chairman noted that the proposals covered in sections 1.1 and 1.2 of Document DT/4 had all been dealt with, apart from a few points left in abeyance.

1.20 The delegate of the USSR said that he need make no additional comment in introducing the proposals in Document 8 since the technical issues had been well covered. He would return at a later stage to the subject of the power of stations for safety communications.

1.21 The delegate of Spain having raised a question about the powers referred to in the Soviet document, the Chairman wondered whether it would not be advisable for the Committee to express its view on how the powers indicated in the plan should be expressed.

1.22 The Chairman of the IFRB pointed out that in Appendix 1 to the Radio Regulations, which governed the notification of assignments, power was defined as that supplied to the antenna. The data supplied to the IFRB in response to the circular-letter for the current Conference also referred to power in the same terms.

1.23 The Chairman noted that it would be very difficult to make the necessary calculations of field strength when the efficiency of the antenna was unknown.

1.24 The delegate of the United Kingdom shared the Chairman's views and stated his preference for power expressed in terms of the e.m.r.p. Either the notices should be completed in those terms, or the antenna efficiency must be specified as well as the transmitter input power.

1.25 The Chairman of the IFRB said that it was, of course, the Conference's prerogative to decide in favour of the e.m.r.p. but in that case it should also provide guidance to administrations by including in the Final Acts a means of developing the e.m.r.p. from the transmitter power.

1.26 The Chairman said that he would see that that was done if necessary and that he was confident that the Conference would find a solution to meet the IFRB's objections.

It was finally agreed to resume discussions on the matter the following day.

1.27 The delegate of the Federal Republic of Germany wondered whether the Committee should not also express a view on the possible application of directional antennas in the maritime field. He was not proposing that it should be included in the planning exercise, but it could provide a solution to certain problems in the subsequent case by case negotiations. His delegation was prepared to issue a contribution containing additional information.

1.28 The delegates of Greece and Spain requested more time to think about the matter before making a formal recommendation on the part of the Committee.

It was so agreed.

For the aeronautical radionavigation service (415 - 435 kHz, 505 - 526.5 kHz)

1.29 The Chairman referred the Committee to section 2 of Document DT/4.

He invited the Committee to consider the propagation parameter. Since no mixed path calculations were possible, he suggested that the Committee might agree to restrict calculations to those over land paths, with the values indicated by Sweden.

It was so decided.

1.30 He also suggested that the Swedish proposal in Document 24 be followed, namely to use the 400 kHz curve for the lower part of the band, and the 500 kHz curve for the upper part.

It was so agreed.

1.31 With respect to sky-wave propagation, the Chairman drew attention to Nos. 2854 and 2856 of the Radio Regulations which specified a minimum usable field strength for daylight coverage only for the 415 - 435 kHz band.

Following interventions by the delegates of Sweden and France, it was agreed not to take sky-wave propagation into account at all.

1.32 The Chairman pointed out, with reference to the minimum usable field strength, that values were laid down in the Radio Regulations for the lower sub-band and he suggested that the same values be applied to the upper part of the band.

It was so agreed.

1.33 Similarly, for the co-channel protection ratio, he suggested that the figure of 15 dB specified in the Radio Regulations be applied to the lower as well as the upper part of the band.

It was so agreed.

1.34 Turning to the protection ratio for the frequency offset case, the Chairman observed that the Norwegian/Swedish proposal was in agreement with the CCIR Report. The values given in terms of receiver selectivity in the CCIR Report could easily be converted to those in the Norwegian/Swedish document and he therefore took it that the Committee could adopt the figures in the Swedish document, since they were more complete.

It was so agreed.

1.35 The Committee adopted 1 kHz channel spacing.

1.36 The Chairman said, with reference to transmitter power, that he took it that the reference to e.r.p. in the Swedish document should be replaced by e.m.r.p.

1.37 The delegate of Sweden confirmed that understanding. However the powers were measured, they should be adjusted so that the field strength was consistent with the values indicated in RR 2855 and 2857.

1.38 The Chairman noted that the Committee had completed its work on the radio-navigation parameters, as contained in Document DT/4.

The meeting rose at 1700 hours.

The Secretary: O. VILLANYI

The Chairman: E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 55-E
4 March 1985
Original: English

COMMITTEE 5

SUMMARY RECORD

OF THE

THIRD MEETING OF COMMITTEE 5

(PLANNING COMMITTEE)

Wednesday, 27 February 1985, at 0900 hrs

Chairman: Mr. T. BØE (Norway)

Subjects discussed:		Documents
1.	Planning method (continued)	4, 6, 7, 8, 11, 12, 15 + Add.1, 24, 31
2.	Incompatibility analysis program offered by the IFRB	31
3.	Consideration of the requirements submitted by the administrations	14 + Add.1
4.	Reduction of requirements and present assignments	36
5.	Consideration of power-service range	-
6.	Actions required by Resolution No. 38	26
7.	Any other business	DT/5

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1. Planning method (continued) (Documents 4, 6, 7, 8, 11, 12, 15 + Add.1, 24, 31)

1.1 The Chairman, summing up the discussion at the previous meeting, said that the Committee had agreed to adopt the program described in Document 24 and had gone on to consider the conditions under which it should be used. Concerning the meeting of requirements, after discussion, the delegate of Denmark had formally proposed that the method described in Document 15 should be applied in the bands around 500 kHz and that the method proposed by the Netherlands in Document 7 should be used in the bands around 2 MHz. After a further brief exchange of views, the Committee might wish to establish an ad hoc Group to consider the matter and report back to the Committee's next meeting.

1.2 The delegates of the Federal Republic of Germany and Italy supported the proposal made by Denmark.

1.3 The delegate of Norway agreed with the view expressed by the delegate of Spain at the previous meeting that the frequencies in Resolution No. 38 should not be included among the high-priority replacements. He would prefer the method described in Document 15 to be applied to the bands around 2 MHz as well.

1.4 The delegate of France drew attention to Document 12 submitted by his Administration and stressed the importance of avoiding the additional costs inevitably arising from frequency replacements, especially so soon after the changeover to single-side bands. In reply to a question by the delegate of the Federal Republic of Germany, he said that the financial savings referred to in the document applied to coast stations as well as ship stations.

1.5 The Chairman suggested that an ad hoc Group be set up with the terms of reference as follows:

> "On the basis of the contributions to the Conference and the discussions in Committee 5, to consider the order of meeting the requirements throughout the planning process and to determine how and under which conditions to use the data program described in Document 24. (The technical criteria used in the program are not to be considered)."

1.6 The delegate of the United Kingdom said that the ad hoc Group should be expressly warned against introducing too many constraints. To do so might seriously jeopardize the success of the planning exercise.

1.7 The Chairman, said that the terms of reference would be amended accordingly.

After discussion, it was agreed to set up an ad hoc Group with the following membership: Denmark, United Kingdom, Sweden, Ireland, Finland, Italy, Netherlands, France, Belgium, Morocco, Spain, Federal Republic of Germany, Kenya and Tunisia, Mr. Malina of the Federal Republic of Germany acting as Chairman.

1.8 The delegate of Spain, referring to the question of the number of telephone channels to be planned in the band around 2 MHz, drew attention to the proposal put forward on that subject by his Administration (Document 6, page 14, E/6/53).

1.9 The delegate of the Netherlands drew attention to the solution proposed by his Administration in section 2.5 of Document 7.

1.10 The delegate of the United Kingdom said that he preferred the Netherlands' solution, since taking 23 channels from the bands in Appendix 3 to Resolution 704 was likely to give rise to difficulties.

1.11 The delegate of Denmark put forward a third possibility, namely, that ship station frequencies should be reused more often than coast station frequencies.

1.12 The delegates of the Federal Republic of Germany, Italy and France supported that suggestion.

2. Incompatibility analysis program offered by the IFRB (Document 31)

2.1 At the suggestion of the delegate of Denmark, it was agreed to accept the IFRB's offer of the incompatibility analysis program described in Document 31.

3. Consideration of the requirements submitted by the administrations (Documents 14 + Add.1)

3.1 The Committee Secretary introduced Documents 14 and Addendum 1.

3.2 The representative of the IFRB, replying to a point raised by the delegate of Spain, said that the Board had received requirements from a number of administrations for assignments in the R3E class of transmission. Although under the Final Acts of the WARC-MOB 1983 the Conference was empowered to use only the J3E class, the Board was submitting those requirements in the form in which they had been received.

3.3 The delegate of Italy announced that his Administration had in the meantime withdrawn its requirements in the R3E transmission class.

The Committee took note of Document 14 and Addendum 1, subject to the correction of minor errors.

4. Reduction of requirements and present assignments (Document 36)

4.1 The delegate of Sweden introduced Document 36, which contained a number of suggestions for reducing the pressure of requirements in the bands to be planned.

Bandwidth

4.2 The delegate of Finland, supported by the delegate of the Netherlands, said the very high bandwidths (850 and in particular 2 040 Hz) proposed for aeronautical radiobeacons would place a considerable constraint on planning; a narrower bandwidth would enable more effective use to be made of the frequency spectrum available.

4.3 The delegate of the United Kingdom noted that in fact the bandwidths proposed in the document should be slightly higher to allow for tolerance on the modulating frequency.

With regard to the fact that ICAO recommended two standard modulations for radiobeacons (400 and 1 020 Hz) either of which could be selected by administrations, he suggested, supported by the delegate of Denmark, that it would be helpful if the Conference could urge as many administrations as possible to use the lower modulation only.

4.4 The representative of ICAO noted that under conditions of high atmospheric noise, the higher modulation gave a more readable signal.

4.5 The delegate of France, supported by the delegate of Portugal, said that the existing equipment on board aircraft was designed to select both frequencies. Since that situation would continue for the foreseeable life of such equipment in very large numbers of aircraft, there was little the Conference could do to promote selection of a single frequency, especially as the higher modulation was also in use in other regions.

4.6 The delegate of the United Kingdom said that a reduction in the bandwidth for radionavigation beacons would not cause incompatibilities between assignments in the aeronautical services since in such cases the sideband power need not be taken into account. However, reducing the bandwidth might cause incompatibilities between the aeronautical radionavigation service and permitted services.

4.7 The delegate of France shared those views. In addition, it should not be forgotten that a great deal of receiving equipment on board aircraft had a very wide selectivity. That was already causing difficulties for aircraft in some areas of Europe where several beacons could be received simultaneously. Very little could be done on the matter until on-board equipment changed, which would not be the case for some considerable time.

The Committee took note of the proposals made in Document 36 with regard to bandwidth and of the various points raised in discussion, it being understood that if any change in the bandwidths was to be contemplated Committee 4 would have to consider the matter first.

Range

4.8 After a lengthy exchange of views between the delegates of the Netherlands, Spain, Italy, France, Denmark and Sweden and the representative of the IFRB, the Chairman said that the tenor of the discussion appeared to indicate support for a maximum range of 400 km in the 2 MHz band (radiotelephony) and a maximum range of 500 - 600 km in the 500 kHz band (radiotelegraphy), larger ranges being permitted only in exceptional cases.

4.9 Following a number of reservations expressed as to the feasibility of an acceptable definition of exceptional cases, the delegate of Spain, supported by the delegate of Norway, proposed that planning should first be carried out with reference only to the maximum ranges mentioned by the Chairman. Once that planning process had been completed, exceptional cases could then be considered, perhaps on the basis of bilateral agreement between the parties concerned.

4.10 The delegate of the Netherlands, supported by the delegates of Kenya and France, said that while the procedure proposed by Spain was acceptable, he was unable to agree to a maximum range of 400 km in the 2 MHz band; the figure should be 500 km.

4.11 The delegate of Sweden was strongly opposed to that proposal.

4.12 The delegate of the Netherlands proposed that a final decision on the matter should be postponed until the ad hoc Group that was to meet that afternoon had completed its discussions.

It was so agreed.

Night-time protection

4.13 The delegate of the Netherlands said that planning for ground-wave propagation only would give adequate protection with regard to time sharing.

4.14 The delegate of France said the long twilights characteristic of the northern parts of Region 1 would make the accurate definition of daylight hours a matter of some difficulty.

4.15 The representative of the IFRB said that in view of the large number of requirements that had been submitted and the problems involved in satisfying all of them, serious consideration should be given to the possibility of time sharing for coast stations.

4.16 The delegate of the Federal Republic of Germany said that an operational review carried out recently by his Administration had found that time sharing created difficulties in practice since coast stations in adjoining areas generally had approximately the same peak traffic hours.

4.17 The delegate of Denmark proposed that the Committee should adopt the recommendation on the subject in Document 36 with the addition of the comments just made by the representative of the IFRB.

The Committee took note of the recommendation on hours of operation in Document 36 and the various points raised in discussion.

Number of frequencies

4.18 The delegate of Spain said that no decision should be adopted on the issue that would be detrimental to the operation of A1A Morse telegraphy. In his view it was necessary to retain separate frequencies for the two systems (A1A and F1B).

4.19 In that context, the delegate of France noted that A1A Morse telegraphy was still in wide use at present, although as time went on it would increasingly be replaced by F1B narrow-band direct printing, which was the system of the future. The transition period when the two systems were in coexistence would necessarily be of some duration and that would need to be taken into account in any frequency-sharing plans.

4.20 The delegate of Denmark supported the recommendation in Document 36.

4.21 The delegate of the Federal Republic of Germany supported by the delegates of Norway and France proposed, as a compromise solution, that the Swedish recommendation should be applied in principle but that in cases where administrations at present operating with A1A intended to introduce F1B in the very near future they should be assigned some additional frequencies for the purpose, and that those administrations not intending to introduce F1B for some time would receive A1A assignments on the understanding that they would eventually be used for F1B.

4.22 The delegate of the United Kingdom noted, with confirmation from the delegate of Sweden, that the point under discussion applied only to the 500 kHz band. Committee 4 was at present working on protection criteria for the two systems in question; Committee 5's decision in the matter should therefore be deferred until the results of Committee 4's work was available.

4.23 The Chairman suggested that consideration of the number of frequencies for A1A-F1B emissions should be left aside pending developments in Committee 4. He invited the Committee to consider paragraph 3 of Document 36.

4.24 The representative of the IFRB said that the Board would need formal notification of assignments to stations of permitted services for which protection was no longer claimed. Deletions could be taken into account on the understanding that formal notification would be forthcoming shortly. If it did not materialize, the assignments would remain in the Master Register. Formal notice was also required of amendments to or deletions of assignments to stations of other services than those being planned at the present Conference.

5. Consideration of power-service range

5.1 The representative of the IFRB said that, now that Committee 5 had adopted the program proposed by Sweden in Document 24, it would be helpful if administrations could bring their transmitter power into line with their field strength or, failing that, if they could indicate to the Board on which basis they wished it to proceed.

That suggestion was noted.

6. Actions required by Resolution No. 38 (Document 26)

6.1 The representative of the IFRB introduced Document 26.

The Committee took note of the Document.

7. Report by the Chairman of Committee 5 to the Plenary (Document DT/5)

7.1 The Chairman drew attention to Document DT/5 containing the draft of his report to the Plenary meeting concerning the Committee's decision that, in principle, the permitted service should not be taken into account during the planning process.

7.2 The delegate of Denmark informed the Committee that meetings were in progress between some of the countries mentioned in RR 483. It would be helpful if, pending the outcome of those meetings, the draft report could be held in abeyance.

It was so agreed.

The meeting rose at 1200 hours.

The Secretary: The Chairman:

G. KOVACS T. BØE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 56-E
March 1985
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COMMITTEE 6

SUMMARY RECORD

OF THE

SECOND MEETING OF COMMITTEE 6

(AGREEMENT AND PROCEDURES)

Wednesday, 27 February 1985, at 1400 hrs

Chairman: Mr. S. CHALLO (Kenya)

Subjects discussed:	Documents
1. Establishment of Working Groups	DL/3
2. Guidelines to be applied in the development of procedures for future modifications of the Plan to permit compatible development of the other services to which the bands are allocated	9(Rev.1), 22, DT/5

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Establishment of Working Groups (Document DL/3)

The Committee decided to establish Working Group 6A under the chairmanship of Mr. Menchen (Spain) and Working Group 6B under the chairmanship of Mr. M.J. Bates (United Kingdom), with the terms of reference set out in Document DL/3.

2. Guidelines to be applied in the development of procedures for future modifications of the Plan to permit compatible development of the other services to which the bands are allocated (Documents 9(Rev.1), 22, DT/5)

2.1 The Chairman said that the modification procedures could be divided into three categories, the first relating to modifications to stations in the planned services vis-à-vis stations in the Plan, the second, to modifications to stations in the planned services vis-à-vis those in other services to which the bands were allocated and the third, to modifications to new stations of other services vis-à-vis stations in the Plan. The second and third categories should be considered with respect to administrations parties and non-parties to the Agreement; Article 12 of the Radio Regulations was applicable to the second case.

It should be noted that, despite the contents of §§ 4.1 and 4.2 of Document 22, Committee 5 was considering a decision (Document DT/5) not to take the permitted service into account during the planning process. Finally, special attention should be paid to § 4.3 of the IFRB document.

2.2 The representative of the IFRB said that, in addition to the categories of procedures listed by the Chairman, the Committee must consider the technical criteria to be used for their application. Even if it was decided not to take the permitted service into account, the fact remained that the assignments concerned were recorded in the Master Register and must be protected. It should be made clear which criteria - those adopted by the Conference or those normally applied by the IFRB - should be used after the Conference to evaluate incompatibility between assignments in the planned and unplanned services, since differences between the two sets of criteria could lead to over-protection of one service at the expense of the other. The Board would submit the results of its analysis of the situation created by the proposal before Committee 5 in a few days. Finally, with regard to the proposal that replacement frequencies should be found for assignments in the permitted services, that was an extremely complex exercise, but was feasible in view of the Board's experience in such matters.

2.3 In response to comments by the delegate of Spain, the representative of the IFRB pointed out that the Conference agenda clearly referred to the preparation of only one Agreement and several associated Plans. The IFRB would be prepared to update the entries for unplanned services in the Master Register when all the existing assignments for planned services were deleted from the Register. A Recommendation might be adopted requesting WARC MOB-87 to consider the inclusion of the decisions of the present Conference in the Radio Regulations.

2.4 The delegate of the United Kingdom said that the Committee might simplify its work by making three broad assumptions - firstly, that the technical criteria for modifications after the Conference would come from Committee 4; secondly, that although some criteria for sharing the bands between the planned and unplanned services with equal rights after the Conference would be developed during the Conference, the IFRB Technical Standards, adapted to the Conference criteria, would be used to take account of the positions of countries not represented; and thirdly, that the parties to the Plans would remove their assignments in the bands concerned from the Master Register on the date of the implementation of those Plans. The delegate of Italy said that those assumptions seemed to relate to a Plan for primary services only and asked whether the IFRB would have time to draw up an additional Plan for the permitted service.

2.5 The representative of the IFRB, referring to the first assumption, said that Committee 6 would be well advised to bring the need for technical criteria for modification procedures to the attention of Committee 4. With regard to the second assumption and the remark of the delegate of Italy, even if the Conference decided not to plan for the permitted service, it should develop post-Conference modification procedures for both primary and permitted services in the bands 415 to 526.5 kHz; but the procedures for services in the bands 1 606.5 to 2 160 kHz should be governed by Article 12 of the Radio Regulations, based on the IFRB Technical Standards, which would certainly be adapted to the Conference's decisions. Finally, the third assumption was essential to enable the Board to find replacement frequencies for the permitted services; the Committee should perhaps adopt a Resolution on the subject.

2.6 The delegate of the USSR observed that Committee 5 had not yet adopted the decision in Document DT/5. With regard to the proposed procedure for services in the bands 1 606.5 to 2 160 kHz, particular care should be taken to ensure that the parties to the Agreement were not ultimately placed in a less advantageous position than the non-parties. The delegates of France and Sweden endorsed those remarks.

2.7 The representative of the IFRB explained that the Board did not use the term "non-parties to the Agreement" to denote countries which had not ratified or acceded to that instrument, but that all countries participating in a conference or invited by the Board to submit requirements were regarded as parties unless they specifically admitted to the contrary. The countries governed by the Article 12 procedure were those not considered as parties to the Agreement.

2.8 After a further exchange of views, the Chairman said that a memorandum would be sent to Committee 4 asking it to indicate the technical criteria to be used in examining modifications to the Plan and that a Resolution should be drafted concerning the clearance of the Master Register and the need to provide appropriate protection for the permitted services, provided that, as a counterpart, those services undertook to protect all the assignments appearing in the Plan, not only the assignments in use (Document 22, § 5.3.3).

He observed that the discussion should have provided Working Group 6A with the necessary guidelines.

The meeting rose at 1530 hours.

The Secretary:
J. BALFROID

The Chairman:
S. CHALLO

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 57-E
1 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

THIRD MEETING OF COMMITTEE 4

(TECHNICAL)

Wednesday, 27 February 1985, at 0900 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:		Document
1.	Report of ad hoc Group 1	-
2.	Protection ratio for frequency offset for A1A emissions (continued)	DT/4
3.	Technical criteria to be applied for the reassignment of replacement frequencies for stations of the maritime mobile service	-
4.	Technical criteria to be applied when establishing the Plan for the maritime mobile service to afford appropriate protection to frequency assignments to stations of other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are also allocated	23

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Report of ad hoc Group 1

1.1 The Chairman of ad hoc Group 1 reported that the Group had reached a majority decision in connection with the calculations made by the CCIR and the figures submitted in its report to the Conference. The Group had considered three topics: a) differences in atmospheric noise levels between areas; b) variation in noise levels with time; and c) signal fading with time. From the CCIR calculations it appeared they had accounted for a) and b) for 90% of the time. For c) the CCIR had used Recommendation No. 339 which suggested a method for allowing for signal fading with time; a calculation had been made to allow for signal fading with time and figures had been produced which could be added to the CCIR figures published in its report to the Conference which would make an allowance for signal fading with time for 90% of the time.

1.2 The Chairman said that further consideration of the item would be deferred until the report of ad hoc Group 1 was available as a working document.

2. Protection ratio for frequency offset for A1A emissions (continued) (Document DT/4)

2.1 The Chairman recalled that at the preceding meeting he had made the following compromise proposal for the protection ratio for frequency offset for A1A emissions:

- 20 dB at 500 Hz separation

- 45 dB at 1 kHz separation

- 60 dB at 1.5 kHz separation

2.2 The delegate of Sweden, supported by the delegates of Denmark and the Netherlands, said that he could accept that compromise proposal.

2.3 The delegate of Spain, supported by the delegates of Kenya and Switzerland, said they found it more acceptable to subdivide the band for A1A and F1B emissions, as had been suggested the previous day.

2.4 In the course of the ensuing discussion, it was pointed out that virtually no ships used F1B emissions except those from more developed countries, that in view of the financial situation of the shipping industry there was no point in imposing an extra financial burden by making it replace equipment which would soon be phased out, that it was not desirable to produce a Plan (to come into force only several years hence) which was not based on the most recent equipment, and that adoption of the compromise proposal should make it possible to accommodate a higher proportion of requirements in the Plan.

2.5 The delegate of the Federal Republic of Germany and the delegate of Spain put forward alternative compromise proposals.

It was finally agreed to defer a decision, to permit further consideration of the matter.

3. Technical criteria to be applied for the reassignment of replacement frequencies for stations of the maritime mobile service

3.1 The Chairman said that the technical criteria to be applied for the reassignment of replacement frequencies when establishing the Plan for the maritime mobile service constituted the second part of the Committee's terms of reference and involved taking account of the relevant operative paragraphs of Resolution No. 38 of WARC-79. In his view, the solution was simply to recommend that the same technical criteria should be applied for the reassignment of replacement frequencies as those agreed for establishing the Plan itself.

3.2 The delegate of Sweden said that he fully supported the Chairman's view. His understanding was that the coast station assignments which needed replacement frequencies were included in the requirements and that the same technical criteria would be applied to them as to other requirements.

3.3 The Chairman said that, if he heard no objection, he would take it that the Committee agreed. Although unanimity had not yet been reached on the technical criteria themselves, it was accepted that the same criteria should apply in both cases.

It was so decided.

4. Technical criteria to be applied when establishing the Plan for the maritime mobile service to afford appropriate protection to frequency assignments to stations of other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are also allocated (Document 23)

4.1 The delegate of Sweden introduced his country's proposals for the technical criteria to be applied where consideration had to be given to the protection of stations of other primary services, in particular the fixed and land mobile services in certain countries of Region 1, and pointed out that they contained specific criteria for use in planning transmit frequencies for coast stations of the maritime mobile service. Those criteria were based on receiver selectivity characteristics for single sideband transmissions J3E, but he hoped that they would still be acceptable for planning purposes.

4.2 The Chairman of the IFRB said that consideration would have to be given to the protection of stations in Regions 2 and 3, as well as those of countries listed in footnote 483. The Board would expect to use its own Technical Standards set out in Document 31 to check Plan assignments against entries in the Master Register which had full primary status from all three Regions. The Board's Standards differed from the criteria proposed by Sweden but were regularly used for the examination of notices under Article 12.

In reply to the delegate of Sweden who asked whether use of the proposed simplified criteria would cause any problems, he said that such use could only provide guidance in assigning frequencies. The final analysis of the Plan had to meet the Board's Technical Standards. The Swedish criteria could be used for planning purposes if the Board's Standards could not be incorporated into the Swedish computer program.

4.3 The delegate of Sweden said that the planning program was not designed to apply IFRB Standards but it did offer a way of finding frequencies which might be used to synthesize a Plan. He accepted that the final analysis of the Plan had to satisfy the IFRB's normal Technical Standards.

4.4 The Chairman said that if the Committee agreed, the Swedish computer program could be used for planning purposes, employing the technical criteria proposed in Document 23, in the knowledge that the analysis of the Plan would be performed in accordance with the IFRB Technical Standards in Document 31. That being the case, detailed discussion of the technical criteria in Document 23 was unnecessary.

It was so decided.

4.5 The Chairman said that he had been informed that consideration would be given to providing appropriate protection to stations of primary services in all three Regions, but permitted services would not be taken into account. The Swedish computer program should be used to make a selection of frequencies to meet the criteria set out in Document 23. The final compatibility analysis of the Plan would be performed by the IFRB in accordance with its normal Technical Standards. He would prepare a document to that effect for transmission to the Planning Committee.

The meeting rose at 1130 hours.

The Secretary: The Chairman:

O. VILLANYI E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 58(rev.1)-E
1 March 1985
Original : French
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Spanish

COMMITTEES 4, 5 AND 6

NOTE BY THE CHAIRMAN OF COMMITTEE 3 TO THE
CHAIRMEN OF COMMITTEES 4, 5 AND 6

At its first meeting, Committee 3 took note of Article 80 of the Convention and Resolution 48 of the Nairobi Conference, reproduced in Document 20 by the Secretary-General. The Committee recognized that under these provisions of the Convention, conferences were required inter alia, before adopting Resolutions or taking decisions which are likely to result in additional and unforeseen demands upon the budgets of the Union :

1) to prepare and take into account estimates of the additional demands made on the budgets of the Union;

2) where two or more proposals are involved, to arrange them in an order of priority;

3) to prepare and submit to the Administrative Council a statement of the estimated budgetary impact, together with a summary of the significance and benefit to the Union of financing the implementation of those decisions and an indication of priorities where appropriate.

Consequently, Committee 3 recommends that, in their work and in making proposals to the Plenary, Committes 4, 5 and 6 should :

1) take account of paragraphs 1), 2) and 3) above when identifying activities resulting from this Conference which will have a budgetary impact;

2) in the event that decisions are taken which may have a budgetary impact, send an information note to Committee 3 at the earliest opportunity describing the nature of the decision and if possible, with the assistance of the permanent organs of the Union concerned, providing an outline of the estimated cost of implementing the decision.

Sami S. AL-BASHEER
Chairman of Committee 3

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 58-E
28 February 1985
Original : French
English
Spanish

COMMITTEES 4 AND 5

NOTE BY THE CHAIRMAN OF COMMITTEE 3 TO THE
CHAIRMEN OF COMMITTEES 4 AND 5

At its first meeting, Committee 3 took note of Article 80 of the Convention and Resolution 48 of the Nairobi Conference, reproduced in Document 20 by the Secretary-General. The Committee recognized that under these provisions of the Convention, conferences were required inter alia, before adopting Resolutions or taking decisions which are likely to result in additional and unforeseen demands upon the budgets of the Union :

1) to prepare and take into account estimates of the additional demands made on the budgets of the Union;

2) where two or more proposals are involved, to arrange them in an order of priority;

3) to prepare and submit to the Administrative Council a statement of the estimated budgetary impact, together with a summary of the significance and benefit to the Union of financing the implementation of those decisions and an indication of priorities where appropriate.

Consequently, Committee 3 recommends that, in their work and in making proposals to the Plenary, Committees 4 and 5 should :

1) take account of paragraphs 1), 2) and 3) above when identifying activities resulting from this Conference which will have a budgetary impact;

2) in the event that decisions are taken which may have a budgetary impact, send an information note to Committee 3 at the earliest opportunity describing the nature of the decision and if possible, with the assistance of the permanent organs of the Union concerned, providing an outline of the estimated cost of implementing the decision.

Sami S. AL-BASHEER
Chairman of Committee 3

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 4

SUMMARY RECORD

OF THE

FOURTH MEETING OF COMMITTEE 4

(TECHNICAL)

Wednesday, 27 February 1985, at 1400 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Replace section 2.4 by the following text:

"2.4 - The delegate of Spain agreed that the calculations were effected correctly but he wondered whether the results were realistic, since they appeared low for the area above latitude 30°N and high for the area south of latitude 30°N."

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 59-E
4 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

FOURTH MEETING OF COMMITTEE 4

(TECHNICAL)

Wednesday, 27 February 1985, at 1400 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:		Documents
1.	Protection ratio for frequency offset for A1A emissions	DT/4
2.	Report of ad hoc Group 1 (Minimum usable field strength)	DL/4
3.	Use of directional antennas	41
4.	Note from Committee 4 to Committee 5	DT/6

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Protection ratio for frequency offset for A1A emissions (continued) (Document DT/4)

1.1 The Chairman invited delegations to accept the consensus solution proposed at the Committee's previous meeting.

1.2 The delegate of Sweden urged the Committee to accept parameters less stringent than those laid down for the CCIR curves.

1.3 The delegate of Spain agreed that the consequence of adhering to the curves indicated by the CCIR would render many channels unusable but felt that the protection ratios of -20 dB, -45 dB and -60 dB suggested in the compromise were too rigid. His delegation could, however, accept protection ratios of -13 dB for 500 Hz, -26 dB for 1 kHz, -42 dB for 1.5 kHz and -60 dB for 2 kHz separation. Only three channels for each would then be invalidated.

1.4 The delegate of Greece supported those figures.

1.5 The delegate of France drew attention to the need to know what the distribution for A1A and F1B modes would be, as close proximity of the two modes would raise greater problems.

1.6 The Chairman replied that Committee 5 had not yet reached a decision on channel distribution.

The Committee agreed to the figures proposed by the delegate of Spain.

1.7 The delegate of Sweden expressed a warning that the Committee would have to accept the consequences of its choice and perhaps reverse its decision at a later date.

1.8 The delegate of the United Kingdom asked for a comment to be added in the report to the Plenary Meeting suggesting how any difficulties encountered might be resolved.

It was so agreed.

2. Report of the ad hoc Group 1 (Minimum usable field strength) (Document DL/4)

2.1 The Chairman of ad hoc Group 1 presented Document DL/4, explaining that the methods of calculation used were advocated in Recommendation 339, footnote 4 to Table 1, and stressing that the worst four-hour period for Region 1 and the worst case contour in each area had been selected for use in the calculation.

2.2 The delegate of France expressed his dissatisfaction with the findings set out in Document DL/4; he considered that the figures given had unfortunate implications for safety - distress calls might not be heard as the margins were too small. He felt that since there were two factors involved in the calculation - fading and noise - and that protection was required for 90% of the time in each case, the agglomerate protection should amount to 95% of the time. He therefore advocated that a margin of 4 dB should be allowed to overcome noise and a further 10 dB for fading, making a total of 14 dB. That was the figure set out in a document prepared by his delegation which would be available the following day.

2.3 The delegate of the United Kingdom pointed out that the two factors were statistically independent and that the correct figure was 90%. Moreover, the calculations had been carried out in an approved and recommended method.

2.4 The delegate of Spain agreed that the calculations were effected correctly but he wondered whether the results were realistic, since they appeared low for the area above latitude 30°N and very low for the area south of latitude 30°N.

2.5 The delegate of Denmark supported Document DL/4.

2.6 After a short discussion, an informal group of members of the Committee unanimously recommended that the figures on page 3 of Document DL/4 should be amended to read 6.5 dB, 6.5 dB and 3 dB instead of 3 dB, 3.5 dB and 1 dB respectively.

It was so agreed.

3. Use of directional antennas (Document 41)

3.1 The Chairman said that computer planning would be based on omnidirectional antennas but that directional antennas might be taken into account in bilateral negotiations if both parties so desired.

It was so agreed.

3.2 The delegate of the Federal Republic of Germany introduced Document 41, prepared by his delegation, which contained information on directional antennas for the 500 kHz and 2 MHz bands, to assist in case-by-case planning.

In reply to a question from the delegate of the United Kingdom, he explained that the null depth figure of 30 dB had been obtained in laboratory conditions. However, a minimum of 20 dB should be feasible in a real situation with irregularities in the ground.

4. Note from Committee 4 to Committee 5 (Document DT/6)

4.1 The delegate of the United Kingdom, referring to subsection 1.1.1, said that as he had understood it the Committee had agreed the previous day to use the 500 kHz ground-wave curve for all frequencies between 415 and 526.5 kHz.

It was agreed after consultation, that the 400 kHz curve should remain, as given in Document 24.

4.2 The delegate of Spain referring to subsection 1.1.2, requested that it be mentioned that for problem cases in co-channel assignments, the sky-wave method described in Document 6 and Add.1 be used for case-by-case analysis.

The Chairman replied that this matter was covered in section 1.7.

4.3 The delegate of the United Kingdom proposed that the first indent of subsection 1.1.2 should read as follows:

"Calculation according to CCIR Recommendation 435-4 for midnight conditions, polarization coupling loss and sea-gain are not taken into account."

It was so agreed.

4.4 The representative of the CCIR suggested that for the sake of clarity Figures 2 and 3 of Addendum 1 to Document 6 be added to the penultimate indent of subsection 1.1.2 and that Figures 6 and 7 of the same document be added to the last indent, since Recommendation 435 did not provide figures for 1 800 kHz.

It was so agreed, on the understanding that the additions would be incorporated in the relevant white document.

4.5 The delegate of the United Kingdom, referring to the previous day's discussions on the manner of specifying and stating transmitting power, pointed out that it would be essential in the Plan to indicate a transmitter power parameter. He was therefore concerned by the introductory word "if" in section 1.6.

4.6 The Chairman said that, to his recollection, the Committee had agreed that there was no need to indicate the transmitter power in the Plan, and that the coverage area and other data only should be included. Furthermore, it was not for the Technical Committee to say whether or not such a parameter should be included in the Plan.

4.7 The Chairman of the IFRB suggested that the subject be left open until the item on the conversion of the e.m.r.p. to the power supplied to the antenna transmission line was considered, since the Board would have difficulties if the Plan contained only the e.m.r.p. without further guidance. To simplify matters, he suggested that the words "to be provided later" be added under section 1.6, and that the relevant information be submitted to Committee 5 as an addendum.

It was so agreed.

4.8 The delegate of the United Kingdom referring to subsection 2.1 recalled that the Committee had agreed the previous day that propagation should be calculated over land, taking 10^{-2} S/m as the conductivity of the land. In determining coverage, there was no problem with that parameter. However, the interference case had to be taken into consideration. For the maritime mobile case, it had been a safe planning procedure to take oversea curves, because in cases of mixed paths the interference experienced would be less than predicted in the Plan. In the case of aeronautical radionavigation, propagation was being calculated over land, and if mixed paths were involved, interference would be greater than that included in the planning process. One solution might be to strengthen the comments in subsection 2.7, by stating that the factor must, rather than could, be taken into consideration in a case-by-case analysis.

4.9 The Chairman doubted whether a simple statement in subsection 2.7 would serve the purpose.

4.10 The delegate of the United Kingdom wondered whether there would be time, having carried out a computer analysis based on overland propagation, for administrations to look at the results on a case-by-case basis to identify whether any substantial part of the paths concerned were over sea. If so, manual calculations would have to be made after the computer analysis.

4.11 The Chairman of the IFRB said that provided all decisions were taken by Committee 4 and Committee 5 by the evening of Thursday, 28 February, the analysis program could be run over the weekend so that delegations would receive the results on Monday, 4 March. They would then have a week in which to make their own analysis of the results, so that a second and final run could be made the following weekend.

4.12 The delegate of Greece wondered whether the Swedish computer program used only one parameter for every radiobeacon location, since it might be possible to use either ground or sea conductivity according to the geography.

After some discussion it was established that when the program was run in the automatic mode only one curve could be used.

4.13 The delegate of the United Kingdom, having further explained the calculation procedures, was invited by the Chairman to put forward a new wording for subsection 2.7. He said that the form of words would depend on the ground conductivity figure retained in subsection 2.1

It was agreed to defer a decision on the aeronautical radionavigation service until the following day, and in the meantime to transmit only the section on the maritime mobile service to Committee 5.

The meeting rose at 1700 hours.

The Secretary: The Chairman:

O. VILLANYI E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 60-E
28 February 1985
Original: English

COMMITTEE 5

FIRST NOTE FROM COMMITTEE 4 TO COMMITTEE 5

The annex contains the decisions of Committee 4 concerning the technical parameters necessary for the establishment of frequency assignment plans in the following bands in Region 1:

- for the maritime mobile service:
  415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz,
  1 635 - 1 800 kHz and 2 045 - 2 160 kHz;

- for the aeronautical radionavigation service:
  415 - 435 kHz and 505 - 526.5 kHz.

E. GEORGE
Chairman of Committee 4

Annex: 1

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ANNEX

Technical parameters for the establishment of frequency assignment plans

1. Maritime mobile service

1.1 Propagation

1.1.1 Ground-wave propagation

- Sea water, average salinity, 20°C, $\sigma = 5$ S/m, $\varepsilon = 70$ (CCIR Recommendation 368-4, Figure 1)

- Band 415 - 435 kHz: curve for 400 kHz

- Band 435 - 526.5 kHz: curve for 500 kHz

- Bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz: curve for 2 MHz

1.1.2 Sky-wave propagation

- Calculation according to CCIR Recommendation 435-4 for midnight conditions, polarization coupling loss and sea gain are not taken into account (see also Document 15, paragraph 2.1.2)

- Field strengths produced by coast stations situated north of parallel 20° North and South of parallel 20° North will be calculated for geomagnetic latitudes 50° North and 30° South, respectively

- Bands 415 - 435 kHz and 435 - 526.5 kHz: curve for 500 kHz (Figures 2 and 3 of Document 6(Add.1); English text: see also Document 6(Add.1)(Corr.1))

- Bands 1 606.5 - 1 625, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz: curve for 1 800 kHz (Figures 6 and 7 of Document 6(Add.1))

1.1.3 Application of ground- and sky-wave propagation

- Ground-wave field strength: determination of coverage area

- Ground-wave field strength: determination of interference range, if no night time protection is required

- Maximum of ground and sky-wave field strength: determination of interference range, if night time protection is required

  Note - This approach will considerably reduce the number of available assignments.

1.2 Minimum usable field strength

1.2.1 Band 415 - 526.5 kHz

A1A: 36.5 dB(μV/m) north of and on parallel 30° North
56.5 dB(μV/m) south of parallel 30° North

F1B: 31.5 dB(μV/m) north of and on parallel 30° North
51.5 dB(μV/m) south of parallel 30° North

1.2.2 Bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz

F1B: 22.5 dB(μV/m) north of and on parallel 30° North
42.5 dB(μV/m) south of parallel 30° North

J3E: 37 dB(μV/m) north of and on parallel 30° North
57 dB(μV/m) south of parallel 30° North

1.3 Protection ratio

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB		
	Wanted signal		
	A1A interfering signal A1A or F1B	F1B interfering signal F1B or A1A	J3E interfering signal J3E
0	8	8	20
0.5	-13*	-38	
1.0	-26*	-62	
1.5	-42*		
2.0	-60*		
3.0			-25
6.0			-50

* If planning difficulties arise, these values would have to be modified.

1.4 Multiple interference

For a given compatibility calculation only the interference contribution from the strongest interfering signal shall be considered.

1.5 Channel spacing

A1A and F1B: 0.5 kHz
J3E : 3 kHz

1.6 Transmitting power

The Plan shall indicate the transmitting power in terms of the e.m.r.p. and in terms of the power supplied to the antenna transmission line. The e.m.r.p. shall be derived from the minimum usable field strength at the edge of the coverage area. The power supplied to the antenna transmission line shall be derived from the e.m.r.p. by applying the following typical values of antenna gain (see Radio Regulation 154) relative to a short vertical antenna, which include the loss of the antenna coupling unit:

Band 415 - 526.5 kHz: -7 dB

Bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz, 2 045 - 2 160 kHz: -4 dB

1.7 Further considerations

Due to constraints in the available computer program, the computer analysis of the plan can neither take account of propagation over mixed paths nor of a more sophisticated method of sky-wave field strength prediction. These factors can, however, be taken into consideration in a case-by-case analysis, e.g. when solving incompatibilities during the conference. For mixed path propagation the Millington method, described in CCIR Recommendation 368, and for sky-wave propagation the simplified method described in Document 6, which is based on CCIR Recommendation 435, should be used.

In general, omnidirectional antennas are assumed. However, on a case-by-case basis, directional antennas may be taken into consideration, which would increase the sharing possibilities. Information on directional antennas is contained in Document 41.

1.8 Protection of the maritime mobile service in the bands 415 - 435 kHz and 505 - 526.5 kHz from interference from the aeronautical radionavigation service

The parameters given in sections 1.1, 1.2 and 1.4 to 1.7 apply. The protection ratios shall be as follows:

Frequency separation between wanted and interfering signals in kHz	Protection ratio in dB			
	interfering radiobeacon with 400 Hz modulation		interfering radiobeacon with 1 020 Hz modulation	
	wanted signal A1A	wanted signal F1B	wanted signal A1A	wanted signal F1B
0	8	8	8	8
0.5	2	2	-13	-38
1.0	-19	-44	2	2
1.5	-32	-68	-19	-44
2.0	-48		-32	-68
2.5	-66		-48	
3.0			-66	

2. Aeronautical radionavigation service

2.1 Propagation (see also section 2.7)

- Ground-wave propagation only
- Wet ground, $\sigma = 10^{-2}$ S/m, $\varepsilon = 30$ (CCIR Recommendation 368-4, Figure 3)
- Band 415 - 435: curve for 400 kHz
- Band 505 - 526.5: curve for 500 kHz

2.2 Minimum usable field strength

- 37 dB(μV/m) for stations north of parallel 30° North and South of parallel 30° South;
- 41.6 dB(μV/m) for stations between parallels 30° North and 30° South.

2.3 Protection ratio

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB
0	15
1	9
2	-5
3	-20
4	-35
5	-50
6	-65

2.4 Multiple interference

For a given compatibility calculation only the interference contribution from the strongest interfering signal shall be considered.

2.5 Channel spacing

1 kHz

2.6 Transmitting power

The transmitting power shall be indicated in the Plan in terms of the e.m.r.p. It shall be derived from the minimum usable field strength at the edge of the coverage area.

2.7 Further considerations

Due to constraints in the available computer program, the computer analysis of the plan cannot take account of propagation over mixed land/sea paths. Section 2.1 indicates that the propagation characteristics are to be predicted as for "wet ground" and thus when a significant fraction of the path from an interfering emission to the wanted coverage area is across sea water the predicted interference level may be underestimated. It will thus be necessary to examine each draft plan to ensure that possible incompatibilities due to actual sea paths are identified. Each such case shall be analyzed individually by the delegations concerned using the curves for the appropriate conductivity. Where mixed paths are concerned the Millington method described in CCIR Recommendation 368 should be used.

2.8 Protection of the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz from interference from the maritime mobile service

The criteria given in 2.1 to 2.7 apply, assuming that the maritime mobile signal (A1A or F1B) has the same interference potential as an aeronautical radiobeacon signal.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 61-E
28 February 1985
Original: English

COMMITTEE 5

SECOND NOTE FROM COMMITTEE 4 TO COMMITTEE 5

Subject: Technical criteria to be applied for the reassignment of replacement frequencies for stations of the maritime mobile service (item 2.2 of the agenda)

Committee 4 has decided that the criteria should be those already adopted for the establishment of a frequency assignment plan for the maritime mobile service in Region 1 in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz (see Document 60).

E. GEORGE
Chairman of Committee 4

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 62-E
28 February 1985
Original: English

COMMITTEE 5

THIRD NOTE FROM COMMITTEE 4 TO COMMITTEE 5

Subject: Technical criteria to be applied, when establishing the Plan for the maritime mobile service in order to afford appropriate protection to frequency assignments to stations of other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are also allocated (item 2.3 of the Agenda)

In order to meet the above-indicated objective, Committee 4 has decided a two-step approach.

Step 1: In applying the planning program (Swedish part of the computer program package, see Document 24), a frequency is selected on the basis of the technical criteria given in the annex.

Step 2: In applying the incompatibility analysis program (IFRB part of the computer program package, see Document 31) a final compatibility analysis vis-à-vis stations of the fixed and land mobile service will be carried out on the basis of the IFRB Technical Standards (Document 31, Annex 2). This analysis will identify harmful interference in both directions.

It is for Committee 5 to decide for which categories of services (primary, permitted) and regions (Region 1 only or more than one region) this analysis shall be carried out.

E. GEORGE
Chairman of Committee 4

Annex: 1

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ANNEX

Technical criteria to be applied for the selection of frequencies for stations of the maritime mobile service in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz

1. Propagation

1.1 Ground-wave propagation

Wet ground, $\sigma=10^{-2}$ S/m, $\varepsilon=30$ (CCIR Recommendation 368-4, Figure 3, curve for 2 MHz).

1.2 Sky wave propagation

Calculation for 1 800 kHz according to CCIR Recommendation 435-4 for midnight conditions, polarization coupling loss and sea gain are not taken into account; field strengths produced by coast stations situated north of parallel 20° North and South of parallel 20° North will be calculated for geomagnetic latitudes of 50° North and 30° South, respectively (see Figures 6 and 7 of Document 6 (Add.1)).

1.3 Application of ground and sky wave propagation

The maximum of ground and sky wave field strength will determine the interference range.

2. Minimum usable field strength

39 dB(μV/m)

3. Protection ratio

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB
0	20
2	0
2.5	-14
3	-24
3.5	-31
4	-37
4.5	-43
5	-48
5.5	-54
6	-60

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Document 63-E
1 March 1985
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COMMITTEE 5

NOTE BY CHAIRMAN OF COMMITTEE 5

As of 28 February 1985, Committee 5 had taken the following decisions:

1. Committee 5 considered provision No. 419 of the Radio Regulations and decided that in principle, the permitted services should not be taken into account during the planning process.

1.1 However, in the bands 415 to 435 kHz and 505 to 526.5 kHz problems raised by existing assignments of the permitted service seem to be limited and can be solved on a case by case basis during the planning process.

1.2 Concerning the stations of the fixed and land mobile services under RR 483 in the bands 1 606.5 - 1 800 kHz and 2 107 - 2 160 kHz it is generally accepted, in principle, by the administrations concerned, that compatibility calculations concerning these stations will be based on ground-wave propagation only. As only a very few incompatibility problems are expected it is agreed that no account should be taken of these stations during the planning process for the maritime mobile service. If, however, the compatibility analyses made by the IFRB, based on ground-wave propagation, show incompatibilities between the frequency assignment plan for the maritime mobile service and the stations of the fixed and land mobile services under RR 483, these problems shall be solved either by adjustment of assignments in the maritime mobile plan or by tranferring some stations of the fixed or land mobile service to other frequencies in the same bands. The original IFRB Finding in the Master Frequency Register for the transferred assignments shall be retained.

Several administrations reserved the right to revert to this subject, once first results of the planning process are available.

2. Order of meeting the requirements in the planning process for coast stations

2.1 Bands contained in Appendix 1 of Resolution No. 704 (MOB-83)

2.1.1 The order of priority for the first planning exercise should be as follows:

1) one channel (two-paired frequencies) per coast station, day and night-time protection (sky wave);

2) additional channels with day time protection only;

3) additional requirements to be satisfied only with reduced service range or reduced protection, as necessary.

Reservation: Greece.

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2.1.2 If the results of the first planning exercise with the conditions mentioned above are not satisfactory, another planning exercise should be carried out under the following conditions:

1) one channel (two-paired frequency) per coast station, day time protection only (ground-wave);

2) additional channels as in paragraphs 2) and 3) of point 2.1.1.

Reservation: Greece.

2.1.3 When assigning frequencies for coast stations the first frequency should be protected according to the A1A criteria, the additional ones are to be protected under F1B criteria, if pertaining in the requirement.

This is to be made on the understanding that, A1A emissions could also be used on F1B assignments and vice versa.

Reservation: Greece.

2.2 Bands contained in Appendix 2 of Resolution No. 704 (MOB-83)

2.2.1 During the planning process, the following order of priority should be observed for coast stations using radiotelephony:

1) replacement requirements for the purpose of Resolution No. 38 (WARC-79) and replacement requirements for frequencies currently used within the bands to be planned by the Conference, without improving conditions such as replacing a common frequency for several stations by assigning a number of different frequencies;

2) new requirements.

Reservation: Spain.

2.2.2 During the planning process, coast station requirements for narrow-band direct-printing telegraphy, the following priority will be observed:

1) one channel (two-paired frequency) per coast station, day time protection only (ground-wave);

2) additional channels with day time protection only;

3) additional requirements to be satisfied only with reduced service range or reduced protection, as necessary.

2.2.3 No night-time protection should be afforded during the planning process either for radiotelephony or radiotelegraphy in the 2 MHz band.

Reservation: France, Spain.

2.3 No distinction should be made between official and public correspondence.

2.4 Consideration was given to Document 12 (F/12/1, F/12/2 and F/12/3) on retaining existing frequencies when planning. Committee 5 could not go along with this proposal. The French delegation reserved the right to come back to that issue at a later date.

2.5 Channelling arrangements

2.5.1 In the 500 kHz bands, it was decided to use the channelling arrangement for the maritime mobile service described in Document NOR/S/15/11 with the amendment contianed in GRC/4/3. It was also decided to retain the international ship station working frequencies 454, 468 and 480 kHz according to RR 4237 and for this reason to exclude the two frequencies 468 and 480 kHz from the channelling arrangement. It was finally decided that the international working frequency 425 kHz should be replaced by the 1987 WARC.

2.5.2.1 Although in Resolution No. 704, Appendix 2, the number of available ship station radiotelephony frequencies is less than those for coast stations, it is proposed to plan all the 55 coast station frequencies. Pairing arrangements with ship station frequencies should be made as described in Document NOR/S/15/13 reusing ship station frequencies on the understanding that adjacent coast station channels will not be assigned to geographically adjacent coast stations. Administrations could use appropriate ship station frequencies outside the bands mentioned in Appendix 2 of Resolution No. 704, after notification to and conclusions of the IFRB.

2.5.2.2 Concerning the NBDP and DSC (F1B) channelling arrangement, the solution proposed in Document NOR/S/15/12 is retained. The frequency 2 170.5 kHz is designated for international DSC use (WARC-MOB-83).

3. Planning criteria for aeronautical radiobeacons

Committee 5 decided not to set up priority order to meet requirements for aeronautical radiobeacons in the band 415 - 435 kHz. During the planning process only day time protection should be afforded. In the band 510 - 526.5 kHz, after the planning exercise for the maritime mobile service, a second computer run will be carried out for radiobeacons.

Concerning the channelling arrangement for aeronautical radiobeacons the proposal contained in Document NOR/S/15/23 was adopted.

4. Planning program

Committee 5 decided to use the planning method and associated computer programs offered by the Swedish Administration. This method is described in Document S/24.

5. Incompatibility analysis program offered by the IFRB

The incompatibility analysis program offered by the IFRB (Document 31) was accepted by the Committee. It will produce incompatibility results between plan assignments and existing assignments recorded in the Master Register for other than planned services.

6. Needs of countries which have not submitted requirements and are not present at the Conference

Committee 5 decided to ask the IFRB to represent the interests of those countries.

7. Service range limitation

No final decision was taken on the subject of the maximum service range. For the purpose of the first computer run the following service ranges should be applied:

- in the 2 MHz bands: 400 km
- in the 500 kHz bands: 500 km.

Reservation: The Netherlands.

8. Planning Groups

Committee 5 decided to set up the Planning Groups:

5A: Chairman: Mr. A. Toumi (MRC)

5B: Chairman: Mr. K. Björnsjö (S).

The terms of reference of the Groups are as follows:

5A: On the basis of decisions taken by Committees 4 and 5

to establish frequency assignment plans in the following frequency bands in Region 1 having regard to Appendix 1 to Resolution No. 704 of the WARC for the Mobile Services, Geneva, 1983:

- for the maritime mobile service:
  415 - 435 kHz, 435 - 526.5 kHz;
- for the aeronautical radionavigation service:
  415 - 435 kHz and 505 - 526.5 kHz.

5B: On the basis of the decisions taken by Committees 4 and 5

to establish frequency assignment plans in the following frequency bands in Region 1 having regard to Appendix 2 to Resolution No. 704 of the WARC for the Mobile Services, Geneva, 1983:

- for the maritime mobile service:
  1 606.5 - 1 625 kHz,
  1 635 - 1 800 kHz and 2 045 - 2 160 kHz;

to reassign replacement frequencies for stations of the maritime mobile service in accordance with resolves 2 of Resolution No. 38 of WARC-79.

T. BØE
Chairman of Committee 5

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 64-E
4 March 1985
Original: English/Spanish

NOTE BY THE SECRETARY-GENERAL

At the request of the Chairman of the Inter-American Telecommunications Conference (CITEL), I transmit hereby the text of a Resolution adopted in the third meeting of the Permanent Technical Committee II held in Lima from 18 to 22 February 1985. This text is submitted to the Conference for information.

R.E. BUTLER
Secretary-General

Annex: 1

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ANNEX

RESOLUTION PTC.11/RES.16 (111-85)

SHARING OF THE BAND 1 605 - 1 705 kHz BETWEEN THE MARITIME MOBILE SERVICE IN REGION 1 AND THE BROADCASTING SERVICE IN REGION 2

The third meeting of Permanent Technical Committee 11 of the Inter-American Telecommunications Conference (CITEL) on Broadcasting - (PTC.11:Radif.)

noting

1. that a Regional Administrative Radio Conference for the Maritime Mobile Service (MM-R1) in certain parts of the MF band in Region 1 which will be convened on 25 February 1985 will be planning for the maritime mobile service in most of the 1 605 - 1 705 kHz band;

2. that a Regional Administrative Radio Conference for the Broadcasting Service in the band 1 605 - 1 705 kHz Region 2 will be convened on April 14, 1986;

3. that the decisions taken by these two Conferences could have considerable impact on the compatibility of the two services, particularly in areas near the boundary of Regions 1 and 2;

considering

1. the provisions of Article 7, No. 56 of the ITU Convention which call upon decisions made at any regional administrative radio conference to be in conformity with the Radio Regulations and not in conflict with the interests of the two other regions;

2. that due to its recent establishment Joint Interim Working Party 10-3-8/1 of the CCIR has not yet reported on sharing criteria between the broadcasting and maritime mobile services;

resolves

that both Conferences endeavour to minimize the potential for interregional interference, taking into consideration the following non-exhaustive list of suggestions;

1. with respect to the maritime mobile service in Region 1:

a) avoid co-channel operation with the carrier frequencies of the broadcasting channels (expected to be 1 610 kHz to 1 700 kHz at 10 kHz steps) by coast stations in areas near the regional boundary such as Iceland, the Azores, and the northwest coast of Africa,

b) use only frequencies in the 1 716 to 1 794 kHz band for ship-to-ship communications as proposed by the Kingdom of the Netherlands in Document 7 to the MM-R1 Conference,

c) consider ground-wave service only as suggested in the CCIR report to the MM-R1 Conference in draft Report AC/6,

d) use the concept to usable field strength, including the presence of radio interference in determining the field strength used to calculate the extent of service at night, so that broadcasting stations would not be considered to cause interference unless they would have a significant effect on the usable field strength, i.e. increase it by a factor such as 1 dB;

2. with respect to the broadcasting service in Region 2:

a) employ, particularly at night, the minimum power level needed to attain adequate service,

b) use appropriate methods (such as directional antennas) as required to protect Region 1 mobile services.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 65-E
1 March 1985
Original: English

COMMITTEE 6

FIRST NOTE FROM COMMITTEE 4 TO COMMITTEE 6

Subject: Technical parameters for the examination of future modifications to the Plan

Reference: Document 48

Committee 4 has agreed on the following conditions which, when met, do not require the agreement of the administration responsible for an existing assignment when a new assignment shall be entered into the Plan.

1. Vis-à-vis existing assignments in the Plan

The protection ratio for the existing assignment shall not be below that agreed for the establishment of the Plan. Its calculation shall be based on the relevant parameters used for the establishment of the Plan (see Document 60) with the following exception. The examination of a planned assignment of the maritime mobile service in the band 415 - 435 kHz or 505 - 526.5 kHz with regard to existing assignments of the aeronautical radionavigation service shall be based on propagation over sea (i.e. the data given in section 1.1 of the annex of Document 60 apply). The Board in communicating the list of countries, with which coordination has to be carried out, shall also indicate, for information only, the protection ratio achieved on the basis of propagation over land (i.e. the data given in section 2.1 of the annex to Document 60 apply).

2. Vis-à-vis assignments of permitted services

2.1 Permitted services for which this Conference is competent to establish technical criteria

The conditions given in section 1 apply.

2.2 Permitted services for which this Conference is not competent to establish technical criteria

The examination shall be based on the Technical Standards of the IFRB. The result must be a favourable or qualified favourable finding.

E. GEORGE
Chairman of Committee 4

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 66-E
4 March 1985
Original: English

COMMITTEE 3

SUMMARY RECORD

OF THE

FIRST MEETING OF COMMITTEE 3

(BUDGET CONTROL)

Wednesday, 27 February 1985, at 0900 hrs

Chairman: Mr. S.S. AL-BASHEER (Saudi Arabia)

Subjects discussed:		Document
1.	Organization of the work of Committee 3	-
2.	Terms of reference of the Committee and facilities available to delegates	DT/1
3.	Budget of the Conference	19
4.	Contributions of recognized private operating agencies and non-exempt international organizations	25, 28
5.	Financial responsibilities of administrative conferences	20

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1. Organization of the work of Committee 3

1.1 The Chairman informed the Committee that, in line with the decision by the Steering Committee, it would act for both the Region 1 Maritime Mobile Conference and the Conference for the European Maritime Area. He foresaw a second meeting (the first for the EMA) during the second week, and the final meeting early in the third week.

2. Terms of reference of the Committee and facilities available to delegates (Document DT/1)

The Committee took note of the terms of reference set out in Document DT/1.

3. Budget of the Conference (Document 19)

3.1 The Secretary of the Committee introduced the budget in Document 19, which was unusual in that it covered two Conferences, as a result of the decision by the Administrative Council. He drew attention to the proposed division of expenses, namely, two-thirds borne by the Region 1 Conference and one-third by the EMA Conference.

The budget for the two Conferences was approved.

4. Contributions of recognized private operating agencies and non-exempt international organizations (Documents 25 and 28)

4.1 The Secretary of the Committee introduced Document 25 which dealt with the provisions for defraying the expenses of Conferences and Document 28 which listed the international organizations which had asked to participate. The International Federations of Transport Workers (ITF) had been requested to indicate its class of contribution; the others, plus IATA, were exempt.

The Committee took note of the above documents.

5. Financial responsibilities of administrative conferences (Document 20)

5.1 The Secretary introduced Document 20, which had already been noted by the Plenary.

5.2 The Chairman said that he would approach the Chairmen of Committees 4 and 5 with a view to obtaining an evaluation of the additional work entailed by the decisions of the Conferences, in order to comply with the provisions of the Convention regarding the financial responsibilities of administrative conferences.

5.3 The representative of the IFRB said that, on the basis of instructions from the Administrative Council, the IFRB had despatched a Circular-letter and obtained the requirements reproduced in Document 14 and the Addendum thereto. Subsequently, after the budget had been adopted, the Board had realized that further tasks would have to be undertaken (reported in Documents 22 and 31) and that work had been done by staff normally paid from the ordinary budget of the Union to which Members in all regions contributed.

It was obviously too early for the IFRB to estimate work arising from the decisions of the Conferences, particularly in view of the complexity of the Table of Frequency Allocations and the services in Regions 2 and 3 which had to be protected whether the present Conference wished to do so or not. The IFRB would, if possible, provide estimates to the final meeting of the Budget Control Committee but otherwise would request the Committee to authorize the IFRB to prepare a separate report for submission to the July 1985 Session of the Administrative Council.

The Committee took note of Document 20 and the above statements.

The meeting rose at 0930 hrs.

The Secretary:
R. PRELAZ

The Chairman:
S.S. AL-BASHEER

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Corrigendum 1 to
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7 March 1985
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COMMITTEE 4

SUMMARY RECORD

OF THE

FIFTH MEETING OF COMMITTEE 4

(TECHNICAL)

Thursday, 28 February 1985, at 0900 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Replace section 4.1 by the following text:

"4.1 The delegate of Spain introduced Document 42 on antenna efficiency. The figures given in the document were conservative estimates. The most recent figures for his country were that in the 2 MHz band, with 30 metre high antennas, the average efficiency was 30 to 35%, while in the 500 kHz band, with 54 metre high antennas, the average efficiency was 25 to 27%, although he believed it better to consider the lower efficiency values given in Document 42."

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 67-E
6 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

FIFTH MEETING OF COMMITTEE 4

(TECHNICAL)

Thursday, 28 February 1985, at 0900 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:		Documents
1.	Report of ad hoc Group 1 (minimum usable field strength) (continued)	DL/4
2.	Approval of the note from Committee 4 to Committee 5	DT/6
3.	Technical parameters to be taken into consideration for the establishment of procedures intended for future modifications to the Plans and permitting a compatible development of the other services to which the bands are allocated (item 2.4 of the agenda)	48
4.	Conversion of e.m.r.p. to the power supplied to the antenna transmission line	31, 42

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1. Report of ad hoc Group 1 (minimum usable field strength) (continued) (Document DL/4)

1.1 The delegate of France asked what action was to be taken with regard to Document DL/4.

1.2 The Chairman replied that, in accordance with normal procedure, those values which reflected the Committee's conclusions would be incorporated in an appropriate document and forwarded to the appropriate body. In the case in point, the values in question would be inserted in paragraph 1.2 of Document DT/6.

1.3 The delegate of France said that, in his delegation's view, it was essential to specify that the margins in question were designed to provide protection for 90% of the time.

1.4 The Chairman said that discussion at the previous meeting had shown that in the majority view protection would be assured for 95% of the time. He did not propose to reopen discussion on the subject.

1.5 The delegates of the United Kingdom and the Netherlands endorsed the position taken by the Chairman.

1.6 The delegate of France reserved the right to take the matter up at a later stage on the basis of the summary records of the proceedings.

1.7 The Chairman expressed the view that Document 44 from France had already implicitly taken into account and that no further consideration was needed.

The delegate of France agreed.

2. Approval of the note from Committee 4 to Committee 5 (Document DT/6)

2.1 The delegate of the United Kingdom proposed a replacement text for paragraph 2.7.

The text, as amended by the delegate of France and the Chairman of the IFRB, was approved, as follows:

"Due to the constraints in the available computer programs the computer analysis of the Plan cannot take account of propagation over mixed land/sea paths. Paragraph 2.1 indicates that the propagation characteristics are to be predicted as for "wet ground" and thus when a significant faction of the path from an interfering transmission to the wanted coverage area is across sea water the predicted interference level may be underestimated. It will thus be necessary to examine each draft Plan to ensure that possible incompatibilities due to actual sea paths are identified. Each such case should be analyzed individually by the delegations concerned using the curves for the appropriate conductivity. Where mixed paths are concerned the Millington method described in CCIR Recommendation 368 should be used."

A cross-reference reading "see also paragraph 2.7" should be added in paragraph 2.1.

Document DT/6, as amended, was approved.

3. Technical parameters to be taken into consideration for the establishment of procedures intended for future modifications to the Plans and permitting a compatible development of the other services to which the bands are allocated (item 2.4 of the agenda) (Document 48)

3.1 The Chairman drew attention to the note from the Chairman of Committee 6 contained in Document 48.

3.2 The Chairman of the IFRB said that the first question formulated in the note concerned the definition of the limits beyond which administrations wishing to introduce modifications to the Plans would be required to coordinate with other administrations. He suggested that the criterion for triggering such coordination might be the protection ratios, possibly with a margin allowing for minor divergencies. With regard to the second question raised in the note, he said that a distinction should be drawn between those non-planned permitted services for which the Conference was competent to plan and those for which it was not competent to plan.

3.3 The Chairman suggested that, so far as the latter category of services was concerned, the IFRB Technical Standards should be applied.

3.4 The Chairman of the IFRB said that the Board's technical examinations, described in Document 31, yielded three categories of Findings: a favourable Finding if the new entry met the technical standards; a qualified favourable Finding if the standards were not met at certain hours or in certain seasons; and an unfavourable Finding if the new entry failed to meet the standards altogether. The qualified favourable Finding would correspond to a margin within which coordination might not be required although protection ratios were not fully met.

3.5 The Chairman invited the Committee to consider the following two proposed new paragraphs for inclusion in Document DT/6:

"1.8 Protection of the maritime mobile service in the bands 415 - 435 kHz and 435 - 526.5 kHz from interference from the aeronautical radionavigation service

The parameters given in sections 1.1 to 1.7 apply, assuming that the aeronautical radiobeacon signal has the same interference potential as an A1A or F1B maritime signal."

"2.8 Protection of the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz from interference from the maritime mobile service

The criteria given in 2.1 to 2.7 apply, assuming that the maritime mobile signal (A1A or F1B) has the same interference potential as an aeronautical radiobeacon signal."

3.6 He proposed that the protection ratio be taken as the trigger criterion for new assignments appearing in the Plan.

It was so agreed.

3.7 The delegate of the United Kingdom supported the text proposed in connection with modification procedures. Since modification procedures initiated after the Conference would not necessarily be constrained by computer running times, he suggested that they be handled on a case by case basis, and that calculations based on over sea propagation be used as a filter to determine when more detailed calculations were necessary.

After a discussion involving the delegates of the United Kingdom, Netherlands, Ireland and the Federal Republic of Germany and the Chairman of the IFRB, in which attention was drawn to the complexities of the calculations involved, it was agreed that for inter-service compatibility calculations would be based on over sea propagation and that the IFRB would also provide information on over land propagation.

3.8 The Chairman said it had also been agreed that for sharing criteria between assignments in the Plan and assignments to stations of non-planned (permitted) services the IFRB procedure involving favourable and qualified favourable Findings would be accepted.

4. Conversion of e.m.r.p. to the power supplied to the antenna transmission line (Documents 31, 42)

4.1 The delegate of Spain introduced Document 42 on antenna efficiency. The figures given in the document were conservative estimates. The most recent figures for his country were that in the 2 MHz band, with 30 metre high antennas, the average efficiency was 30 to 35%, while in the 500 kHz band, with 54 metre high antennas, the average efficiency was 25 to 27%. In general, he believed it better to have the lower efficiency values he proposed than those given in Document 42.

4.2 The delegate of the United Kingdom introduced a proposal which he hoped would avoid the difficulties of specifying transmitter power as such. If it must be specified for planning purposes, that should be done in terms of e.m.r.p. and he suggested a technique for calculating antenna efficiency.

Although he did not have the data to hand, he had thought it would be easy to achieve a high overall efficiency in the 2 MHz band. The 80% figure he indicated differed substantially from the figure given by the Spanish delegate.

4.3 The delegate of the Federal Republic of Germany said that his Administration's experience fell midway between that of Spain and the United Kingdom and he wondered what ground conductivity and earth resistance figures had been in Spain.

After further discussion of antenna efficiency figures between the delegates of the United Kingdom, Spain, Federal Republic of Germany, Portugal and France, the Chairman said that it was necessary to give some indication of e.m.r.p. in the Plan. An indication should also be given of transmitter output power, saying that that could be adapted if real antenna output differed from that assumed in the Plan.

He invited the delegates of the Federal Republic of Germany, Spain, the United Kingdom, Portugal, France and Netherlands to form ad hoc Working Group 2 under the chairmanship of the delegate of Italy to study the problem.

It was so agreed.

The meeting rose at 1200 hours.

The Secretary: O. VILLANYI

The Chairman: E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 4

SUMMARY RECORD

OF THE

SIXTH MEETING OF COMMITTEE 4

(TECHNICAL)

Thursday, 28 February 1985, at 1545 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Delete in section 3.1, immediately following the table:

"It was so agreed".

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 68-E
5 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

SIXTH MEETING OF COMMITTEE 4

(TECHNICAL)

Thursday, 28 February 1985, at 1545 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:	Documents
1. Report of ad hoc Group 2	-
2. Approval of the second and third Notes from Committee 4 to Committee 5	DT/8, DT/9
3. Protection of stations of the maritime mobile service in the bands 415 - 435 kHz and 505 - 526.5 kHz against interference from aeronautical radiobeacons	-

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1. Report of ad hoc Group 2

1.1 The delegate of Italy, Chairman of ad hoc Group 2, which had been set up to study the question of antenna efficiency figures, reported that the Group recommended the insertion of the following text in the Plan:

"Antenna gain (see RR 154) relative to a short vertical antenna including antenna coupling unit

2 MHz band	-4 dB
500 kHz for the maritime mobile service	-7 dB"

The Group had agreed not to establish a value for antenna gain for aeronautical radiobeacons. It had decided not to use the term "antenna efficiency" because when the Regulations referred to e.m.r.p., reference was made to antenna gain relative to a short vertical antenna, and the expression "antenna efficiency" might cause confusion. The suggested figures corresponded to 40% and 20% of antenna efficiency respectively.

1.2 The Chairman asked whether the Committee could agree to the figures and also not to make any Recommendation concerning the aeronautical radionavigation service.

It was so agreed.

1.3 The Chairman of the IFRB said that the Board had no difficulty with the figures but that Committees 5 and 6 might wish to include the new figures in the Plan as something to be notified. However, that matter might be dealt with by Committees 5 and 6.

1.4 The Chairman suggested that Document DT/6 should now be amended as a consequence of the Committee's decision. Under "1.6 Transmitting power", the text should read:

"The Plan should indicate the radiated power in terms of the e.m.r.p. It shall also indicate the transmitter power assuming an antenna gain (see RR 154) relative to a short vertical antenna including the antenna coupling unit
in the 500 kHz band: -7 dB
in the 2 MHz band: -4 dB."

It should also be stated that the values were typical ones. Moreover he suggested that the Committee should recommend to Committee 5 that the e.m.r.p. should be derived from the minimum usable field strength at the edge of the coverage area.

It was so agreed.

The Chairman suggested that under "2.6 Transmitting power", the text should read:

"The power should be indicated in terms of the e.m.r.p. The e.m.r.p. shall be derived from the minimum usable field strength at the edge of the coverage area."

It was so agreed.

2. Approval of the second and third Notes from Committee 4 to Committee 5 (Documents DT/8, DT/9)

2.1 Second Note from Committee 4 to Committee 5 (Document DT/8)

Document DT/8 was approved.

2.2 Third Note from Committee 4 to Committee 5 (Document DT/9)

2.2.1 The Chairman suggested the following amendments to Document DT/9:

Step 1 should be amended to read: "In applying the planning program (Swedish part of the computer program package, see Document 24), a frequency is selected on the basis of the technical criteria given in the Annex."

The heading of the Annex should be amended to read:

"Technical criteria to be applied for the selection of frequencies for stations of the maritime mobile service in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz"

Document DT/9, as amended, was approved.

3. Protection of stations of the maritime mobile service in the bands 415 - 435 kHz and 505 - 526.5 kHz against interference from aeronautical radiobeacons

3.1 The Chairman expressed the view that it was necessary to reconsider the decision taken at the Committee's fifth meeting on this subject, because the interference potential of the sideband components of the A2A radiobeacon signal (modulation frequency 400 Hz or 1 020 Hz, modulation depth approximately 95% resulting in sideband components of -6 dB each relative to the carrier) had also to be taken into account. He suggested the following wording for section 1.8 in Document DT/6:

"The parameters given in sections 1.1, 1.2 and 1.4 to 1.7 apply, the protection ratios shall be as follows:

Frequency separation in kHz	Protection ratio in dB			
	400 Hz aeronautical beacon		1 020 Hz aeronautical beacon	
	Wanted signal A1A	Wanted signal F1B	Wanted signal A1A	Wanted signal F1B
0	8	8	8	8
0.5	2	2	-13	-38
1.0	-19	-44	2	2
1.5	-32	-68	-19	-44
2.0	-48		-32	-68
2.5	-66		-48	
3.0			-66	

It was so agreed."

After a short discussion, it was so agreed.

The meeting rose at 1645 hours.

The Secretary:

O. VILLANYI

The Chairman:

E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Corrigendum 1 to
Document 69-E
7 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

SEVENTH MEETING OF COMMITTEE 4

(TECHNICAL)

Friday, 1 March 1985, at 1430 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Replace the heading

"SUMMARY RECORD

OF THE

SEVENTH AND LAST MEETING OF COMMITTEE 4"

by

"SUMMARY RECORD

OF THE

SEVENTH MEETING OF COMMITTEE 4".

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 69-E
5 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

SEVENTH AND LAST MEETING OF COMMITTEE 4

(TECHNICAL)

Friday, 1 March 1985, at 1430 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:	Documents
1. Consideration of the Note from the Chairman of Committee 3 to the Chairmen of Committees 4 and 5	58
2. Approval of the first Note from Committee 4 to Committee 6	DT/11
3. Approval of the summary records of Committee 4 meetings	-
4. Completion of the Committee's work	

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1. Consideration of the Note from the Chairman of Committee 3 to the Chairmen of Committees 4 and 5 (Document 58)

1.1 The Chairman said that no action was required in connection with the recommendations of Committee 3, since all the decisions taken by Committee 4 were well within the budgetary limits.

Document 58 was noted.

2. Approval of the first Note from Committee 4 to Committee 6 (Document DT/11)

The technical parameters for the examination of future modifications to the Plan set out in Document DT/11 were approved subject to the replacement of the figure "506.5 kHz" in the fifth line of paragraph 1 by the figure "526.5 kHz".

3. Approval of the summary records of Committee 4 meetings

The Chairman said that since no summary records of Committee 4 meetings had as yet been distributed, he would suggest (under provision 595 of the Nairobi Convention) that the Committee authorize him to approve the summary records on its behalf.

It was so agreed.

4. Completion of the Committee's work

4.1 The Chairman thanked the delegations for their unfailing cooperation, which had enabled the Committee to complete its work within the short period assigned to it by the Plenary. Particular thanks were due to the Chairmen of ad hoc Groups 1 and 2, to the Chairman of the IFRB and to the Secretary of Committee 4. He also commended the Secretariat staff for their dedicated work.

4.2 The delegate of the United Kingdom congratulated the Chairman on the excellent manner in which he had conducted the Committee's meetings.

The meeting rose at 1450 hours.

The Secretary:
O. VILLANYI

The Chairman:
E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 70-E
4 March 1985
Original: English

PLENARY MEETING

FIRST REPORT BY THE CHAIRMAN OF COMMITTEE 5

1. As of 28 February 1985, Committee 5 completed the work on all the issues which were necessary for the planning method to be used for the planning process and the associated computer programs. The decisions of Committee 5 contained in Document 63 as well as the decisions of Committee 4 included in Documents 60, 61 and 62 have been incorporated in the planning program offered by the Swedish Administration in Document 24. The program, as amended, was decided to be used in the planning process to treat the requirements submitted by the administrations to the Conference (Document 14 and Addenda 1 and 2).

2. Committee 5 decided to plan the primary services without, in principle, taking into account the existing assignments of the permitted services. However it was recognized that in the bands 415 to 435 kHz and 505 to 526.5 kHz the problems raised by existing assignments of the permitted services seemed to be limited and could be solved on a case-by-case basis during the planning process. Concerning the stations of the fixed and land mobile services under RR 483 in the bands 1 606.5 - 1 800 kHz and 2 107 - 2 160 kHz it was generally accepted, in principle, by the administrations concerned, that compatibility calculations concerning these stations would be based on ground-wave propagation only.

3. Concerning the planning of the permitted services in the bands where the Conference agenda has provisions to this effect, it was decided that in the band 510 - 526.5 kHz, after the planning exercise for the maritime mobile service, a second computer run will be carried out for aeronautical radiobeacons. No final decision has been taken for the planning of the maritime mobile service in the band 415 to 435 kHz, but it was generally admitted that the establishment of a plan for this service in this band would be practically impossible.

4. Committee 5 took decisions on the priority order of meeting requirements in the planning process and the channelling arrangements to be applied in the different frequency bands.

5. Some administrations reserved the right to revert on some of the above subjects, once the first results of the planning process are available.

6. Committee 5 accepted the incompatibility analysis program offered by the IFRB (Document 31) which will be used to produce incompatibility calculations between assignments included in the Plan and existing assignments recorded in the Master Register for other than planned services.

T. BØE
Chairman of Committee 5

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INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA

GENEVA, MARCH 1985

EUROP.

Document 1025-E
4 March 1985
Original: French

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

GENEVA, FEBRUARY/MARCH 1985

Document 71-E
4 March 1985
Original: French

BUDGET CONTROL COMMITTEE

Note by the Secretary-General

POSITION OF THE CONFERENCE ACCOUNTS

at 28 February 1985

I hereby submit an estimate of the Conference expenses at 28 February 1985 for the consideration of the Budget Control Committees.

The statement shows a surplus of 142,500 Swiss francs over the budget approved by the Administrative Council and adjusted to take account of changes in the common system of salaries and allowances.

R.E. BUTLER

Secretary-General

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ANNEX

Item No.	Heading	Approved budget	Adjusted budget	Credit transfers: item to item	Credit transfers: subhead to subhead	Available credits	Expenditure as at 28 February 1985: actual	committed	estimated	total
1	2	3	4	5	6	7	8	9	10	11
	I. Staff expenses									
20.401	Secretariat salaries, etc.	968,000	1,046,500			1,046,500	18,161	774,607	172,232	965,000
20.402	Common services salaries, etc.	508,000	554,500			554,500	33,606	472,755	48,139	554,500
20.403	Travel (recruitment)	80,000	80,000			80,000	6,788	41,865	11,347	60,000
20.404	Insurance	77,000	77,000			77,000	1,694	-	58,306	60,000
		1,633,000	1,758,000			1,758,000	60,249	1,289,227	290,024	1,639,500
	II. Travel expenses	-	-							
	III. Premises and equipment									
20.431	Premises, furniture, machines	32,000	32,000	+8,000		40,000	-	39,600	400	40,000
20.432	Document production	142,000	142,000	-8,000		134,000	8,677	1,647	109,676	120,000
20.433	Office supplies and overheads	20,000	20,000			20,000	4,053	-	15,947	20,000
20.434	Postage, telephone calls, telegrams	30,000	30,000			30,000	668	-	29,332	30,000
20.435	Technical installations	5,000	5,000			5,000	-	-	-	-
20.436	Sundry and unforeseen	10,000	10,000			10,000	-	-	10,000	10,000
		239,000	239,000			239,000	13,398	41,247	165,355	220,000
	IV. Other expenses									
20.441	Interest credited to the ordinary budget	35,000	35,000			35,000	-	-	30,000	30,000
	V. Final Acts									
20.451	Final Acts of the two Conferences	86,000	86,000			86,000	-	-	86,000	86,000
	Total	1,993,000	2,118,000	-	-	2,118,000	73,647	1,330,474	571,379	1,975,500

1) Budget including additional credits to take account of changes in the common system of staff salaries of the United Nations.

REGION 1

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GENEVA, FEBRUARY/MARCH 1985

Document 72-E
4 March 1985
Original: French

COMMITTEE 6

France

The French Administration proposes that the following provisions be inserted:

- either in the Agreement, in an additional chapter which could be titled "Special operating conditions";

- or as a preamble to the Plan:

"1. Coast and ship stations using F1B shall not emit off-keying signals for longer than /20 seconds/ after the end of transmission.

2. When propagation conditions so permit, bilateral links may be established between a coast station and a ship station situated outside the coverage area of the coast station. No such link may be established, however, if the ship is inside the coverage area of another station using the same frequency (the "coverage area" means the area used for the establishment of the Plan)."

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REGION 1

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GENEVA, FEBRUARY/MARCH 1985

Document 73-E
5 March 1985
Original: English

COMMITTEE 5

SUMMARY RECORD

OF THE

FOURTH MEETING OF COMMITTEE 5

(PLANNING)

Thursday, 28 February 1985, at 0900 hrs and at 1400 hrs

Chairman: Mr. T. BØE (Norway)

Subjects discussed:		Documents
1.	Report by the Chairman of ad hoc Group 5-1 and decisions to be taken on related matters	52
2.	The use of the same frequency for A1A and F1B emission in the 500 kHz band	15
3.	Use of the frequency 425 kHz	4, 6, 7, 8, 10, 13, 15, 32, 43
4.	Organization of the Planning Groups	DT/7
5.	Channels for digital selective calling	-
6.	Channelling arrangements in the band 435 - 526.5 kHz	-
7.	Report by the Chairman of Committee 5 to the Plenary Meeting	DT/5
8.	Use of the 505 - 510 kHz band (continued)	-

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1. Report by the Chairman of ad hoc Group 5-1 and decisions to be taken on related matters (Document 52)

1.1 The Chairman of ad hoc Group 5-1 introduced the Group's report contained in Document 52.

1.2 The recommendations in paragraph 2.1.1 were approved with the deletion of the words "to coast stations having or expecting high traffic" in sub-paragraph 2.

1.3 The Chairman said that paragraph 2.1.3 would be dealt with under a separate agenda item.

1.4 The delegate of Spain said that he could not accept the order of priority laid down in paragraph 2.2.1 as he thought that the highest priority should be given to the requirements submitted to the IFRB. The next item in order of priority should be to take care of the requirement of frequencies under Resolution No. 38 and lastly, if possible, frequencies in the International Frequency List should be considered. Traffic statistics, which were available to all, should always be borne in mind. An important matter of principle was involved in establishing an order of priority in the planning process in connection with the 2 MHz band.

1.5 The delegate of Sweden said that it would be simpler to base the order of priority on traffic needs as reflected in statistics or established by some other means, but the number of requirements was too great for any system to be devised which would satisfy every administration. It was therefore necessary to establish some order of priority and he thought that the method laid down in paragraph 2.2.1 was the best available.

1.6 The delegate of the Netherlands agreed that some order of priority was necessary although he felt that such an order should not be established at the outset of the Conference.

1.7 The delegate of Spain said that any plan should satisfy the requirements of the majority of countries, including those which did not possess any frequencies at all. Since, in his view, all requirements should be accorded equal treatment, and there was no need to mention "new requirements", he was obliged to maintain his reservation with regard to paragraph 2.2.1 and the right to revert to the matter in Plenary so that his point would appear in the Final Acts.

1.8 With respect to paragraph 2.2.1, the delegate of Denmark said that he would bow to majority opinion and withdraw his reservation.

1.9 The delegate of Finland, supported by the delegate of Norway, felt that the second part of the sentence went too far and he would prefer it to be reworded to the effect that stations for official correspondence should not be disregarded in the planning process.

1.10 The delegate of France said that he maintained his reservation. Perhaps no night-time protection could be afforded during the planning process in view of the large number of requirements, but his delegation still opposed the principle and it would be preferable to wait until the computers had provided full data before reaching any decision. No distinction should be made between frequencies used for public and for official correspondence.

1.11 The delegate of Sweden pointed out that the number of requirements which corresponded to existing assignments both in the bands to be planned and in those covered by Resolution No. 38 totalled about 250 for 55 channels, which worked out at an average of four assignments per channel. With night-time protection, it would not be possible to reuse the same channel, for instance, in most of Europe, and it would therefore be impossible to accommodate all 250 requirements in the 55 channels. It would also be necessary to sub-divide the order of priority in paragraph 2.2.1 1) into some sort subsidiary orders of priority, and that would not be feasible. Furthermore, all the requirements would be far from being satisfied.

With day-time protection, planning would be tight. The only relief was that some of the requirements covered Region 1 and not only Europe, although most of the requirements were for European countries and he foresaw difficulties in Central Europe.

On the basis of a study of Document 14 he had arrived at a figure of 250 assignments. It was clear that the requirements could not be distributed smoothly, even if the order of priority set out in paragraph 2.2.1 was followed in the planning process.

1.12 The delegate of Spain said that he understood the method of calculation which yielded a total of 250 assignments. However, that did not represent the total number of all requirements which was of course infinitely greater.

1.13 The delegate of Sweden said that the total number of requirements in that band for telephony was 960.

1.14 The delegate of France pointed out that there was an intermediate stage between absolute night-time protection and none at all. He therefore suggested rewording the first clause of the sentence in paragraph 2.2.2.

1.15 The Chairman noted no support for the French proposal and put forward an alternative text, to read:

> "no night-time protection should be accorded during the planning process. No special treatment should be given to frequencies used for official correspondence and those used for public correspondence.".

Paragraph 2.2.2 was approved as amended.

1.16 The delegate of France maintained his reservation.

1.17 The delegate of France said, with respect to paragraph 2.3, that his Administration's proposals in Document 12 had been made to minimize the cost of changing the quartz crystals used by many vessels. Those costs could be difficult to bear, especially for private owners of fishing boats, of which his country had many. While recognizing that frequency changes would be necessary, it was unthinkable not to attempt to minimize the costs. Some delegates had said that the proposals could not be considered in view of the need to prepare a plan quickly, using a computer program which was not equipped to take account of the restrictions involved. But despite the possible complications, consideration of ways of reducing the cost could not be ignored.

He wished the reasons advanced in the ad hoc Group by those who had opposed his country's proposals also to be recorded.

1.18 The delegate of Madagascar supported the French position, emphasizing that the financial implications of frequency changes, which occurred quite often, were particularly significant for developing countries. If the planning process could not take account of the possibility of maintaining existing frequencies along the lines of the French proposals, he reserved his right to revert to the issue.

The Chairman asked if paragraph 2.3 could be approved, subject to the reservations expressed being recorded.

1.19 The delegate of Denmark said that his position had been based on the need to preserve flexibility in the planning process which would not be possible if certain frequencies had to be reserved for particular groups. Danish private fishing-boat owners would also find frqeuency changes costly but adding constraints to the planning process would lead to inefficient use for the spectrum and diminished protection. He was therefore against the proposals in Document 12.

1.20 The Chairman concluded that the proposals in Document 12 should not be taken into account.

1.21 The delegates of France and of Madagascar reserved their right to revert to the issue at a later stage.

1.22 The Chairman of ad hoc Group 5-1 explained that the Group's view of the provision contained in square brackets at the end of paragraph 3 could not be ascertained in the time available. Speaking as the delegate of the Federal Republic of Germany, he proposed its deletion.

1.23 Following a lengthy discussion in which the delegates of France, the United Kingdom, Spain and Saudi Arabia and the representative of the IFRB took part, it was agreed to amend the final sentence of paragraph 3 as follows:

> "Administrations could use appropriate ship station frequencies outside the bands mentioned in Appendix 2 of Resolution No. 704, after notification to and conclusions of the IFRB.".

1.24 The delegate of the Netherlands said that the preceding sentence of paragraph 3 should provide not only that adjacent coast station channels would not be assigned to geographically adjacent coast stations but also that use of the same ship station frequencies in adjacent or overlapping service areas should be avoided.

1.25 The delegate of Sweden said that the sentence covered only what could be achieved with the computer planning program available. That program could plan coast station frequencies but could not analyze the interference patterns of ship station frequencies.

1.26 The Chairman proposed that the sentence should be left as it was, on the understanding that the valid point raised by the delegate of the Netherlands would be addressed when the first computer print-out became available.

It was so agreed.

1.27 The Chairman said that since there was no possibility of drawing up further guidelines for use of the computer program apart from those already covered, he proposed that the Committee should simply take note of paragraph 4 and thus conclude its consideration of Document 52.

1.28 The delegate of the Netherlands said that the report made no mention of the ad hoc Group's conclusions on the order of priorities for treating NBDP requirements in the 2 MHz band. A further subject which had not been addressed in the Group or by the Committee was how to proceed in planning for the aeronautical radionavigation service beacons.

1.29 The Chairman of ad hoc Group 5-1 said that since the problems of NBDP were not as great as those of radiotelephony, his understanding was that the same solutions would suffice for both categories.

1.30 The delegate of Finland said that notes of the Group's proceedings showed agreement that it would be appropriate to approach NBDP requriements in the 2 MHz band in the manner agreed for the 500 kHz band, and that there should be no provision for night-time protection.

1.31 The Chairman said that if he heard no objection he would take it that the Committee endorsed that view.

It was so agreed.

1.32 The delegate of the Nethelands pointed out that it remained to be decided whether to set an order of priorities for requirements for aeronautical radiobeacons and whether to plan for day-time and night-time protection or not.

1.33 The Chairman said that the second issue was already covered by the Radio Regulations; the only question was whether it was necessary to establish any order of priority for requirements for the first computer run.

1.34 The delegate of the Netherlands and the delegate of Sweden said that in their view it was not necessary.

1.35 The Chairman said that since there had been no request for priorities to be established, he would take it that the Committee agreed there should be none.

1.36 The delegate of Finland asked if a computer planning run for aeronautical radiobeacon requirements could be performed after that for the maritime mobile service, in the band 505 - 526.5 kHz.

1.37 The delegate of Sweden said that it could but that the outcome could not be final in view of the probable need for changes to the maritime mobile service plan. He reminded the Committee that when the program was to be run a list of blocked frequencies (as described in Document 24, Appendix 2) would be required. An important question was whether the 505 - 510 kHz band could be used for aeronautical radionavigation in the light of the fact that 510.5 kHz was the starting frequency in the band to be planned for the maritime mobile service.

1.38 The representative of the IFRB said that that point was covered by paragraph 7.2 of Document 22.

1.39 In reply to a question from the delegate of France on arrangements for equitable sharing of the 27 ship stations proposed for the 2 MHz radiotelephony band, the delegate of Sweden said that, as set out in proposal NOR/S/15/13 in Document 15, each of those ship stations would be paired with two coast stations.

1.40 The delegate of France said he was in fact more concerned with the equitable sharing of those 27 channels between countries; however, he would pursue the matter later following the first run of the planning exercise.

2. The use of the same frequency for A1A and F1B emissions in the 500 kHz band (Document 15)

2.1 The delegate of Norway drew the Committee's attention to proposal NOR/S/15/11 in Document 15, which outlined a procedure for joint planning of A1A and F1B emissions in the 500 kHz band. In that way, any frequency intended for A1A emission in the immediate future could later, in response to traffic demand, be transferred to F1B operation without causing difficulties to ship or coast stations. Furthermore, since F1B gave better coverage than A1A, as his Administration could amply prove from its experience with the NAVTEX system, there would be a reduction in the number of coast stations requiring F1B channels.

2.2 The delegates of the Netherlands, Sweden and France strongly supported the use of the same frequency for A1A and F1B emissions in the 500 kHz band, especially in view of the fact that A1A operation would be phased out within the lifetime of the Plan now in preparation.

2.3 In response to an objection to frequency sharing by the delegate of Greece, the delegate of Finland proposed as a compromise that when frequencies were being assigned to coast stations, the first frequency should be protected in accordance with A1A criteria; the second and subsequent frquencies assigned to the same coast station should only be protected using F1B criteria.

2.4 The delegate of the Federal Republic of Germany said that another compromise might be to stipulate that the first channel to be assigned to a coast station should be for A1A use only; any second or additional channels assigned to that station shuold be for use by either A1A or F1B.

2.5 The delegate of Greece, supported by the delegate of Spain and the representative of the International Transport Workers' Federation, noted that Committee 4 had decideed on two different protection ratios for A1A and F1B emissions and said that the proposal for frequency sharing would be in contradiction with that conclusion.

The meeting was suspended at 1200 hours and resumed at 1400 hours.

2.6 The Chairman observed that, since the Finnish proposal had not been commented on, it perhaps met with general approval.

2.7 The delegate of Greece said that the proposal would lead to the anomalous situation in which the first channel assigned, whether used for NBDP or for Morse telegraphy, would be given the protection ratio for Morse telegraphy, which the additional channel, whatever its use, would have the NBDP protection ratio.

2.8 The delegate of Sweden explained that, while application of F1B protection to additional frquencies, some using A1A and others F1B, would indeed give stations operating Morse telegraphy somewhat reduced protection from stations on adjacent channels, in practice the first frequency could always be used for traffic with ships in exceptionally heavy traffic areas. The Finnish compromise was thus probably the best that could be achieved at that stage.

2.9 The delegate of Finland added that, whereas most coast stations would continue to use A1A transmission for some years to come, very few of them needed an extra A1A channel for heavy traffic.

2.10 In reply to the delegate of Greece, the Chairman said that there would not be time to identify the stations which really needed an additional A1A channel.

After some further discussion, the Finnish proposal was approved, subject to a reservation by the Greek delegation.

3. Use of the frequency 425 kHz (Documents 4, 6, 7, 8, 10, 13, 15, 32, 43)

3.1 The delegate of the Netherlands said that frequency 425 kHz should be deleted from RR 4237, since its maintenance would severely hamper the planning exercise and the implementation of the Plan. Since 425 kHz was a world-wide frequency, its deletion from the Radio Regulations could not be decided upon by a Regional Conference, and his Administration had therefore submitted a draft Recommendation (HOL/7/3) to the effect that the necessary action should be taken by WARC-MOB-87. The replacement frequency that would be needed for Morse radiotelgraphy could be taken from the band 450 - 461 kHz set aside for simplex operation in Appendix 1 to Resolution No. 704.

3.2 The delegates of the United Kingdom, Spain, Sweden, Kenya, Greece and Yugoslavia said that their Administrations had made similar proposals.

3.3 In reply to a question by the delegate of the USSR, the Chairman said that the matter of the replacement frequency should be discussed further and that a Resolution on it could be prepared during the following week.

The Netherlands proposal was approved.

4. Organization of Planning Groups (Document DT/7)

It was decided to set up Planning Group 5A under the chairmanship of Mr. A. Toumi (Morocco) and Planning Group 5B under the chairmanship of Mr. K. Björnsjö (Sweden), with the terms of reference set out in Document DT/7, subject to the addition of the words "and Committee 4" after "Committee 5" in the first line of the terms of reference of each Group.

5. Channels for digital selective calling (DSC)

5.1 The delegate of Finland said that, since some administrations had submitted individual requirements for DSC frequencies in the maritime mobile service bands, his delegation would like to know whether the CCIR had come to any conclusions about the number of channels required for international and national DSC use.

5.2 The representative of the CCIR said that CCIR Interim Working Party 8/10 had done extensive work on the subject and that the latest information appeared in the revision of Report 908 approved by Study Group 8 at its last interim meeting. The IWP had arrived at the number of channels required on the basis of several assumptions. First of all, it had been assumed that the density of MF traffic handled by North European coast stations was the highest in the world and that meeting the channel requirements for that area would permit satisfaction of MF requirements in other regions; account had therefore been taken of the predicted number of MF communications to be handled

per hour of a typical 24-hour period in 1990, based on the combined traffic of the Federal Republic of Germany, Belgium, Denmark, the Netherlands, Norway, Sweden, the United Kingdom and 50% of the USSR. It had further been assumed that one international channel would be needed in each of the bands 500 kHz and 2 MHz. The third assumption had been that most countries allowed ships to use the selective calling system inherent in teleprinter equipment designed in accordance with CCIR Recommendation 476, and the Study Group had therefore taken account of only 20% of the NBDP channels required. On the basis of those figures, it had been concluded that one international channel and three national channels in the 500 kHz band and one international channel and eight national channels in the 2 MHz band would be needed in 1990.

5.3 The delegate of Finland said that that information should be referred to the appropriate Planning Group.

5.4 In reply to the delegate of France, the representative of the CCIR said that the use of F1B for DSC and NBDP had not been taken into account in the calculations, which had been based on information from administrations concerning the use of A1A transmission.

5.5 The delegate of Sweden drew attention to the proposal on page 6 of Document 15 that channels 229-236 should be reserved for national DSC. Since that proposal did not conflict with the frequency 2 170.5 kHz (international channel), Committee 5 might wish to approve it.

The proposal was approved.

6. Channelling arrangements in the band 435 - 526.5 kHz

6.1 The delegate of the Netherlands, introducing the channelling arrangements set out on pages 11 and 12 of Document 7, laid emphasis on the proposal that the coast station frequencies 440 kHz and 519 kHz should be left out of the planning process and should be set aside as world-wide frequencies to be used in pairing arrangements with world-wide frequencies 480 kHz and 468 kHz, respectively.

6.2 The delegate of Sweden said that the channelling arrangements proposed on pages 4 and 5 of Document 15 provided for the inclusion of frequencies 440 kHz and 519 kHz in the planning exercise, so that the number of available channels could be increased to 57. Frequency 440 kHz would thus be paired with 461 kHz in channel 10 and frequency 519 kHz, with 460.5 kHz in channel 43. In the footnote on page 5 the word "coast" should be changed to "ship".

6.3 The delegate of Greece supported the Swedish proposal and suggested that it should be supplemented by his Administration's proposal GRC/4/3, which provided that a coast station had the right to transmit on its own assigned frequency (paired) even when it communicated with a ship station transmitting on one of the universal frequencies for Morse telegraphy.

6.4 The delegates of the United Kingdom, Finland and France supported the Swedish proposal with the Greek amendment and the delegate of the Netherlands said that he too could accept that proposal, while stressing the need for great care in choosing the optimum replacement international frequencies.

The Swedish proposal was approved as amended.

7. Report by the Chairman of Committee 5 to the Plenary Meeting (Document DT/5)

7.1 The delegates of Sweden, the Federal Republic of Germany and Greece suggested that the words "permitted service requirements" in the fourth line should be replaced by "existing assignments of the permitted service".

7.2 The delegate of Denmark said that informal discussions between a number of administrations concerning the problem of fixed and land mobile services under RR 483 had resulted in a proposal to replace the last sentence of the first paragraph by an alternative text.

7.3 The delegate of the Netherlands said he could support the amendment on the understanding that the text would be examined carefully and reviewed at a later stage.

Document DT/5 was approved as amended, on that understanding (see Document DT/10 for the amended text).

7.4 The representative of the IFRB said that he was not entirely satisfied with the new text and hoped it would be discussed again in Committee 5.

8. Use of the 505 - 510 kHz band (continued)

8.1 The delegate of Sweden requested clarification of the prohibition on the use of frequencies between 490 kHz and 510 kHz for other than distress and safety purposes. In particular, he wondered whether frequencies between 505 kHz and 510 kHz could be used for inland aeronautical beacons although they were prohibited for the maritime mobile service.

8.2 The representative of the IFRB pointed out that the provisions of RR 3018 strongly forbade such use. The present Conference was therefore not competent to use those frequencies in planning.

8.3 The delegate of Finland suggested that they could perhaps be used in planning in preparation for the forthcoming WARC for the Mobile Services which could decide to use them. He understood that in 1979 the decision had been made to reduce the guard band around 500 kHz and that the 1983 Mobile Services WARC had decided to assign the 490 kHz frequency to the digital selective calling system.

8.4 The delegate of the USSR pointed out that any planning which used those frequencies might prejudice the discussions of the 1987 Conference. The present Conference should therefore comply with RR 3018.

8.5 The Chairman suggested that the Committee should accept the clarification by the representative of the IFRB and retain the guard band around 500 kHz as laid down in RR 3018.

It was so decided.

The meeting rose at 1705 hours.

The Secretary: G. KOVACS

The Chairman: T. BØE

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA
GENEVA, MARCH 1985

EUROP.

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 74-E
4 March 1985
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COMMITTEE 3

Note by the Secretary-General

STATEMENT OF EXPENSES INCURRED FOR THE PREPARATORY WORK BY THE IFRB FOR RARC-MM-R1 AND RARC-EMA

At the request of the International Frequency Registration Board, I transmit the attached IFRB report for consideration by Committee 3.

R.E. BUTLER
Secretary-General

Annex: 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX

Statement on expenses incurred for the preparatory work by the IFRB for RARC-MM-R1 and RARC-EMA

Documents No. MM-R1/14, MM-R1/14 (Add.1), EMA-R1/1006 and EMA-R1/1006 (Add.1) indicate the requirements submitted by administrations in response to IFRB Circular-letters Nos. 544 and 545, both of 8 September 1983. Document No. MM-R1/31/EMA/1017 explains the software developed by the IFRB for use by the two Conferences.

2. As was stated verbally by the representative of the IFRB in the first meeting of Committee 3, the first task, namely collection of requirements and their publication, was itself voluminous and needed the use of computerized methods of data capture. The second task, relating to the development of software programmes for planning and incompatibility analyses, was not foreseen to be carried out by the Board in the Agendas of the two Conferences. However, they were developed by the IFRB since it became apparent to the Board that the Conferences would find themselves in a difficult situation if the software programmes were not developed in advance.

3. Both of these tasks involved investment of important efforts (human and material) in the IFRB preparatory work which the Board had to find from the sources available to it from Sections 2 and 3 of the ITU budget relating to the regular staff at the ITU headquarters.

4. Taking account of the fact that Committee 5 of RARC-MM-R1 has accepted the use of the software package developed by the IFRB for its work, Committee 3 of the RARC-MM-R1 is requested to give due consideration to the inclusion of a token sum of Sw.Frs.30,000.- in the budget of the Conference, which could be considered as representing rental of some terminals for data capture and purchase of one microcomputer with hard disk and printer.

5. If RARC-EMA finds that the software package developed by the IFRB is useful to that Conference, then the expenses mentioned above could be shared in the proportion suggested in the Document No. MM-R1/19/EMA/1010.

6. The Board wishes to emphasize the fact that this Note represents expenses already incurred and does not constitute a reply to Document No. MM-R1/58 as to the budgetary impact of the activities relating to the implementation of the decisions of the Conferences.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 75-E
5 March 1985
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COMMITTEE 5

FIRST REPORT FROM WORKING GROUP 5B

1. Introduction

In accordance with the terms of reference for Working Group 5B contained in Document 63, first planning exercises have been performed for the maritime mobile service in the bands:

- 1 606.5 - 1 625 kHz (F1B);
- 1 635 - 1 800 kHz and 2 045 - 2 160 kHz (J3E).

2. Planning in the band 1 606.5 - 1 625 kHz (F1B)

The planning in this band was carried out by a Planning Group 5B-1 with Mr. K. Björnsjö, Sweden as Chairman.

Almost all requirements that were taken into account could be assigned frequencies. There were eight requirements that could not be satisfied. All of them correspond to a third frequency or a frequency of higher order at the coast station in question.

One difficulty encountered was to select relevant requirements in some cases. The Group had in some cases to take decisions whether a requirement would be valid for the band at 1 600 kHz or should be transferred to the Planning Group for the band at 500 kHz.

Requirements for separate frequencies for digital selective calling (DSC) have not been included since Committee 5 has decided to reserve eight of the channels exclusively for DSC. These eight channels have not been included in the computer planning.

3. Planning in the bands 1 635 - 1 800 kHz and 2 045 - 2 160 kHz (J3E)

The planning for radiotelegraphy in these bands was carried out in Planning Group 5B-2 under the chairmanship of Mr. S. Hess, Denmark.

In the first computer run it was possible to satisfy all but 14 of the requirements corresponding to replacement frequencies for the purpose of Resolution No. 38 and requirements corresponding to assignments currently used within the bands to be planned. In a second run requirements corresponding to one frequency per coast station not having existing assignments have been treated.

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During the planning exercise it has become obvious that the channelling scheme would have to be modified in such a way that the ship station transmit frequencies would have to be rearranged in order to avoid that at a coast station having been assigned two adjacent channels the ship stations would have to use the one and same frequency.

There has not been sufficient time to try to accommodate further requirements in the plan so far.

4. Final remark

Delegations are invited to inform the Planning Group Chairmen of any inconsistencies between the requirements that have been submitted and the lists that result from the planning exercises.

.. ..
K. BJØRNSJØ
Chairman of Working Group 5B

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 6

REPORT OF THE CHAIRMAN OF WORKING GROUP 6B TO COMMITTEE 6

In accordance with its terms of reference, Working Group 6B has adopted the following texts which it submits for consideration by Committee 6:

Annex 1: Draft Agreement (excluding Articles on modification procedures and notification)

Annex 2: Three draft Recommendations on the channelling arrangements

M.J. BATES
Chairman of Working Group 6B

Annexes: 2

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX 1

DRAFT

REGIONAL AGREEMENT
CONCERNING THE MF MARITIME MOBILE AND
AERONAUTICAL RADIONAVIGTION SERVICES
(REGION 1)
Geneva, 1985

Preamble

The delegates of the following Members of the International Telecommunication Union:

meeting in Geneva for a Regional Administrative Radio Conference convened under the terms of Article 7 of the International Telecommunication Convention, Nairobi, 1982, have adopted subject to the approval of the competent authorities of their respective countries the following provisions relating to the maritime mobile service and the aeronautical radionavigation (radiobeacon) service in Region 1.

ARTICLE 1

Definitions

1. For the purpose of this Agreement, the following terms shall have the meanings defined below:

Union: The International Telecommunication Union;

Secretary-General: The Secretary-General of the Union;

ICAO: The International Civil Aviation Organization;

IFRB: The International Frequency Registration Board;

CCIR: The International Radio Consultative Committee;

Convention: The International Telecommunication Convention, Nairobi, 1982;

Radio Regulations: The Radio Regulations, Geneva 1979, as revised by the WARC-MOB-83, annexed to the Convention;

Region 1: The geographical area defined in No. 393 of the Radio Regulations;

Agreement: The whole of this Agreement including its Annexes and Appendices;

Plans: The Plans forming Annexes [A to F] to this Agreement and their Appendices;

Contracting Member: Any Member of the Union which has approved or acceded to this Agreement;

Administration: Any governmental department or service responsible for discharging the obligations undertaken in the International Telecommunication Convention and the Radio Regulations;

Pairing (as applied to the Plans for the maritime mobile service): A method of assigning two frequencies, one to be used by a coast station for transmission when communicating with ships, the other to be assigned to the same coast station for reception, to be used by ships for transmission when communicating with that coast station;

Assignment in conformity with the Agreement: Any frequency assignment appearing in any of the Plans or any frequency assignment for which the procedure of Article 4 has been successfully applied.

ARTICLE 2

Frequency Bands

2. The provisions of this Agreement apply in Region 1 to the following services in the bands allocated to them under Article 8 of the Radio Regulations:

a) 415 - 435 kHz allocated to the aeronautical radionavigation service on a primary basis and to the maritime mobile service on a permitted basis;

b) 435 - 526.5 kHz allocated to the maritime mobile service on a primary basis;

c) 505 - 526.5 kHz allocated to the aeronautical radionavigation service on a permitted basis;

d) 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz allocated to the maritime mobile service on a primary basis.

These provisions also apply to:

e) Fixed and land mobile services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are allocated on a permitted basis (primary in the countries listed in No. 483 of the Radio Regulations);

f) the radiodetermination service, after successful application of the procedure of Article 14 (No. 484 of the Radio Regulations).

ARTICLE 3

Execution of this Agreement

3. The Contracting Members shall adopt for their stations in the aeronautical radionavigation service operating in Region 1 in the frequency bands referred to in this Agreement the characteristics specified in the Plans at Annexes [A to D] and in their Appendices.

4. The Contracting Members shall adopt for their stations in the maritime mobile service operating in Region 1 in the frequency bands referred to in this Agreement the characteristics specified in the Plans at Annexes [B, C, E and F] and in their Appendices.

5. The Contracting Members shall not bring assignments complying with the Plans into use, modify the technical characteristics of stations specified in the Plans, or bring new stations into use, except under the conditions specified in Articles 4 and 5 of this Agreement.

6. When assigning frequencies to stations of primary and permitted services in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz, Contracting Members shall take account of the frequency assignments to stations of the maritime mobile service which are in conformity with the Agreement or for which the modification procedure contained in Article 4 has been initiated.

7. The Contracting Members shall endeavour to coordinate the necessary action to reduce any harmful interference that may result from the application of the Agreement.

ARTICLES 4, 5 AND 6

To be prepared by Working Group 6A

ARTICLE 7

Special Arrangements

[ ] In addition to the procedures provided for in Article 4 of this Agreement and to facilitate their application with a view to improving the utilization of the Plans, Contracting Members may conclude special arrangements in accordance with the relevant provisions of the Convention and of the Radio Regulations.

ARTICLE 8

Scope of Application of this Agreement

[ ] This Agreement shall bind Contracting Members in their relations with one another but shall not bind those Members with respect to non-contracting countries.

[ ] If a Contracting Member makes reservations with regard to any provision of this Agreement, other Contracting Members shall be free to disregard that provision in their relations with the Contracting Member which has made such reservations.

ARTICLE 9

Approval of this Agreement

[ ] This Agreement shall be subject to approval by the competent authorities of the countries on behalf of which the Agreement was signed. Instruments of approval shall be deposited, in as short a time as possible, with the Secretary-General, who shall inform all the Members of the Union.

ARTICLE 10

Accession to this Agreement

[ ] Any Member of the Union in Region 1 which has not signed this Agreement may accede thereto at any time. Such accession shall extend to the Plans as they stand at the time of the accession and shall be made without reservation. The instruments of accession shall be deposited with the Secretary-General who shall promptly inform all the Members of the Union. This Agreement shall enter into force for each Member acceding to this Agreement after the date of its entry into force on the date of the deposit by such a Member of its instrument of accession.

ARTICLE 11

Termination of Participation in this Agreement

[ ] Any Contracting Member shall have the right at any time to terminate its participation in this Agreement by a notification sent to the Secretary-General who shall inform all the Members of the Union.

[ ] Such termination of participation shall take effect after a period of one year from the date of receipt by the Secretary-General of the said notification.

[ ] On the date on which the termination of participation becomes effective, the IFRB shall delete from the Plans the assignments entered in the name of the Member concerned.

ARTICLE 12

Revision of the Agreement

[ ] No revision of this Agreement shall be undertaken except by a competent administrative radio conference of the Members of the Union in Region 1, convened in accordance with the procedure laid down in the Convention.

ARTICLE 13

Replacement of Copenhagen Plan, 1948

[ ] Insofar as the Contracting Members of the European Regional Convention for the Maritime Mobile Radio Service, Copenhagen, 1948, are concerned, the Plan annexed to that Convention is replaced by the Plans annexed to this Agreement.

ARTICLE 14

Effective Date of this Agreement

[ ] This Agreement shall enter into force on [ ] at 0001 hours UTC.

In witness whereof the delegations of Members of the Union mentioned above have, on behalf of their respective competent authorities, signed this Agreement in a single copy in the French, English and Spanish languages in which, in case of dispute, the French text shall be authentic. This copy shall remain deposited in the archives of the Union. The Secretary-General shall forward one certified copy to each Member in Region 1. Done at Geneva, .. March, 1985.

ANNEX 2

DRAFT RECOMMENDATION No. COM6/A (MM)

Relating to the Channelling Arrangement for the Maritime Mobile Service in the Frequency Band 435 - 526.5 kHz in Region 1

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that this Conference has established an agreement and associated frequency plan for the frequency band 435 - 526.5 kHz for the maritime mobile service;

b) that the Tables of Recommended Assignable Frequencies appearing in Appendix 1 to Resolution No. 704 (MOB-83) were used as a basis for the planning of this band;

c) that in Resolution No. 704 (MOB-83) the Administrative Council is invited to place on the agenda of the WARC for the mobile services planned for 1987 an item covering the inclusion in the Radio Regulations of Appendices containing the channelling arrangements in the band referred to above;

d) that it is necessary to have a regulatory framework in the Radio Regulations concerning the use in Region 1 of the frequency band 435 - 526.5 kHz;

noting

that it is within the terms of reference of this Conference to establish the final texts of an appendix to the Radio Regulations containing the channelling arrangement in Appendix 1 to Resolution No. 704 (MOB-83) with the view to the later inclusion in the Radio Regulations;

recommends

that the Table of Frequencies appearing in the annex to this Recommendation concerning the frequency band 435 - 526.5 kHz is included in the Radio Regulations as an appendix;

invites the Administrative Council

to ensure that the Conference for the mobile services planned for 1987 will be competent to take a decision to include this appendix in the Radio Regulations.

ANNEX TO RECOMMENDATION No. COM6/A

Channelling of the frequency bands between 435 - 526.5 kHz for the Maritime Mobile Service

[To be developed by Committee 5.]

DRAFT RECOMMENDATION No. COM6/B (MM)

Relating to the Channelling Arrangement for the Maritime Mobile Service in the Frequency Bands 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz in Region 1

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that this Conference has established an agreement and associated frequency plans for the frequency bands 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz for narrow-band direct printing and digital selective calling in the maritime mobile service in Region 1;

b) that the Tables of Recommended Assignable Frequencies appearing in Appendix 2 to Resolution 704 (MOB-83) were used as a basis for the planning of these bands;

c) that in Resolution No. 704 (MOB-83) the Administrative Council is invited to place on the agenda of the WARC for the mobile services planned for 1987 an item covering the inclusion in the Radio Regulations of Appendices containing the channelling arrangements in the bands referred to above;

d) that it is necessary to have a regulatory framework in the Radio Regulations concerning the use in Region 1 of the frequency bands 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz;

noting

that it is within the terms of reference of this Conference to establish the final texts of appendices to the Radio Regulations containing the channelling arrangements in Appendices 1 and 2 to Resolution No. 704 (MOB-83) with the view to their later inclusion in the Radio Regulations;

recommends

that the Table of Frequencies appearing in the annex to this Recommendation concerning the frequency bands 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz is included in the Radio Regulations as an appendix;

invites the Administrative Council

to ensure that the Conference for the mobile services planned for 1987 will be competent to take a decision to include this appendix in the Radio Regulations.

ANNEX TO RECOMMENDATION No. COM6/B

Channelling of the frequency bands 1 606.5 - 1 625 kHz and 2 142 - 2 160 kHz used for narrow-band direct-printing telegraphy by the Maritime Mobile Service

[To be developed by Committee 5.]

DRAFT RECOMMENDATION NO. COM6/C (MM)

Relating to the Channelling Arrangement for the Maritime Mobile Service in the Frequency Bands 1 635 - 1 800 kHz and 2 045 - 2 142 kHz in Region 1

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that this Conference has established an agreement and associated frequency plans for the frequency bands 1 635 - 1 800 kHz and 2 045 - 2 142 kHz for single sideband radiotelephony in the maritime mobile service in Region 1;

b) that the Tables of Recommended Assignable Frequencies appearing in Appendix 2 to Resolution No. 704 (MOB-83) were used as a basis for the planning of these bands;

c) that in Resolution No. 704 (MOB-83) the Administrative Council is invited to place on the agenda of the WARC for the mobile services planned for 1987 an item covering the inclusion in the Radio Regulations of Appendices containing the channelling arrangements in the bands referred to above;

d) that it is necessary to have a regulatory framework in the Radio Regulations concerning the use in Region 1 of the frequency bands 1 635 - 1 800 kHz and 2 045 - 2 142 kHz;

noting

that it is within the terms of reference of this Conference to establish the final texts of appendices to the Radio Regulations containing the channelling arrangements in Appendices 1 and 2 to Resolution No. 704 (MOB-83) with the view to their later inclusion in the Radio Regulations.

recommends

that the Table of Frequencies appearing in the annex to this Recommendation concerning the frequency bands 1 635 - 1 800 kHz and 2 045 - 2 142 kHz is included in the Radio Regulations as an appendix;

invites the Administrative Council

to ensure that the Conference for the mobile services planned for 1987 will be competent to take a decision to include this appendix in the Radio Regulations.

ANNEX TO RECOMMENDATION No. COM6/C

Channelling of the frequency bands 1 635 - 1 800 kHz and 2 045 - 2 142 kHz used for single sideband radiotelephony by the Maritime Mobile Service

[To be developed by Committee 5.]

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 6

FIRST REPORT OF WORKING GROUP 6A TO COMMITTEE 6

1. The Working Group considered the proposals concerning the procedures for modification of the Plan and notification of frequency assignments in accordance with its terms of reference as described in Document 53 and adopted unanimously the texts of proposed Articles 4, 5 and 6 of the draft Agreement which appear in Annex 1.

M. MENCHEN
Chairman of Working Group 6A

Annex: 1

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ANNEX 1

ARTICLE 4

Procedure for modifications to the Plans

SECTION A - GENERAL

1. When a Contracting Member proposes to make a modification to the Plan, that is:

a) to modify the characteristics to a station of the maritime mobile service or the aeronautical radionavigation service shown in the appropriate Plan, whether or not the station has been brought into use; or

b) to bring into use an assignment to a station of the maritime mobile service or the aeronautical radionavigation service not appearing in any of the appropriate Plans; or

c) to modify the characteristics of a frequency assignment to a station of the maritime mobile service or the aeronautical radionavigation service for which the procedure in this article has been successfully applied, whether or not the station has been brought into use; or

d) to cancel from the appropriate Plan a frequency assignment to a station of the maritime mobile service or the aeronautical radionavigation service;

the following procedure shall be applied before any notification is made under the provisions of Article 12 of the Radio Regulations (see Article 5 of this Agreement).

SECTION B - PROCEDURE FOR THE MARITIME MOBILE SERVICE

Procedure for modifying the characteristics of an assignment or the bringing into use of a new assignment

2. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall, either directly or through the IFRB, seek the agreement of all other administrations whose assignments may be affected.

3. For the purposes of this procedure these other administrations shall be any which have:

a) assignments in the Plan or Plans for the same frequency band and whose service may be affected according to the criteria specified in Annex [ ] to this Agreement;

b) assignments recorded in the Master Register for stations of services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are allocated on a primary or permitted basis which may be affected as a result of the application of the provisions of No. 1241 of the Radio Regulations together with the technical criteria contained in Annex [ ].

4. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall so inform the IFRB and shall furnish the characteristics listed in Appendix 1 to the Radio Regulations, and shall also indicate to the IFRB the names of the administrations with which it considers agreement should be sought and of those with which agreement has been reached.

5. The IFRB shall examine the information received in order to identify the administrations having frequency assignments which may be affected as indicated in § 3 above. The results of this examination shall be sent immediately by the IFRB to the administration proposing the modification or addition to the Plan in question. The IFRB shall include the names of those administrations in the information received and shall publish the complete information in a special section of its weekly circular. The Board shall at the same time inform those administrations having assignments which it considers, in accordance with § 3, may be affected.

6. An administration which considers that it should have been included in the list of administrations whose frequency assignments may be affected shall inform the administration proposing the modification or addition to the Plan in question and the IFRB. At the same time it shall, giving its reasons for so doing, request the IFRB to include its name in the list.

7. If an administration, which has not communicated its agreement or disagreement to the proposing administration and to the IFRB within a period of 90 days following the date of the weekly circular referred to in § 5, the IFRB shall send a reminder to the administration concerned inviting it to urgently reply to the request for agreement within 15 days from the date of the reminder. If at the expiry of the two periods of 90 days and 15 days respectively, the administration concerned has still not communicated its agreement or disagreement, it shall be understood to have agreed to the proposed modification or addition.

8. If in seeking agreement an administration modifies its initial proposal in such a way as to increase the probability of interference to the assignment of an administration with which agreement has been sought, or to affect the assignment of an administration not previously involved, it shall again apply the provisions of § 3 and the subsequent procedure for those administrations.

9. Following expiry of the period specified in § 7, or when agreement has been reached with the administrations concerned, the administration proposing the modification or addition shall inform the IFRB of the results, indicating the agreed characteristics of the assignment together with the names of the administrations with which agreement has been reached.

10. If no agreement is reached between the administrations concerned, the IFRB shall make any study of the matter that may be requested by one or more of those administrations; the Board shall inform them of the results of the study and shall make such recommendations as it may be able to offer for the solution of the problem.

11. An administration before initiating this procedure and at any stage thereof may request the assistance of the IFRB, particularly in seeking the agreement of another administration.

12. If after application of the procedure described in this section agreement has been reached with all administrations involved, the Board shall publish an appropriate modification to the Plan (see also § 30).

13. If after application of the procedure described in this section the agreement of an administration having an assignment in the Plans can not be reached, the two administrations concerned may resort to one of the methods for the settlement of disputes described in Article 50 of the Convention or they may agree to apply the Optional Additional Protocol to the Convention.

14. The proposed assignment may, despite continuing disagreement, be notified in accordance with Article 12 of the Radio Regulations. However, the relevant provisions of Article 5 of the Agreement shall then be applied.

SECTION C - PROCEDURE FOR THE AERONAUTICAL RADIONAVIGATION SERVICE

Procedure for modifying the characteristics of an assignment or the bringing into use of a new assignment

15. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall, either directly or through the IFRB, seek the agreement of all other administrations whose assignments may be affected.

16. For the purposes of this procedure these other administrations shall be those which have assignments in the Plan or Plans for the same frequency band and whose service may be affected according to the criteria specified in Annex [ ] to this Agreement.

17. Where any ICAO coordination of the operational aspects of a proposed assignment is appropriate this should be completed before commencement of the following procedure.

18. An administration proposing to modify the characteristics of an assignment or to bring an additional assignment into use shall so inform the IFRB and shall furnish the characteristics listed in Appendix 1 to the Radio Regulations, and shall also indicate to the IFRB the names of the administrations with which it considers agreement should be sought and of those with which agreement has been reached.

19. The IFRB shall examine the information received in order to identify the administrations having frequency assignments which may be affected as indicated in § 16 above. The results of this examination shall be sent immediately by the IFRB to the administration proposing the modification or addition to the Plan in question. The IFRB shall include the names of those administrations in the information received and shall publish the complete information in a special section of its weekly circular. The Board shall at the same time inform those administrations having assignments which it considers, in accordance with § 16, may be affected.

20. An administration which considers that it should have been included in the list of administrations whose frequency assignments may be affected shall inform the administration proposing the modification or addition to the Plan in question and the IFRB. At the same time it shall, giving its reasons for so doing, request the IFRB to include its name in the list.

21. If an administration which has not communicated its agreement or disagreement to the proposing administration and to the IFRB within a period of 90 days following the date of the weekly circular referred to in § 19, the IFRB shall send a reminder to the administration concerned inviting it to urgently reply to the request for agreement within 15 days from the date of the reminder. If at the expiry of the two periods of 90 days and 15 days respectively, the administration concerned has still not communicated its agreement or disagreement, it shall be understood to have agreed to the proposed modification or addition.

22. If in seeking agreement an administration modifies its initial proposal in such a way as to increase the probability of interference to the assignment of an administraiton with which agreement has been sought, or to affect the assignment of an administration not previously involved, it shall again apply the provisions of § 16 and the subsequent procedure for those administrations.

23. Following expiry of the period specified in § 21, or when agreement has been reached with the administrations concerned, the administration proposing the modification or addition shall inform the IFRB of the results, indicating the agreed characteristics of the assignment together with the names of the administrations with which agreement has been reached.

24. If no agreement is reached between the administrations concerned, the IFRB shall make any study of the matter that may be requested by one or more of those administrations; the Board shall inform them of the results of the study and shall make such recommendations as it may be able to offer for the solution of the problem.

25. An administration before initiating this procedure and at any stage thereof may request the assistance of the IFRB, particularly in seeking the agreement of another administration.

26. If after application of the procedure described in this section agreement has been reached with all administrations involved, the Board shall publish an appropriate modification to the Plan (see also § 30).

27. If after application of the procedure described in this section the agreement of an administration having an assignment in the Plan can not be reached, the two administrations concerned may resort to one of the methods for the settlement of disputes described in Article 50 of the Convention or they may agree to apply the Optional Additional Protocol to the Convention.

28. The proposed assignment may, despite continuing disagreement, be notified in accordance with Article 12 of the Radio Regulations, however, the relevant provisions of Article 5 of the Agreement shall then be applied.

SECTION D - CANCELLATION OF ASSIGNMENTS

29. An administration proposing to cancel an assignment in any of the Plans, whether or not as a result of a modification (for instance a change of frequency), shall immediately so inform the IFRB. The Board shall publish this information in a special section of the weekly circular as a modification to the Plan.

30. If, within a period [5] years from the date of entry into force of the Plans annexed to the present Agreement or from the date of the inclusion of an assignment in the Plan, as a result of a modification to one of the Plans, the IFRB has not received a notice relating to its bringing into use, that assignment shall be cancelled from the Plan. Before taking this action, the Board shall consult the administration concerned on the appropriateness of such a cancellation, and if special circumstances warrant the deletion may be suspended for a maximum period of six months.

SECTION E - MAINTENANCE AND PUBLICATION OF RECORDS

31. The IFRB shall maintain an up-to-date master copy of the Plans and their Appendices, taking account of the application of the procedure specified in this Article; to this end the IFRB shall periodically prepare recapitulative documents listing all amendments made to their Plans as a result of modifications made in accordance with the procedures of this Article, the addition of new assignments in conformity with this Agreement, and any cancellations of which the Board has been notified.

32. The Secretary-General shall publish an up-to-date version of each Plan in an appropriate form as and when circumstances justify and in any case every five years.

ARTICLE 5

Notification of frequency assignments

33. Whenever an administration intends to bring into use an assignment in conformity with this Agreement, it shall notify the assignment to the IFRB in accordance with the provisions of Article 12 of the Radio Regulations.

34. Notices of frequency assignments in conformity with this Agreement shall not be examined by the Board under No. 1241 with Respect to frequency assignments recorded in the Master Register on behalf of Contracting Members for stations of primary or permitted services of administrations, Parties to the Agreement.

35. Notices of frequency assignments notified under §§ 14 and 28 of Article 4 for which it has not been possible to reach agreement shall be treated as follows:

a) when the disagreement of the administration concerned is with respect to an assignment in conformity with this Agreement, the notified assignment shall be recorded in the Master Register with a special remark indicating that the entry has been made subject to not causing harmful interference to the assignment of the administration with which agreement has not been reached;

b) when the disagreement of the administration concerned is with respect to an assignment recorded in the Master Register for a station of a primary or permitted service, the notified assignment shall be recorded in the MIFR only after the application of the provisions of No. 1255 of the Radio Regulations.

36. In relations between Contracting Members all frequency assignments in conformity with this Agreement and recorded in the Master Register shall be considered to have the same status irrespective of the date or dates entered in Column 2 for such assignments.

ARTICLE 6

Procedure applicable to the non-planned permitted and primary services

1. In order to permit the compatible development of the primary and permitted services in the bands 1 635 - 1 800 kHz and 2 045 - 2 160 kHz, the IFRB shall examine in accordance with No. 1245 of the Radio Regulations the frequency assignments of these other services notified by Contracting Members. To this effect the following provisions shall be applied.

2. The Board shall examine the frequency assignment with respect to the probability of harmful interference to the service rendered or to be rendered by a frequency assignment:

a) which is already recorded in the Master Register and bears a date in Column 2a; or

b) which is recorded in the Master Register in accordance with No. 1240 of the Radio Regulations and bears a date in Column 2b, but has not, in fact, caused harmful interference to any frequency assignment with a date in Column 2a or to any assignment in conformity with No. 1250 with an earlier date in Column 2b;

c) which is in conformity with this Agreement but has not yet been notified in accordance with Article 5;

d) which was published in a special section of the weekly IFRB circular in accordance with § 5 of Article 4.

3. In the event of an unfavourable finding relating to a frequency assignment described in §§ 2 c) or 2 d), if the administration resubmits the notice under No. 1255 of the Radio Regulations the period of two months specified in No. 1259 shall not start until that assignment is brought into service.

4. For the purpose of these examinations the Board shall apply the technical criteria contained in Annex [ ] to the Agreement.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Corrigendum 1 to
Document 78-E
3 April 1985
Original: English

SUMMARY RECORD

OF THE

THIRD MEETING OF COMMITTEE 6

1. Paragraph 3.7

Amend to read:

"3.7 The delegate of Spain said that the Plan to be approved by the Conference would provide the necessary mechanism for shifting stations of the maritime mobile service to which resolves 2 of Resolution No. 38 referred."

2. Paragraph 3.9

Delete the final part of the sentence, so that the paragraph reads:

"3.9 The delegate of Spain, speaking as Chairman of Working Group 6A, said that his view was that all countries in Region 1 would be parties to the Agreement unless they specifically contracted out of it."

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Document 78-E
8 March 1985
Original: English

COMMITTEE 6

SUMMARY RECORD

OF THE

THIRD MEETING OF COMMITTEE 6

(AGREEMENT AND PROCEDURES)

Monday, 4 March 1985, at 1400 hrs

Chairman: Mr. S. CHALLO (Kenya)

Subjects discussed:	Documents
1. Establishment of the ad hoc Group of Committee 6 for preparation of the technical Appendices to the Agreement	DL/6
2. Approval of the summary record of the first meeting of Committee 6	40
3. Oral reports of the Working Group Chairmen on the progress of work in their respective Working Groups	-

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1. Establishment of the ad hoc Group of Committee 6 for preparation of the technical Appendices to the Agreement (Document DL/6)

1.1 The Chairman said that subsequent to the Note he had sent to the Chairman of Committee 4 in Document 48, and the reply received from the Chairman of Committee 4 in Document 65, it appeared desirable to establish an ad hoc Group with the terms of reference contained in Document DL/6.

It was so agreed.

1.2 At the Chairman's invitation, Mr. E. George (Federal Republic of Germany) agreed to act as Chairman of the ad hoc Group, which would consist of the delegations of France, Spain, Netherlands and the United Kingdom.

2. Approval of the summary record of the first meeting of Committee 6 (Document 40)

The summary record of the first meeting of Committee 6 was approved.

3. Oral reports of the Working Group Chairmen on the progress of work in their respective Working Groups

3.1 The Chairman of Working Group 6A said that his Working Group had held three meetings, taking as the basis for its work Document 9(Rev.1), and had reached preliminary agreement on the drafts of Articles 4, 5 and 6 (DT/12). It had also prepared a draft Resolution (DT/12) relating to the application of Articles 4, 5 and 6 of the Agreement before the entry into force of the Agreement. He anticipated that the Working Group would complete its task before the time limit assigned to it.

3.2 The Chairman recalled that at its second meeting Committee 6 had decided to produce a draft Resolution concerning the clearance of the Master Register to facilitate implementation of the Plan. He proposed that Working Group 6A should be asked to produce such a draft Resolution.

It was so agreed.

3.3 The Chairman of Working Group 6B said that his Working Group had held one meeting and, also using Document 9(Rev.1) as the basic document, had produced a draft of the Agreement with the exclusion of Articles 4, 5 and 6 (Document DT/13). In addition, the Group had discussed three draft Recommendations based on proposals by the Netherlands delegation in Document 7 regarding the channelling arrangements in Appendices 1 and 2 to Resolution No. 704, which would be issued as Document DT/13(Add.1). He hoped that the Group would conclude consideration of those Recommendations and thus complete its work at its next meeting.

He assumed that while his Working Group was preparing the texts of the Recommendations to accompany the channelling plans, the actual revised channel plans would be produced by Committee 5.

3.4 The representative of the IFRB said it was not yet known which channels Committee 5 would use for the final Plan. It might be desirable to ask the ad hoc Group just established to consider the question of the final channels to be entered in the annex to the Recommendations.

A question also arose as to whether or not the channelling tables should be annexed to the Agreement. If the WARC planned for 1987 were to decide to modify the tables or exclude them from the Radio Regulations, it would be a safeguard if they were included in the Agreement and in the Recommendation to the 1987 WARC.

3.5 The delegate of the USSR, supported by the delegate of the United Kingdom, said that the text of the Agreement should include the channelling plans.

It was so agreed.

3.6 The Chairman invited views on whether further action needed to be taken in implementation of resolves 2 of Resolution No. 38 of WARC-1979.

3.7 The delegate of Spain said it was his Administration's understanding that no specific action needed to be taken since the Plan to be approved by the Conference would provide the necessary mechanism for shifting stations of the maritime mobile service to which resolves 2 of Resolution No. 38 referred.

3.8 The representative of the IFRB recalled that WARC-1979 had reallocated some portions of the band to the maritime mobile service. A need had thus arisen to clear the band of stations existing in it and WARC-1979 had therefore adopted Resolution No. 38 inviting administrations to transfer stations of the fixed service to other bands; when transferred those stations would keep their priority of date. With regard to the maritime mobile service, WARC-1979 had invited the Conference to reassign replacement frequencies in the Plan to be adopted, but one peculiarity of the situation was that the 1979 Resolution had instructed the Conference to adopt decisions applicable to all Region 1 countries, whether they participated in the Conference or not. It would therefore be appropriate, in response to the instructions of WARC-1979, to adopt a Resolution indicating exactly what the IFRB should do in respect of all Region 1 countries and not merely countries' parties to the Agreement.

3.9 The delegate of Spain, speaking as Chairman of Working Group 6A, said that his view was that all countries in Region 1 would be parties to the Agreement unless they specifically contracted out of it, in which case they would have to cease the operations of their maritime mobile stations.

3.10 The representative of the IFRB confirmed that so far as the Plan was concerned all assignments appearing in it, whether resulting from the application of Resolution No. 38 or from the planning process would be of equal status. A problem might, however, arise in respect of the dates to be allocated to replacement frequencies in the fixed service and in the maritime mobile service and the corresponding protection afforded the frequencies.

3.11 The Chairman said that that point should be considered further by Working Group 6A.

The meeting rose at 1445 hours.

The Secretary: The Chairman:

J. BALFROID S. CHALLO

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Document 79-E
6 March 1985
Original : English

COMMITTEE 2

SECOND REPORT OF THE WORKING GROUP OF COMMITTEE 2 (CREDENTIALS)

The Working Group of Committee 2 held a second meeting on 5 March 1985 to examine the Credentials of the following delegations *:

ALBANIA (Socialist People's Republic of)
ANGOLA (People's Republic of)
BAHRAIN (State of)
BELGIUM
CYPRUS (Republic of)
IVORY COAST (Republic of the)
FRANCE
GHANA
GREECE
GUINEA (Republic of)
HUNGARIAN PEOPLE'S REPUBLIC
ISRAEL (State of)
KENYA (Republic of)
KUWAIT (State of)
LIBYA (Socialist People's Libyan Arab Jamahiriya)
POLAND (People's Republic of)
ROMANIA (Socialist Republic of)
CHAD (Republic of the)
TUNISIA
UNION OF SOVIET SOCIALIST REPUBLICS

The Credentials of these delegations were all found to be in order.

J.F. PATRICIO
Chairman of the Working Group C2-A

*In the alphabetical order of the French version of the country names.

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GENEVA, FEBRUARY/MARCH 1985

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6 March 1985
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COMMITTEES 4 AND 6

NOTE FROM CHAIRMAN OF COMMITTEE 5

TO COMMITTEES 4 AND 6

Committee 5 decided to amend paragraph 2.6 of Document DT/14 of Committee 4 sent to Committee 6 as follows:

"The channel spacing is 1 kHz. However, in exceptional cases, for national use, interleaved channels at 0.5 kHz may also be used provided that this use does not adversely affect the assignment in the Plan on integer multiples of 1 kHz."

Committee 4 is requested to establish adjacent channel protection criteria for that additional use and to include these criteria in the table in paragraph 2.4 of Document DT/14.

T. BØE
Chairman of Committee 5

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Document 81-E
6 March 1985
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PLENARY MEETING

MINUTES

OF THE

SECOND PLENARY MEETING

Tuesday, 5 March 1985 at 1400 hrs

Chairman: Mr. T. HAHKIO (Finland)

Subjects discussed:	Documents
1. First Report by the Chairman of Committee 5	70
2. Oral reports by the Chairmen of Committees 2, 3, 4, 6 and 7	-
3. Approval of the minutes of the first Plenary Meeting	39

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1. First Report by the Chairman of Committee 5 (Document 70)

1.1 The Chairman of Committee 5 introduced the first report contained in Document 70.

The Committee took note of Document 70.

2. Oral reports by the Chairmen of Committees 2, 3, 4, 6 and 7

2.1 The Chairman of Committee 2 said that the Committee had established a Working Group which had examined the credentials received by the Secretariat to date. A further meeting of the Committee would be held in order to adopt its report for submission to the Plenary Meeting.

2.2 The Chairman of Committee 3 said that the Committee had ascertained that the Conference was operating within the budgetary limits laid down. It was considering the Final Acts of the two Conferences and the expenses relating thereto.

2.3 The Chairman of Committee 4 said that the Committee's decisions were contained in Documents 60, 61, 62 and 65.

2.3.1 The delegate of Iraq said that the late arrival of his delegation had prevented it from participating in the Committee's work; he could not therefore commit his delegation to the decisions reached until it had had time to study the documents.

2.4 The Chairman of Committee 6 said that the Committee had established Working Groups 6A and 6B with the terms of reference contained in Document 53. Working Group 6A had already developed most of the procedures for modifications to the Plans, while Working Group 6B had essentially finished its task. The Committee had also established an ad hoc Group to prepare the final form of the technical appendices to the annex to the Agreement.

2.5 The Chairman of Committee 7 said that the Committee would submit to the next meeting a document containing the draft title of the Final Act.

The Plenary Meeting took note of the oral reports.

3. Approval of the minutes of the first Plenary Meeting (Document 39)

The Plenary Meeting approved the minutes of the first meeting contained in Document 39.

The meeting rose at 1450 hours.

The Secretary: R.E. BUTLER

The Chairman: T. HIHKIO

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 6

REPORT OF THE AD HOC GROUP OF COMMITTEE 6
TO COMMITTEE 6

Annexes A and B contain draft technical annexes of the Agreement for consideration in Committee 6. Their contents are based on Documents 60, 61, 62 and 65.

The delegation of Spain reserved its position on the layout of Annex A.

E. GEORGE
Chairman of the ad hoc Group of Committee 6

Annexes: 2

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ANNEX A

(Source: Documents 60, 61 and 62)

Technical parameters used in establishing frequency assignment plans in Region 1 for the maritime mobile service in the bands 415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz and for the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz

1. Maritime mobile service

1.1 Modes of operation and classes of emission

Morse telegraphy (designation of emission 100 HA1A) and single-sideband telephony (upper sideband, designation of emission [2.4] [2.7] KJ3E) are operated in the bands below 526.5 kHz and above 1 606.5 kHz, respectively. Narrow-band direct-printing (transmision rate 100 bauds, frequency deviation ± 85 Hz, designation of emission 304 HF1B) and digital selective calling (transmission rate 100 bauds, frequency deviation ± 85 Hz, designation of emission 304 HF1B) are operated in all bands. Since the emission characteristics of narrow-band direct-printing and digital selective calling are essentially the same, they require the same minimum usable field strength and protection ratios. Subsequently the different modes of operation are referred to by their respective class of emission.

1.2 Propagation

1.2.1 Ground-wave propagation

Ground-wave propagation was calculated according to CCIR Recommendation 368-4 for propagation over sea water, average salinity, 20°C, σ = 5S/m and ε = 70. For the bands 415 - 435 kHz, 435 - 526.5 kHz and above 1 606.5 kHz the curves for 400 kHz, 500 kHz and 2 MHz, respectively, were used. The curves applied are given in Figure 1; they refer to an e.m.r.p. of 1 kW.

1.2.2 Sky-wave propagation

Sky-wave propagation was calculated according to CCIR Recommendation 435-4 for midnight conditions. Polarization coupling loss and sea gain were not taken into account. Field strengths produced by coast stations situated north of and on parallel 20° North and south of parallel 20° North were calculated for geomagnetic latitudes 50° North and 30° South, respectively.

For the bands below 526.5 kHz and above 1 606.5 kHz the curves were calculated for 500 kHz and 1 800 kHz, respectively. They are given in Figure 2 and refer to an e.m.r.p. of 1 kW.

1.2.3 Application of ground- and sky-wave propagation

The ground-wave field strength was used to determine the coverage area and, where no night-time protection was required, also the interference range. The maximum of ground- and sky-wave field strength was used to determine the interference range where night-time protection was required.

1.3 Minimum field strength to be protected

The following values of the minimum field strength to be protected, which include allowances for variations in noise level with time and signal fading with time, were applied:

1.3.1 Bands below 526.5 kHz

A1A: 36.5 dB(μV/m) north of and on parallel 30° North
56.5 dB(μV/m) south of parallel 30° North

F1B: 31.5 dB(μV/m) north of and on parallel 30° North
51.5 dB(μV/m) south of parallel 30° North

1.3.2 Bands above 1 606.5 kHz

F1B: 22.5 dB(μV/m) north of and on parallel 30° North
42.5 dB(μV/m) south of parallel 30° North

J3E: 37 dB(μV/m) north of and on parallel 30° North
57 dB(μV/m) south of parallel 30° North

1.4 Protection ratio

The following values of protection ratio (see Radio Regulation 164) were applied:

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB		
	Wanted signal		
	A1A interfering signal A1A or F1B	F1B interfering signal F1B or A1A	J3E interfering signal J3E
0	8	8	20
0.5	-13	-38	
1.0	-26	-62	
1.5	-42		
2.0	-60		
3.0			-25
6.0			-50

1.5 Multiple interference

For a given compatibility calculation only the interference contribution from the strongest interfering signal was considered.

1.6 Channel spacing

1.6.1 A1A and F1B: 0.5 kHz.

1.6.2 J3E: 3 kHz.

1.7 Trasmitted power

The effective monopole radiated power (e.m.r.p., see Radio Regulation 157) was derived from the minimum field strength to be protected at the edge of the coverage area. The power supplied to the antenna transmission line was derived from the e.m.r.p. by applying the following typical values of antenna gain (see Radio Regulation 154) relative to a short vertical antenna, which include the loss of the antenna coupling unit:

1.7.1 Bands below 526.5 kHz: -7 dB;

1.7.2 Bands above 1 606.5 kHz: -4 dB.

1.8 Further considerations

Due to constraints in the available computer program, the computer analysis of the plan could neither take account of propagation over mixed land/sea paths nor of a more sophisticated method of sky-wave field strength prediction. These factors were, however, taken into consideration by administrations in a case by case analysis, when solving incompatibilities during the Conference. For mixed path propagation the Millington method, described in CCIR Recommendation 368-4, and for sky-wave propagation a simplified method, but more sophisticated than that used for the computer analysis of the Plan and also based on CCIR Recommendation 435-4, were used.

[In general], omnidirectional antennas were assumed. [However, on a case by case basis, directional antennas were taken into consideration, which increased the sharing possibilities.]

2. Aeronautical radionavigation service

2.1 Mode of operation and class of emission

The non-directional beacons with class of emission A2A operating in the bands under consideration provide direction finding information to aircraft. For identification purposes their call sign is transmitted in Morse telegraphy. Two types of beacon exist, having modulation frequencies of 400 Hz (± 25 Hz) and of 1 020 Hz (± 50 Hz), respectively. Complete information is contained in Annex 10 to the ICAO Convention on Civil Aviation.

2.2 Propagation

The ground-wave mode of propagation only was used. Ground-wave field strength was calculated according to CCIR Recommendation 368-4 for propagation over wet ground, σ = 10-2 S/m, ε = 30. For the bands 415 - 435 kHz and 505 - 526.5 kHz the curves for 400 kHz and 500 kHz, respectively, were used. They are given in Figure 3 and refer to an e.m.r.p. of 1 KW.

For propagation over mixed land/sea paths see section 2.8.

2.3 Minimum field strength to be protected

The following values of the minimum field strength to be protected (see also Radio Regulations 2856 and 2857) were applied:

2.3.1 37 dB(μV/m) for stations north of parallel 30o North and south of parallel 30o South;

2.3.2 41.6 dB(μV/m) for stations between parallels 30o North and 30o South.

2.4 Protection ratio

The following values of protection ratio (see Radio Regulation 164 and also 2854) were applied:

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB
0	15
1	9
2	-5
3	-20
4	-35
5	-50
6	-65

2.5 Multiple interference

For a given compatibility calculation only the interference contribution from the strongest interfering signal was considered.

2.6 Channel spacing

1 kHz

2.7 Transmitted power

The effective monopole radiated power (e.m.r.p., see Radio Regulation 157) was derived from the minimum field strength to be protected at the edge of the coverage area.

2.8 Further considerations

Due to constraints in the available computer program, the computer analysis of the plan could not take account of propagation over mixed land/sea paths. Section 2.2 indicates that the propagation characteristics were predicted as for "wet ground" and thus when a significant fraction of the path from an interfering emission to the wanted coverage area was across sea water the predicted interference level may have been underestimated. Possible incompatibilities due to actual sea paths were identified. Each such case was analyzed individually by administrations using the curves for the appropriate conductivity. Where mixed paths were concerned the Millington method described in CCIR Recommendation 368-4 was used.

3. Compatibility between the maritime mobile service and the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz and at the band limit around 435 kHz

3.1 Protection of stations of the maritime mobile service against interference from stations of the aeronautical radionavigation service

3.1.1 The parameters given in sections 1.2, 1.3 and 1.5 to 1.8 were applied.

3.1.2 The protection ratios were as follows:

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB			
	interfering radiobeacon with 400 Hz modulation		interfering radiobeacon with 1 020 Hz modulation	
	wanted signal A1A	wanted signal F1B	wanted signal A1A	wanted signal F1B
0	8	8	8	8
0.5	2	2	-13	-38
1.0	-19	-44	2	2
1.5	-32	-68	-19	-44
2.0	-48		-32	-68
2.5	-66		-48	
3.0			-66	

3.2 Protection of stations of the aeronautical radionavigation service against interference from stations of the maritime mobile service

The parameters given in sections 2.2 to 2.8 were applied. It was assumed that a maritime mobile signal (A1A or F1B) has the same interference potential as an aeronautical radiobeacon signal.

3.3 Protection of stations of the maritime mobile service immediately above 435 kHz against interference from stations of the aeronautical radionavigation service immediately below 435 kHz and vice-versa

The criteria given in 3.1 and 3.2 were applied.

4. Technical criteria applied for the reassignment of replacement frequencies for stations of the maritime mobile service in the bands 1 625 - 1 635 kHz, 1 800 - 1 810 kHz and 2 160 - 2 170 kHz according to Resolution No. 38 of the World Administrative Radio Conference, Geneva, 1979

The criteria given in section 1 and relevant to the bands above 1 606.5 kHz were applied.

5. Technical criteria applied for the protection of frequency assignments of stations of other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are also allocated

In applying the planning program as part of the computer program package for the establishment of the Plan, a frequency for stations of the maritime mobile service was selected on the basis of provisional sharing criteria between the services concerned. In applying in the second stage the incompatibility analysis program as part of the computer program package, the final and definite compatibility analysis vis-a-vis stations of the other services to which these bands are also allocated was carried out on the basis of the Technical Standards of the IFRB. This analysis identified those cases where there was a probability of harmful interference in either direction.

ANNEX B

Limits for determining whether a service of an administration is considered to be affected by a proposed modification of the Plan

(Article 4, paragraphs [3 and 16])

1. Limits on a change in the wanted to unwanted signal ratio with respect to frequency assignments in accordance with the Plans

In the application of paragraphs [3 and 16] of Article 4, an administration having an assignment in the Plan is considered to be affected if the wanted to unwanted signal ratio (co-channel or any of the adjacent channels) resulting from the proposed modification of the Plan is less than the protection ratio indicated in sections 1.4, 2.4 or 3.1.2 of Annex A, as appropriate [and is less than the wanted to unwanted signal ratio resulting from the first entry in the Plan of the affected assignment].

The calculation of the wanted to unwanted signal ratio shall be based on the following criteria.

a) Stations of the maritime mobile service interfering with stations of the maritime mobile service:

Annex A, sections [1.2] [1.2.1] and 1.3 to 1.7.

b) Stations of the maritime mobile service interfering with stations of the aeronautical radionavigation service:

Annex A, sections 1.2.1, 1.7 and 2.3 to 2.7.

The Board in communicating the list of administrations with which coordination is necessary, shall also indicate in the Special Section, for information only, the wanted to unwanted signal ratio resulting from the use of propagation over land (i.e. the data given in section 2.2 of Annex A).

c) Stations of the aeronautical radionavigation service interfering with stations of the aeronautical radionavigation service:

Annex A, sections 2.2 to 2.7.

d) Stations of the aeronautical radionavigation service interfering with stations of the maritime mobile service:

Annex A, sections [1.2] [1.2.1], 1.3, 1.5, 1.6, 2.7 and 3.1.2.

2. Limits of changes in the wanted to unwanted signal ratio with respect to the frequency assignments of the [maritime mobile] service in the band [415 - 435 kHz] and the [aeronautical mobile service] in the band [505 - 526.5] kHz that are recorded in the MIFR

In the application of paragraphs [3 and 16] of Article 4, an administration having an assignment recorded in the MIFR is considered to be

affected if the wanted to unwanted signal ratio (co-channel or any of the adjacent channels) resulting from the proposed modification of the Plan is less than the protection ratio indicated in sections 2.4 or 3.1.2 of Annex A, as appropriate [and is less than the wanted to unwanted signal ratio resulting from the first entry in the Plan of the affected assignment].

The calculation of the wanted to unwanted signal ratio shall be based on the following criteria.

a) Stations of the maritime mobile service interfering with stations of the aeronautical radionavigation service:

Annex A, sections 1.2.1, 1.7 and 2.3 to 2.7.

The Board in communicating the list of administrations with which coordination is necessary, shall also indicate in the Special Section, for information only, the wanted to unwanted signal ratio resulting from the use of propagation over land (i.e. the data given in section 2.2 of Annex A).

b) Stations of the aeronautical radionavigation service interfering with stations of the maritime mobile service:

Annex A, sections [1.2] [1.2.1], 1.3, 1.5, 1.6, 2.7 and 3.1.2.

3. Limits of change in the wanted to unwanted signal ratio with respect to the frequency assignments appearing in the MIFR of the primary and permitted services that are not included in the Plans (except those covered by section 2 above)

In the application of paragraph [3] of Article 4, an administration having an assignment in the MIFR shall be considered to be affected, if the results of the Board's technical examination using the current technical standards of the Board for the services and frequency bands concerned would result in an unfavourable finding.

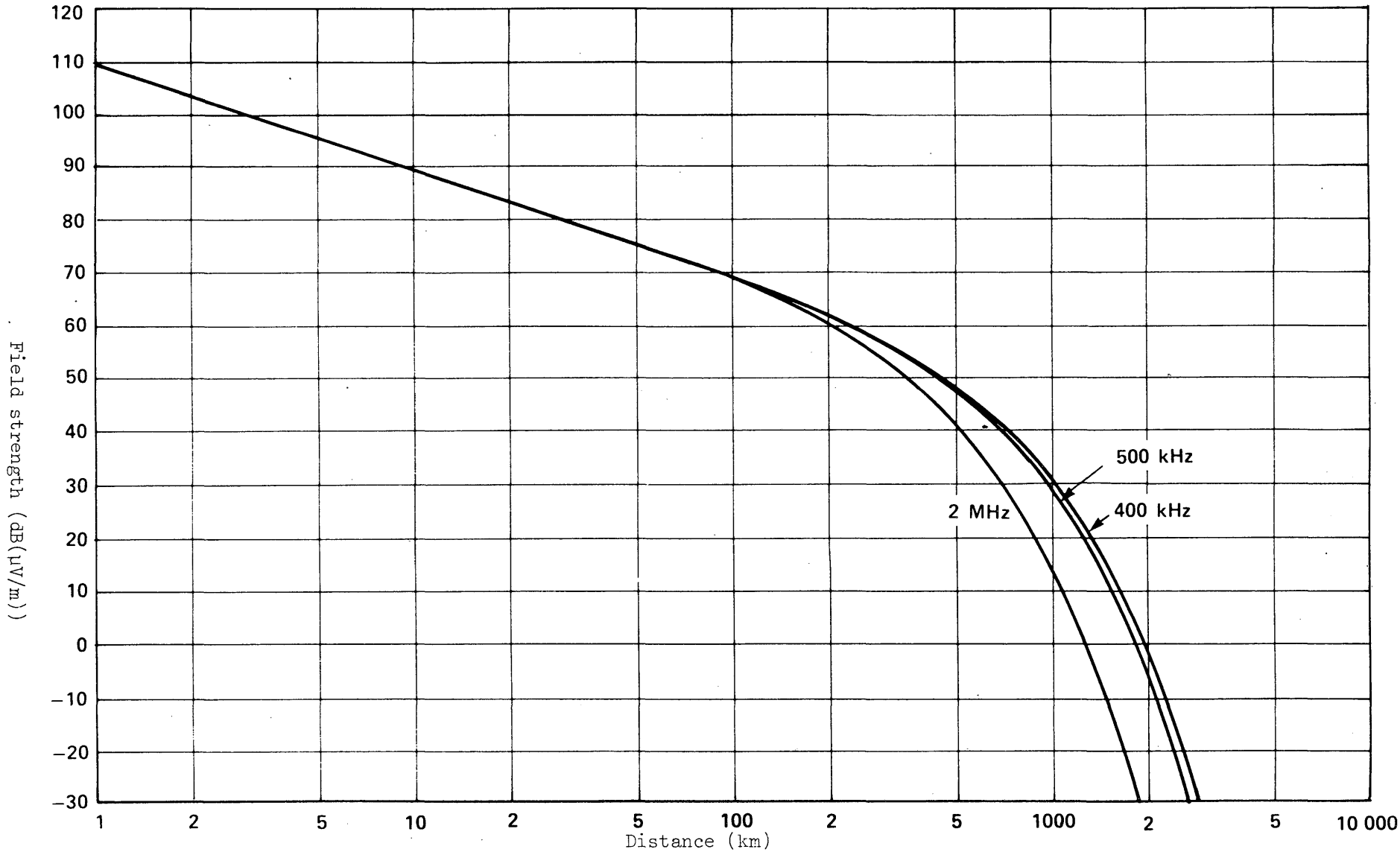

FIGURE 1

Ground-wave propagation - maritime mobile service

see Section 1.2.1

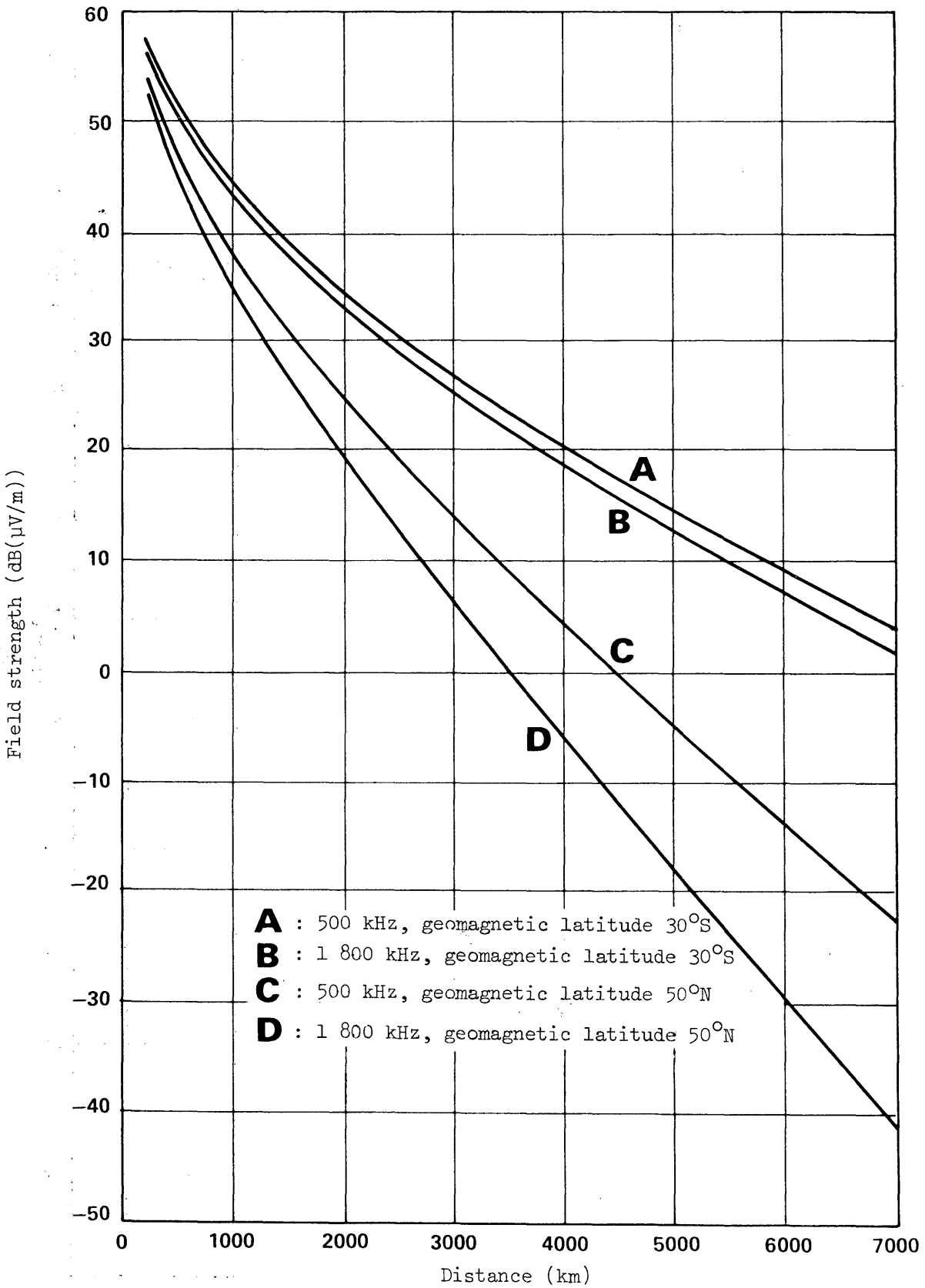

FIGURE 2

Sky-wave propagation - maritime mobile service

see Section 1.2.2

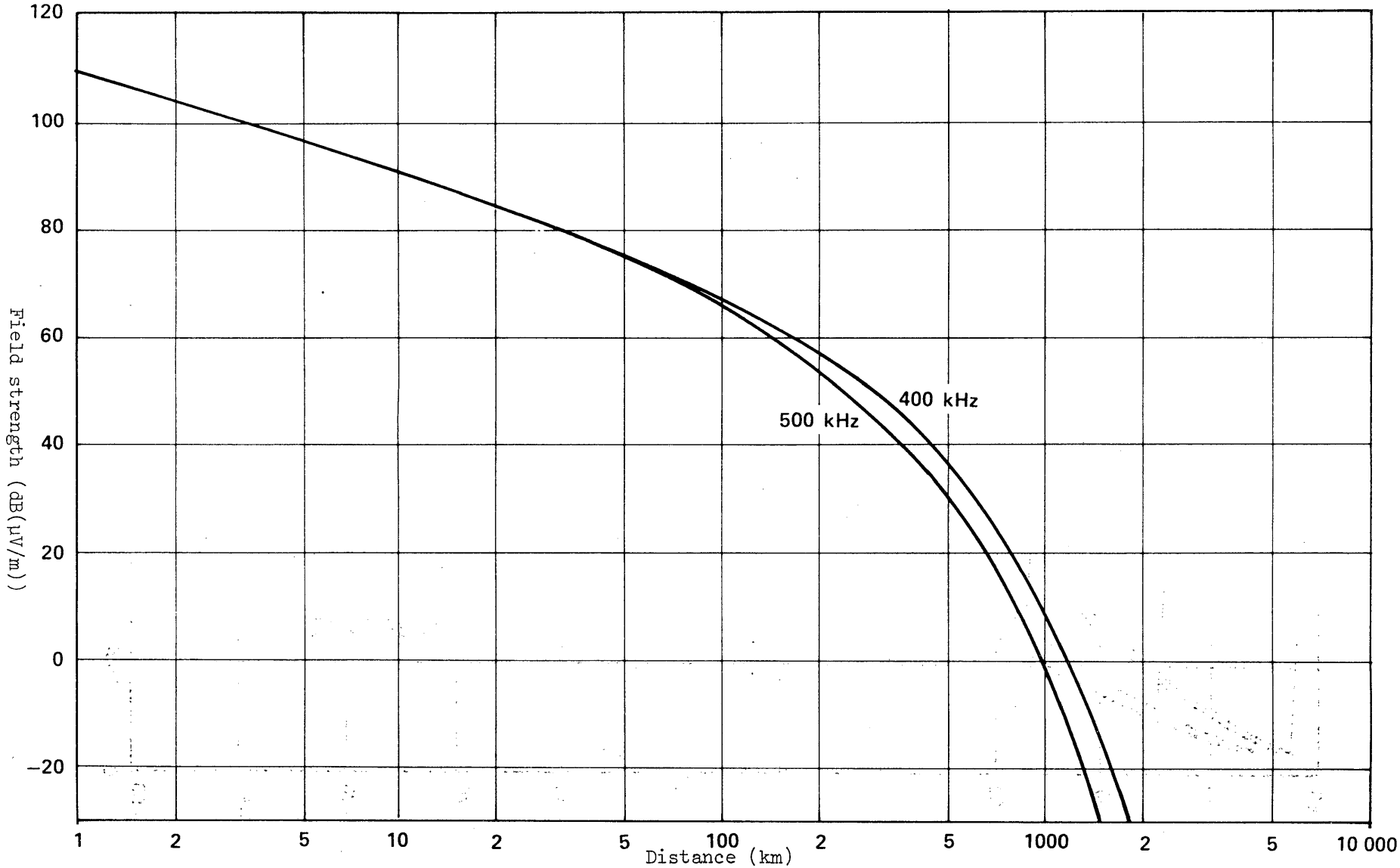

FIGURE 3

Ground-wave propagation - aeronautical radionavigation service

see Section 2.2

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 83-E
6 March 1985
Original: English

COMMITTEE 6

NOTE BY THE CHAIRMAN OF COMMITTEE 5 TO COMMITTEE 6

Committee 5 decided to request Committee 6 to incorporate in the Agreement, at an appropriate place, the following condition of utilization of the radiotelephony channels within the band 1 635 - 1 800 kHz and 2 045 - 2 160 kHz:

"In order to avoid mutual interference between stations in the Plan, the administrations shall take all necessary steps to ensure that the radiotelephony frequencies are only used within the coverage area specified in the Plan."

T. BØE
Chairman of Committee 5

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 84
7 March 1985
Original: English

COMMITTEE 6

NOTE FROM CHAIRMAN OF COMMITTEE 5 TO COMMITTEE 6

It is expected that, after the planning process and last negotiations among administrations concerned, there will be some requirements which may not be satisfied during this Conference.

Committee 5 decided to request Committee 6 to foresee in the Agreement the possibility of dealing with this category of requirements.

T. BØE
Chairman of Committee 5

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 85-E
7 March 1985
Original: English

COMMITTEE 5

NOTE BY CHAIRMAN OF COMMITTEE 5

The annex to this document contains the main decisions taken by Committee 5 as of 6 March 1985.

T. BØE
Chairman of Committee 5

Annex: 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX

1. Committee 5 decided to plan the band 415 to 435 kHz to the maritime mobile service after the planning exercise is completed in the same band for the aeronautical radiobeacons.

The channelling arrangement is based on 0.5 kHz channel spacing, and all the channels in this band will be used for coast station transmitting frequencies using duplex operation mode. As for the corresponding ship station frequencies, the following international ship working frequencies are to be used: 454, 468, 480 kHz and that other frequency which will be chosen to replace 425 kHz.

2. As for the frequency 435 kHz, it was decided to use this frequency within the planning process basically for the maritime mobile service with a maximum service range of 200 km.

3. Committee 5 decided not to plan the frequency 518 kHz, which is reserved for NAVTEX emissions and for which a separate procedure is foreseen by Resolution No. 318. The frequency 518 kHz shall therefore be considered as a blocked frequency in the planning process.

4. As for the planification of the band 450 to 461 kHz, it was decided to include in the plan the first seven frequencies of paragraph b) of Appendix 1 to Resolution No. 704 (spaced at 0.5 kHz) between 450 and 453 kHz (inclusive) to be used by coast stations for simplex operation with a maximum service range of 50 nautical miles. (N.B. Frequencies 460 and 460.5 kHz had already been decided for use as ship station transmit frequencies in the duplex operation channelling arrangement.)

5. Committee 5 also decided to allow the possibility to use, by aeronautical radiobeacons, in exceptional cases and only for national purposes, interleaved channels at 0.5 kHz between channels spaced at 1 kHz, subject to not adversely affecting the assignment in the plan on frequencies of integer multiples of 1 kHz.

6. The band edge frequency 415 kHz will not be included in the plan. Those requirements which will be satisfied on this frequency for aeronautical radiobeacons will be covered by a Resolution to be drafted during this Conference.

7. For the second planning exercise, Committee 5 decided to apply the planning principles defined in Document 63 with the exception of the priority order (paragraph 2.1.1) in the 500 kHz band for which the second planning run will use the priority order described in paragraph 2.1.2 of the same document. The Committee redefined the channelling arrangement for ship station transmit frequencies for the 2 MHz radiotelephony band, described in 2.5.2.1.

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA
GENEVA, MARCH 1985

EUROP.

Document 1041-E
7 March 1985
Original: French

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 86-E
7 March 1985
Original: French

COMMITTEE 7 (MM)
COMMITTEE 6 (EMA)

SUMMARY RECORD

OF THE

FIRST MEETINGS OF THE EDITORIAL COMMITTEE

FOR RARC-MM-R1 AND RARC-EMA-R1

Friday, 1 March 1985, at 1400 hrs - RARC-MM-R1
Tuesday, 5 March 1985, at 1100 hrs - RARC-EMA-R1

Chairman: Mr. J.L. BLANC (France)

Subjects discussed:

1. Terms of reference of the Editorial Committee
2. Membership of the Committee
3. Method of work
4. Other business

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Terms of reference of the Editorial Committee

The Chairman drew the attention of participants to the provisions of Nos. 473 and 474 of the International Telecommunication Convention (Nairobi, 1982) which specify the terms of reference of the Committee.

2. Membership of the Committee (preparation of the list of participants)

Participants were invited to designate members to participate in the work of the Editorial Committee and cover each working language of the Union. A list was prepared on the basis of information provided by the delegates of France, Spain and the United Kingdom.

3. Method of work

Some details were given on the methods of work envisaged, including the possibility of setting up two teams which would work simultaneously if necessary.

4. Other business

It was agreed that, in accordance with the practice followed at previous conferences, abbreviated titles should be used if possible for the Final Acts and Regional Agreements to facilitate future reference to those documents. Questions of simplification and economy also were raised in that connection.

The Secretary:
P.-A. TRAUB

The Chairman:
J.L. BLANC

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 87-E
7 March 1985
Original: French

COMMITTEE 5

Note by the Chairman of Committee 5

INFORMATION INCLUDED IN THE COLUMNS OF THE PLANS

Annexes 1 and 2 to this document contain a draft list of the information to be included in the columns of the Plans.

T. BØE
Chairman of Committee 5

Annexes: 2

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX 1

Information included in the columns of the Plan (Region 1) for the maritime mobile service in the bands 415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz

Column

1. Assigned frequency (kHz)/(carrier frequency (kHz) for J3E)

2. Channel number

3. Country symbol

4. Transmitting coast station name

5. Symbol of the geographical area where the station is located (see Table 1 in the Preface to the International Frequency List)

6. Geographical coordinates of the transmitting station

7. Service area:

   7a) Longitude and latitude (degrees and minutes) of the centre of the service area and radius (km) of the circular service area; or

   7b) Longitude and latitude (degrees and minutes) of (maximum six) points limiting the service area

8. Nature of service

9. Necessary bandwidth and class of emission

10. Necessary transmitting power:

    10A: effective monopole radiated power (e.m.r.p.) (dBW)

    (calculated value on the basis of the [minimum usable field strength] and the service range for ground-wave propagation conditions)

    10B: power supplied to the antenna transmission line (dBW)

    (calculated value: e.m.r.p. + 7 dB (for the 500 kHz band)
    e.m.r.p. + 4 dB (for the 2 MHz band)

11. Antenna characteristics

    11A: azimuth of maximum radiation (ND for non-directional antenna) (degrees)

    11B: maximum antenna gain (dB)

    11C: angular width of the main lobe (degrees)

12. Normal hours of operation (UTC) of frequency assignment

Column

13. Mode of operation:

    D: duplex or S: simplex

14. Remarks

ANNEX 2

Information included in the columns of the Plan (Region 1) for the aeronautical radionavigation service (radiobeacons) in the bands 415 - 435 kHz and 510 - 526.5 kHz

Column

1. Assigned frequency (kHz)

2. Channel number

3. Country symbol

4. Transmitting station name

5. Symbol of geographical area where the station is located (see Table 1 in the Preface to the International Frequency List)

6. Longitude and latitude (degrees and minutes) of the transmitting station

7. Longitude and latitude (degrees and minutes) of the centre of the service area and radius (km) of the circular service area

8. Nature of service

9. Necessary bandwidth and necessary class of emission

10. Effective monopole radiated power (e.m.r.p.) (dBW)

(value calculated on the basis of the [minimum usable field strength] and the service range for ground-wave propagation conditions)

11. Antenna characteristics (ND)

12. Normal hours of operation (UTC) of frequency assignment

13. Remarks

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 88-E
7 March 1985
Original: English

COMMITTEES 5 AND 6

NOTE FROM COMMITTEE 4 TO COMMITTEES 5 AND 6

Reference: Document 80

The annex contains the decisions taken by Committee 4 concerning protection ratios for the aeronautical radionavigation service for a channel spacing of 500 Hz.

E. GEORGE
Chairman of Committee 4

Annex: 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX

Protection ratios for the aeronautical radionavigation service for a channel spacing of 500 Hz

The following table shall replace the tables contained in Document 60, Annex, section 2.3 and Document 82, Annex A, section 2.4.

Frequency separation between wanted and interfering signal in kHz	**Protection ratio in dB**
0	15
0.5	15
1	9
1.5	2
2	-5
2.5	-12.5
3	-20
3.5	-27.5
4	-35
4.5	-42.5
5	-50
5.5	-57.5
6	-65

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 89-E
7 March 1985
Original: English

COMMITTEE 5

FOURTH NOTE FROM COMMITTEE 4 TO COMMITTEE 5

Subject: Expression of power in terms of carrier, mean or peak envelope power in the information to be included in the Plans

Reference: Document DT/15, Annexes 1 and 2, item 9

Committee 4 has taken the following decision concerning the above-indicated matter, which is in line with Appendix 1, section II to the Radio Regulations.

1. Maritime mobile service

The effective monopole radiated power and the power supplied to the antenna transmission line shall be expressed

a) for classes of emission A1A and J3E as peak envelope power, and

b) for class of emission F1B as mean power.

2. Aeronautical radionavigation service

The effective monopole radiated power for class of emission NØN/A2A (NØN prevailing) shall be expressed as carrier power.

E. GEORGE
Chairman of Committee 4

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 90-E
7 March 1985
Original: English/
French/
Spanish

COMMITTEE 6

SECOND REPORT OF WORKING GROUP 6A TO COMMITTEE 6

In accordance with the instructions received from Committee 6, the Working Group has prepared the annexed draft Resolutions concerning the steps to be taken in connection with the entry into force of the Regional Agreement.

M. MENCHEN
Chairman of Working Group 6A

Annexes: 3

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX 1

DRAFT RESOLUTION No. COM6/1 (MM)

Relating to the Application of Articles 4, 5 and 6 of the Agreement Before the Entry into Force of the Agreement

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1), (Geneva, 1985),

considering

a) that, in accordance with its agenda, it has adopted an Agreement and [2] associated Plans for the maritime mobile service and the aeronautical radionavigation service in the bands 415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz;

b) that some administrations may need to modify the characteristics of assignments appearing in the Plans or to add new assignments to the Plans or to notify assignments included in the Plans before the Agreement enters into force;

c) that some administrations may need to notify frequency assignments in the fixed service or the land mobile service in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz before the Agreement enters into force;

d) that means must be provided, before the date of entry into force of the Agreement, to permit modifications to the Plans and to ensure that the proposed uses of the primary and permitted services in the relevant bands are compatible with the Plans;

resolves

1. that, pending the entry into force of the Agreement, administrations and the IFRB shall apply the procedures set out in Article 4 of the Agreement for the modification of the Plans;

2. that, during the period concerned, administrations and the IFRB shall apply the procedures set out in Articles 5 and 6 of the Agreement for the notification, examination and recording of frequency assignments in the relevant frequency bands;

3. that the temporary provisions in the Annex to this Resolution shall be applicable during the period in question.

ANNEX TO RESOLUTION No. COM 6/1

Provisional Procedure Applicable to Frequency Assignments Notified under the Terms of Article 5 of the Regional Agreement Prior to the Date of Entry into Force of the Agreement

1. When an administration proposes to modify the characteristics of an assignment entered in the Master Register in order to make it consistent with the Plan, or when an administration wishes to bring into service an assignment in conformity with the Plan, it shall notify that assignment in accordance with Article 5 of the Agreement.

2. The IFRB shall examine such notifications relating to assignments entered in the Master Register on the date of receipt of the notification and shall inform the notifying administration of any incompatibility with assignments of other administrations it may establish.

3. The notifying adminstration shall endeavour to secure the agreement of the administrations identified under the terms of paragraph 2 above.

4. When the agreement of the administrations concerned has been obtained, the assignment may be brought into service in accordance with the Plan, and, if necessary, the corresponding assignment which has been the subject of the modification shall be deleted from the Master Register.

ANNEX 2

DRAFT RESOLUTION No. COM 6/2 (MM)

Concerning the Updating of the Master International Frequency Register with Regard to Assignments to Stations of the Planned Services and in the Planned Frequency Bands to Permit the Entry into Force of the Agreement and Associated Plans

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that, in accordance with the Agreement prepared by the present Conference, the Contracting Members have adopted [two] Plans for their maritime mobile service and aeronautical radionavigation service stations in the frequency bands 415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz;

b) that under the provisions of Article 5 of the Agreement prepared by the present Conference, the Contracting Members are required to notify the IFRB of frequency assignments to stations of the planned services before they are brought into operation;

c) that the administrations of Contracting Members and the IFRB should have a proper instrument for implementing with the least possible difficulty the Plans agreed at the present Conference;

resolves

1. that, within 90 days from the date on which the present Conference ends, the IFRB shall send to each administration a list of stations the planned service assignments entered on its behalf in the Master International Frequency Register in the planned bands. It shall at the same time send another list of the assignments entered on its behalf in the Plans adopted at the present Conference;

2. that when it sends these lists the IFRB shall request administrations to return it within 90 days a list showing the correspondence between the assignments entered in the Plans and those entered in the Master International Frequency Register;

3. that any assignment included in the Master International Frequency Register for the maritime mobile and aeronautical radionavigation services in the planned bands that has no corresponding assignment in the Plan shall be cancelled in the Register on the date of entry into force of the Agreement;

4. that, 90 days prior to the entry into force of the Regional Agreement, administrations shall notify the IFRB of the assignments in conformity with the Plan that are intended to replace the corresponding assignments entered in the Master Register;

5. that if, after examining the frequency assignments notified by administrations under the terms of paragraph 4 of this Resolution, the Board arrives at a favourable finding under No. 1241 of the Radio Regulations, these assignments shall retain the original date entered in column 2;

6. that, 30 days after the date of entry into force of the Regional Agreement, assignments entered in the Master Register for which the IFRB has not received a notice concerning the entry into service of the corresponding assignment in the Plan shall be retained in the Master Register with a remark in the appropriate column to show that the assignment in question is not entitled to any protection in relation to assignments that are in conformity with the Plan and must not cause any harmful interference to such assignments. Each administration concerned shall be advised of such action;

7. that if upon expiry of the above-mentioned period the Board receives a notice under the terms of paragraph 4 above, it shall cancel the corresponding assignment in the Master Register;

invites the IFRB

to provide administrations with all the necessary assistance in the implementation of the provisions of this Resolution.

ANNEX 3

DRAFT RESOLUTION No. COM 6/3 (MM)

Relating to the Transfer of Frequency Assignments to Stations of the Maritime Mobile Service Operating in the Bands 1 625 - 1 635 kHz, 1 800 - 1 810 kHz, 1 810 - 1 850 kHz and 2 160 - 2 170 kHz in Region 1

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that the World Administrative Radio Conference, Geneva, 1979, allocated the bands 1 625 - 1 635 kHz, 1 800 - 1 810 kHz and 2 160 - 2 170 kHz to the radiolocation service and the band 1 810 - 1 850 kHz to the amateur service;

b) that the bands mentioned in paragraph a) above were formerly allocated to the maritime mobile service;

c) that, in Resolution No. 38, the World Administrative Radio Conference, Geneva, 1979, resolved that on the date of entry into force of a frequency assignment plan for the maritime mobile service in the band 1 606.5 - 2 850 kHz the operations of fixed and mobile stations in Region 1 should cease in the bands mentioned in paragraph a) above, except with regard to the countries and bands mentioned in Nos. 485, 490, 491, 493 and 499 of the Radio Regulations;

d) that in the same Resolution the Conference resolved that replacement frequencies for stations of the maritime mobile service should be provided in the Plan referred to in paragraph c) above, together with the arrangements for their implementation;

e) that the present Conference adopted a Regional Agreement to which are annexed frequency plans for stations of the maritime mobile service in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz which contain the replacement frequencies mentioned above;

resolves

[1. that, as soon as possible after the present Conference, the IFRB shall send to the administrations in Region 1 the extracts from the Master Register which contain the frequency assignments to stations of the maritime mobile service which are entered on their behalf in the bands 1 625 - 1 635 kHz, 1 800 - 1 810 kHz, 1 810 - 1 850 kHz and 2 160 - 2 170 kHz;]

[2. that, within a period of 90 days following the dispatch of the above-mentioned extracts, each administration shall return a copy of the extract showing opposite each assignment the frequency in the Plan to which the assignment will be transferred;]

[3. that, 90 days before the date of entry into force of the Regional Agreement, the administrations shall notify the IFRB of the assignments in conformity with the Plan which are to replace the assignments mentioned in paragraph 1 above;]

4. that the provisions of Resolution No. COM6/1 relating to the provisional procedure to be applied during the interval between the end of the present Conference and the date of entry into force of the Regional Agreement shall be applicable with regard to the transfer of assignments to stations of the maritime mobile service operating in the bands 1 625 - 1 635 kHz, 1 800 - 1 810 kHz, 1 810 - 1 850 kHz and 2 160 - 2 170 kHz;

5. that if after examination of frequency assignments notified by administrations under the terms of this Resolution, the Board arrives at a favourable finding under No. 1241 of the Radio Regulations, these assignments shall retain the original date entered in column 2;

6. that, on the date of entry into force of the frequency assignment Plan for stations of the maritime mobile service annexed to the Regional Agreement adopted by the present Conference, the continued use of the frequency assignments to stations of the maritime mobile service which have not been transferred in accordance with the provisions of paragraph 1 above shall be only on the basis of No. 342 of the Radio Regulations.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 91-E
7 March 1985
Original: French/English

COMMITTEE 6

NOTE FROM THE CHAIRMAN OF WORKING GROUP 6A
TO COMMITTEE 6

Following the decision taken by Committee 6 to include the channelling arrangement in an annex to the Agreement, it is proposed to Committee 6 to include the additional paragraph appearing in the annex to Article 4 of the draft Agreement.

M. MENCHEN
Chairman of Working Group 6A

Annex: 1

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ANNEX

4bis) The IFRB shall examine the information received from the view point of its conformity with the channelling arrangement contained in annexes / / to this Agreement. Proposed modifications which are not in conformity with the appropriate channelling arrangement are returned to the administration concerned.

INTERNATIONAL TELECOMMUNICATION UNION
REGION 1
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 92-E
7 March 1985
Original: English

COMMITTEE 5

REPORT OF 5 AD HOC 4 TO COMMITTEE 5

Attached please find the draft Recommendation relating to the replacement of the world-wide maritime mobile frequency 425 kHz by ship stations as adopted at the first meeting of 5 ad hoc 4. Since no information was available, no replacement frequency has been included in the draft Recommendation.

The representative of Greece supported by the representative of ITF reserved its position with regard to this draft Recommendation.

A.R.VISSER
Chairman of ad hoc 4

Annex: 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX

DRAFT RECOMMENDATION NO. COM 5/A

Relating to the replacement of the world-wide maritime mobile working frequency 425 kHz for ship stations

The Regional Administrative Radio Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that the World Administrative Radio Conference, Geneva, 1979 allocated the frequency band 415 - 435 kHz in Region 1 to the aeronautical radionavigation service on a primary basis and to the maritime mobile service on a permitted basis;

b) that the World Administrative Radio Conference for the Mobile Services, Geneva, 1983 resolved that a Regional Administrative Radio Conference for Region 1 should be convened in 1985 to prepare frequency assignment plans for the aeronautical radionavigation service in the frequency bands 415 - 435 kHz and 505 - 526.5 kHz, and for the maritime mobile service in the frequency bands 415 - 435 kHz and 435 - 510 kHz;

further considering

c) that this Conference has established a frequency assignment plan for aeronautical radiobeacons in the band 415 - 435 kHz in Region 1;

d) that the possibilities for the maritime mobile service for using frequencies from this band are limited;

e) that this Conference decided that in the maritime mobile service only coast stations should be allowed to use frequencies from this band;

f) that it would not be practicable if the frequency 425 kHz was allowed to continue on a world-wide basis as a ship working frequency for radiotelegraphy in accordance with the permitted allocation to the maritime mobile service in this band and with No. 4237 of the Radio Regulations;

g) that this Conference decided that the frequency [ ] should replace the frequency 425 kHz;

h) that the revision of No. 4237 was not within the agenda for this Conference;

resolves

1) to invite all administrations to cease to authorize the use of the frequency 425 kHz by ship stations in Region 1 on and from the date of coming into force of the plan for aeronautical radiobeacons in the band 415 - 435 kHz (viz .....);

2) to invite all administrations to authorize their ship stations to use the frequency [ ] as a working frequency to supplement those others mentioned in No. 4237 of the Radio Regulations;

recommends

that the Conference for the mobile services planned for 1987 should be authorized to review and revise No. 4237 of the Radio Regulations in order to delete the frequency 425 kHz therefrom and to replace it by the frequency [ ] kHz;

invites

the Administrative Council to ensure that the Conference for the mobile services planned for 1987 will be competent to review and revise No. 4237 of the Radio Regulations;

requests

the Secretary-General to bring this Recommendation to the attention of all administrations.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 93-E
12 March 1985
Original: English

COMMITTEE 4

SUMMARY RECORD

OF THE

EIGHTH MEETING OF COMMITTEE 4

(TECHNICAL)

Thursday, 7 March 1985, at 0900 hrs

Chairman: Mr. E. GEORGE (Federal Republic of Germany)

Subjects discussed:	Documents
1. Expression of power in terms of carrier (pZ, PZ), mean (pY, PY) and peak envelope (pX, PX) power for A1A, NØN/A2A, F1B and J3E emissions	DT/15
2. Note from the Chairman of Committee 5 to Committees 4 and 6 (protection ratio in the aeronautical radionavigation service for a channel spacing of 500 Hz)	80, DT/14, DT/18
3. Approval of the summary records of the first, second, third, fourth, fifth, sixth and seventh meetings	45, 54, 57, 59, 67, 68, 69

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

1. Expression of power in terms of carrier (pZ, PZ), mean (pY, PY) and peak envelope (pX, PX) power for A1A, NØN/A2A, F1B and J3E emissions (Document DT/15)

1.1 The Chairman drew attention to paragraph 9 (transmitting power) of Annex I to Document DT/15.

After a brief discussion it was agreed that, in line with RR Appendix I, section F, sub-section II, column 8, peak envelope power should be used for A1A and J3E emissions, mean power for F1B, and carrier power for NØN/A2A (NØN prevailing).

2. Note from the Chairman of Committee 5 to Committees 4 and 6 (protection ratio in the aeronautical radionavigation service for a channel spacing of 500 Hz) (Documents 80, DT/18)

2.1 The Chairman drew attention to the request contained in the third paragraph of Document 80 and to the graph in the Annex to Document DT/18, which he had prepared as a possible solution.

2.2 The delegate of Portugal suggested that the protection ratio for 1.5 kHz separation should be 2.5 dB rather than 2 dB.

2.3 The delegate of the United Kingdom proposed 3 dB.

2.4 The delegate of Sweden said that the adoption of values for 0.5 kHz might have an impact on the outcome of calculations carried out under the Swedish program.

2.5 After prolonged discussion, the Chairman, supported by the delegate of the Federal Republic of Germany, urged the Committee to accept the protection ratio of 2 dB for 1.5 kHz separation.

It was so agreed.

It was further agreed that for 500 Hz separation the protection ratio should be 15 dB (in line with ICAO Regulations); that there was no need to specify a protection ratio for the separation range between 500 Hz and 1 kHz; and that for 2.5, 3.5, 4.5 and 5.5 kHz separation the ratios should be as indicated in the graph in Document DT/18.

3. Approval of the summary records of the first, second, third, fourth, fifth, sixth and seventh meetings (Documents 45, 54, 57, 59, 67, 68, 69)

The summary records of the fourth, fifth, sixth and seventh meetings were approved as amended (see corrigenda to Documents 59, 67, 68 and 69).

The meeting rose at 1030 hours.

The Secretary: The Chairman:

O. VILLANYI E. GEORGE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 5

SUMMARY RECORD

OF THE

FIFTH MEETING OF COMMITTEE 5

(PLANNING)

Tuesday, 5 March 1985, at 1530 hrs and at 1900 hrs

Chairman: Mr. T. BØE (Norway)

Subjects discussed:	Documents
1. Modifications of the requirements after the first planning exercise	-
2. Reports by Chairmen of Working Groups 5A and 5B (results of the first planning exercise, eventual need of review of the decisions related to the planning method, organization of the remaining tasks)	36, 63

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1. Modifications of the requirements after the first planning exercise

1.1 The Chairman said that modification of requirements should be handed in to the Secretariat by 1800 hours on Wednesday, 6 March.

1.2 The representative of the IFRB confirmed that green modification sheets were available and requested that administrations should submit their modifications as soon as possible.

1.3 The delegate of Spain requested clarification as to what information could be submitted on the forms. He drew attention to the fact that certain requirements submitted in due form appeared neither in the planning list nor in the column indicating that no frequency had been assigned.

1.4 The delegate of Sweden said that deletions of requirements were acceptable without any problem as were material errors and any modifications which would facilitate planning.

1.5 In reply to a question from the delegate of Greece, the representative of the IFRB said that any modifications likely to make planning more difficult should be submitted only with the approval of the Chairman of the appropriate Planning Group. The signature of the Chairman of Committee 5 was unnecessary.

1.6 The delegate of Denmark explained that the Planning Group had been able to consider only about half of the requirements in the 2 MHz band as yet. The others would be dealt with in due course.

1.7 The delegate of Tunisia pointed out that some of the frequencies requested by his Administration for official radio maritime stations were not included in the Plan.

1.8 The Chairman explained that, due to a misunderstanding, the requirements had not been included in the first computer run. They would, however, be taken into account in the second run. The question of requirements which could not be included in planning would have to be considered once the results of the second computer run were available.

1.9 The delegate of Greece requested that the deadline for submission should be extended until noon on Thursday, 7 March.

1.10 The Chairman suggested that the deadline should be postponed only in exceptional cases.

It was so agreed.

He said that the second computer run, to be completed by noon on Monday, 11 March, would be an optimalization of the first run. The results of the second run would be subjected to analysis for assignments under the footnote to RR 483 and any incompatibilities would be noted in an information document to the Conference.

2. Reports by Chairmen of Working Groups 5A and 5B (results of the first planning exercise, eventual need of review of the decisions related to the planning method, organization of the remaining tasks) (Documents 36, 63)

2.1 The delegate of Algeria suggested that any reference to a review of planning methods should be deleted; in his view, the methods adopted were quite appropriate.

2.2 The Chairman, while agreeing that the methods were suitable, drew attention to Document 63, submitted by the Committee, which stated that several administrations had reserved the right to revert to the subject, once the first results of the planning process were available.

2.3 Pending the issue of a written report, the Chairman of Working Group 5A gave an oral report on the outcome of the work of Sub-Groups 5A-1 and 5A-2.

2.4 The Chairman of Working Group 5B reported on the work of Planning Groups 5B-1 and 5B-2 (see Document 75 distributed subsequently).

2.5 The delegate of the USSR posed a number of questions relating to points of detail and specific technical problems.

At the suggestion of the Chairman, it was agreed that those points should be passed to Working Groups 5A and 5B.

2.6 The delegate of Switzerland asked whether the transfer of five of its seven requirements for aeronautical radionavigation beacons in the 500 kHz band to the 300 kHz band was really necessary or simply due to the filling up of channels in the primary band before proceeding to the permitted band.

At the suggestion of the delegate of the Netherlands, he agreed that an attempt should be made in the second planning exercise to accommodate the five requirements in question in the 500 kHz band.

The meeting was suspended at 1700 hours and resumed at 1900 hours.

2.7 In reply to further questions by the delegate of the USSR, the Chairman of the IFRB explained that assignments for Regions 2 and 3 would not appear in the Plan itself, although they might appear in the printout forming part of the analysis of the planned assignments as against entries in the Master Register. The final plan would include only assignments made under the maritime mobile plan or the aeronautical radionavigation plan for Region 1.

2.8 The delegate of the Federal Republic of Germany, in reply to the USSR delegate's question on digital selective calling, said CCIR Report 908, based on traffic statistics, indicated that in the 500 kHz band there would be need for one international channel and three national, or group, channels. In the 2 MHz band, one international and eight national, or group, channels would be necessary. The national channels could be distributed in a similar way as for HF AlA calling (Appendix 34 of the Radio Regulations), and by groupings similar to those indicated in Resolution No. 312 of the Radio Regulations.

2.9 The delegate of Sweden pointed out that Committee 5 had already taken a decision, as recorded in Document 63, paragraph 2.5.1, to use the channelling arrangement for the maritime mobile service described in Document NOR/S/15/11, which gave a full description of the channelling arrangement, and that arrangement did not include the 450 - 461 kHz band. Nor had the channels enumerated in Appendix 1 of Resolution No. 704 in that band been included in the arrangement, in order to ensure that they could be used for inter-ship working, as well as for ship stations and coast stations, in cases where the planned channels were for some reason not appropriate.

2.10 The delegate of the USSR, supported by the delegates of Bulgaria and Poland, said the decision on channelling arrangements recorded in paragraph 2.5.1 of Document 63 was not justified and he maintained his proposal that it be amended to include the 450 - 461 kHz band.

After further discussion between the delegates of Denmark, Sweden, the USSR, Algeria, the Netherlands and Spain and the representative of the ITF, it was agreed that an ad hoc Group, consisting of the delegates of the USSR, Sweden, Poland, Spain and Denmark, under the Chairmanship of the delegate of Algeria, should meet to consider the USSR proposal for revised channelling arrangements.

2.11 In reply to another point raised by the delegate of the USSR, the delegate of Sweden said that several coast stations had been assigned channels with only 0.5 kHz separation simply because the selectivity criterion adopted by the Conference was such that attenuation of the unwanted channel was sufficient for acceptable recognition of the desired signal. Since it was agreed that the shortest interference distance between a coast station and a ship receiver should be 10 nautical miles, it was possible to assign adjacent channels to stations which were within a similar range of one another.

2.12 In reply to a question raised by the delegate of Bulgaria, the Chairman drew attention to paragraph 5 of Document 63, which stated that the incompatibility analysis program offered by the IFRB would produce incompatibility results between plan assignments and existing assignments recorded in the Master Register for other than planned services. It was hoped that that program would be carried out after the computer run the following week.

The meeting was suspended at 2020 hours and resumed at 2110 hours.

2.13 The Chairman of the ad hoc Group said that the Group had agreed to propose that the first seven frequencies in the band 450 - 453 kHz inclusive should be reserved for simplex communications to be planned between the administrations which submitted requirements.

It was so agreed.

2.14 In view of the narrowness of the band and the possible difficulty of meeting all requirements, the Group proposed that the range of stations assigned frequencies in those bands should be reduced to a distance to be defined.

2.15 The Chairman suggested that a range of 50 nautical miles be adopted as a basis for work the following day.

It was so agreed.

2.16 It was further agreed that the question of possible interference to ship stations be referred to the Planning Groups due to meet the following day.

2.17 At the proposal of the Chairman, it was agreed to set up Working Group 5 ad hoc 3 under the Chairmanship of Mr. M. Barranco (Spain) with the following terms of reference:

> "On the basis of the decisions taken and discussions in Committee 5 to prepare plans for the use of DSC in the 500 kHz and 2 MHz bands."

2.18 The delegate of the Netherlands said it was also necessary to decide for the 500 kHz bands whether to use 0.5 kHz instead of 1 kHz channelling for aeronautical radiobeacons. He agreed that when the planning exercise for the aeronautical radionavigation service had been carried out it had been based on 1 kHz channelling. It had been found, however, that a number of administrations had requested assignments to radiobeacons on 0.5 kHz points, mainly as a result of ICAO precoordination. 0.5 kHz frequencies had been inserted in the planning exercise and he thought that provision should be made for them to appear in the Plan.

2.19 The delegate of the United Kingdom, supported by the delegate of the Federal Republic of Germany, said that a number of problems would arise with 0.5 kHz channel spacing since much of the older equipment could not cope with it. It was therefore inadvisable to introduce it for general use but he thought that for those countries in which it could work, it should be permitted.

2.20 After further discussion, in which the Chairman of the IFRB pointed out that in the technical criteria proposed by Committee 4 (Document DT/14) no protection ratio had been developed for the 500 kHz band. The delegate of the Netherlands said that if channelling was restricted to 1 kHz spacing it might increase the number of unfulfilled requirements. It was agreed to add the following text to the technical annexes of the Agreement:

> "In exceptional cases interleaved channels at 500 kHz may be used provided they do not adversely affect any assignment operating on 1 kHz channels for national use."

2.21 The Chairman said that that text would be submitted to Committee 6, and Committee 4 would be invited to consider the question of protection ratios.

2.22 The delegate of the Netherlands said that the Planning Group should be given further instructions on what requirements to include in the exercise if a planning run for the maritime mobile service in the 415 - 435 kHz band was to be carried out.

2.23 The delegate of Finland, strongly supported by the delegates of Sweden, the Netherlands and Greece, said that if the 415 - 435 kHz band was used for the maritime mobile service in the simplex mode, he doubted whether there would be sufficient protection for the aeronautical radionavigation service from harmful interference from ship stations. It would be preferable not to have ship stations transmitting on that band; he suggested that they might use existing international ship transmitting frequencies elsewhere in the band as defined in Radio Regulation No. 4237. Those frequencies were 425, 454, 468 and 480 kHz. It had already been decided that 425 kHz should be replaced by another frequency.

2.24 The Chairman said that consequently ship stations would use
454, 468 and 488 kHz as duplex frequencies.

It was so agreed.

The meeting rose at 2210 hours.

The Secretary: The Chairman:

G. KOVACS T. BØE

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 6

NOTE BY THE CHAIRMAN OF COMMITTEE 6

In accordance with the request of Committee 6, I hereby submit, in the annex hereto, the Note by the Legal Adviser, the contents of which he first presented orally to Committee 6 at its fourth meeting and thereafter supplemented in the light of Committee's 6 discussions at that meeting.

S. CHALLO
Chairman of Committee 6

Annex: 1

For reasons of economy, this document is printed in a limited number of copies. Participants are therefore kindly asked to bring their copies to the meeting since no others can be made available.

ANNEX

Note by the Legal Adviser on Legal comments and suggestions concerning the abrogation of the European Regional Convention for the Maritime Mobile Radio Service, Copenhagen, 1948 and of the Copenhagen Plan annexed to that Convention

1. First of all, it has to be taken into account that the agenda and the mandate of the present Conference as contained in AC Resolution No. 897 does not speak of the matter of the abrogation of the 1948 Copenhagen Convention and the Plan annexed thereto.

2. Secondly and most importantly, it is recalled that Article 6 of the 1948 Copenhagen Convention deals with the matter of "Abrogation of the Convention and of the Plan" and stipulates as follows :

> "1. This Convention and Plan shall be abrogated between all the contracting Governments as from the entry into force of a new Convention. The Plan shall be abrogated as from the entry into force of a new Plan.
>
> 2. In the event of a contracting Government not approving a new Plan, the Convention shall be abrogated in relation to such Government as from the entry into force of the new Plan."

3. In view of the foregoing provisions, it has to be retained that the 1948 Copenhagen Convention deals already in clear, precise and unequivocal terms with its own abrogation which will be automatic "as from entry into force of a new Convention" and "... of a new Plan".

4. The fact that the present Conference is called upon "to establish an agreement ..." and not a "Convention" is immaterial. Both terms are interchangeable and mean the same thing, i.e. a "treaty" in the sense of the Vienna Convention on the Law of Treaties of 1969, which defines a "treaty" as "an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation" (see Article 2, paragraphe 1, sub-paragraph (a) of that Convention; emphasis added). It is equally immaterial that the 1948 Copenhagen Convention required ratification and the deposit of instruments of ratification (see Article 4 of the 1948 Copenhagen Convention), because of "'ratification', 'acceptance', 'approval' and 'accession' mean in each case the international act

so named whereby a State establishes on the international plane its consent to be bound by a treaty" (see Article 2, paragraph 1., sub-paragrah (b) of the Vienna Convention on the Law of Treaties 1969; emphasis added). Therefore, not the denomination and the form but the international act itself establishing the consent to be bound by a treaty is alone essential.

5. On the basis of what has been pointed out in paragraphs 3. to 5. above, it can be concluded and confirmed, from the strictly legal point of view, that indeed no action would have to be taken by the present Conference with regard to the abrogation of the 1948 Copenhagen Agreement and the Copenhagen Plan annexed thereto, which both will automatically be abrogated as from the entry into force of the new Agreement and associated Frequency Assignment Plans to be adopted by the present Conference.

6. Thirdly, however, it can not be overlooked that both Resolution No. 7 of the Nairobi Plenipotentiary Conference and Resolution No. 704 (Mob-83) take up the matter of adoption of instrument(s) for the abrogation of the 1948 Copenhagen Convention and the Plan annexed thereto, but addressed this matter respectively to the "Parties" thereto and the "administrations concerned" and not to the present Conference itself.

7. If the Conference, because of the above third consideration (contained in paragraph 6. above), would like, though legally not needed, to address the matter of the abrogation of the 1948 Copenhagen Convention and the Plan annexed thereto, then I should advise the Conference to do so rather in the preamble to the agreement to be adopted by it than in a specific article or paragraph of the agreement itself, because of this abrogation issue not figuring in the terms of the Conference's agenda and mandate (see the first consideration in paragraph 1. above).

8. At the end of the preamble, the text could read as follows (the relevants parts are underlined below) :

"..., have adopted, subject to the approval of the competent autorities of their respective countries, the following provisions and the related Plans concerning... in the bands .. and consider the present Agreement and the related Plans as appropriate instruments to abrogate the European Regional Convention for the Maritime Mobile Radio Service, Copenhagen, 1948, and the Copenhagen Plan annexed thereto, which both, in accordance with the provisions of Article 7 of that Convention, shall be abrogated as from the entry into force of the present Agreement and the Plans annexed hereto and replaced by the latter."

9. This way suggested above to deal with the matter would comply with the invitation addressed to the "Parties" to, and the "administrations concerned" by, the earlier Convention and its associated Plan, as stipulated respectively in Resolution No. 7 of the Union's Nairobi Plenipotentiary Conference and in Resolution No. 704 (Mob-83).

10. If, however, the Conference wishes to deal with the matter by way of inclusion of an appropriate Article on the subject in the Agreement, the title and the text of Article 13, at present figuring in Conference Document No. 76, would require some amendments, as they speak only of the "replacement of the Copenhagen Plan 1948" and not of the Copenhagen Convention itself which both are to be treated on an equal footing as far as their abrogation is concerned, in accordance with the terms of Article 7 of the 1948 Copenhagen Convention which, I stress once again, provides already for the automatic abrogation of both these instruments.

11. It is, therefore, in this case suggested that the revised Article 13 (see Document No. 76) reads as follows :

"ARTICLE 13

Abrogation and Replacement of the Copenhagen Convention, 1948 and the Copenhagen Plan annexed thereto

The present Agreement and the Plan annexed hereto are considered to be the appropriate instruments to abrogate the European Regional Convention for the Maritime Mobile Radio Service, Copenhagen, 1948, and the Copenhagen Plan annexed thereto, which both, in accordance with the provisions of Article 7 of that Convention, shall be abrogated as from the entry into force of the present Agreement and the Plans annexed hereto and replaced by the latter."

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

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7 March 1985
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COMMITTEE 6

REPORT OF THE AD HOC GROUP OF WORKING GROUP 6A

TO COMMITTEE 6

When Working Group 6A considered item 3 of its agenda at its fifth meeting, it decided to set up an ad hoc Group comprising representatives of the delegations of Algeria, the Federal Republic of Germany, the Netherlands and the USSR, as well as a representative of the IFRB, to study the text of paragraph 30 of the draft Agreement and prepare a draft Recommendation concerning the cancellation of assignments entered in the Plan but no longer required by administrations. The Group was instructed to report directly to Committee 6.

The ad hoc Group, in which the Chairmen of Committee 6 and Working Group 6A also took part, unanimously adopted the following texts which are submitted to Committee 6 for consideration.

Annex 1: Revised text of paragraph 30 and new paragraph 30bis.

Annex 2: Draft Recommendation No. COM 6/D.

N. BOUHIRED
Chairman of the ad hoc Group

Annexes: 2

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ANNEX 1

30. If, after a period of two years following the date of entry of an assignment in the Plan, as a result of the application of the procedure contained in this Article, the IFRB has not received a notice relating to its bringing into use, that assignment shall be cancelled from the Plan. Before taking such action, the Board shall consult with the administration concerned on the appropriateness of such a deletion and if the circumstances so warrant, the cancellation may be postponed for a maximum period of six months.

30bis. Every three years, the Board shall consult administrations of Contracting Members with a view to drawing their attention to Recommendation No. COM 6/D and to request them to cancel assignments appearing in the Plan adopted by the Conference and which are no longer required; the Board shall also inform Contracting Members of the results of these consultations.

ANNEX 2

DRAFT

RECOMMENDATION No. COM 6/D (MM)

relating to the deletion from the Plan of assignments which are no longer required

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that, in accordance with its agenda, the Conference established Plans for the maritime mobile service and the aeronautical radionavigation service in the bands 415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz;

b) that the Conference included in these Plans the requirements communicated by administrations without taking account of the date by which they will be brought into use;

c) that the Conference did not consider appropriate to fix a period for the validity of the Plan;

d) that during the years following the adoption of the Plans by the Conference, administrations may need to modify their projected uses of the planned bands;

e) that, at the same time, administrations might need additional assignments;

f) that the Conference adopted Article 6 of the Agreement applicable to frequency assignments to stations of the other services to which the planned bands are also allocated on a primary or permitted basis;

g) that the Conference requested the IFRB to consult periodically administrations of their intentions with respect to the bringing into use of the assignments appearing in the Plans,

urges administrations

1. to inform the IFRB as soon as possible in order to cancel from the Plan concerned any assignment appearing in one of the Plans which they no longer require;

2. to review their assignments appearing in the Plans when they are consulted by the IFRB in application of paragraph 30bis of the Agreement and to request it to cancel from the Plan concerned those assignments which they no longer require.

INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE PLANNING OF FREQUENCIES FOR MARITIME RADIOBEACONS IN THE EUROPEAN MARITIME AREA

GENEVA, MARCH 1985

EUROP.

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REGION 1

INTERNATIONAL TELECOMMUNICATION UNION

RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1

GENEVA, FEBRUARY/MARCH 1985

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COMMITTEE 3

SUMMARY RECORD

OF THE

SECOND MEETING OF RARC MM-R1 COMMITTEE 3

AND

FIRST MEETING OF RARC EMA COMMITTEE 3

Tuesday, 5 March 1985, at 1000 hours

Co-Chairmen : Mr. S.S. EL BASHEER (Saudi Arabia) (MM-R1)
Mr. P. CAREY (Ireland) (EMA)

Document

Subjects discussed :

1.	Summary record of the first meeting of RARC MM-R1 Committee 3	66
2.	Final Acts of the two Conferences	18 - 1009
3.	Position of accounts of the two Conferences	71 - 1025
4.	Other business	

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1. Summary record of the first meeting of RARC MM-R1 Committee 3 (Document 66)

1.1 Document 66 was adopted without comment.

1.2 However, the Secretary of the Committee drew the attention of delegates to Document DT/1002, whereby Documents 1009, 1010, 1011 and 1014 were assigned to the Committee, and said that the documents in question had been examined at the first meeting of Committee 3 under Nos. 19, 20, 25 and 33.

2. Finals Acts of the two Conferences (Document 18 - 1009)

2.1 The Secretary presented Document 18 - 1009 which, he said, pointed out that it was for the Plenary Meetings to determine the share of expenditure to be borne by the supplementary publications budget and by the Conferences budget respectively, and for the Budget Control Committee to submit a proposal on the matter .

2.2 The Chairman said that those proposals would be embodied in the final report of Committee 3 to the two Plenary Meetings.

3. Position of accounts of the two Conferences (Document 71 - 1025)

3.1 The Secretary said that the position as regards expenditure at 28 February 1985 revealed a surplus of 142,500 Swiss francs over the budget approved by the Administrative Council, as adjusted.

3.2 The credits adopted would be sufficient to meet the cost of both Conferences and the final surplus should be greater.

3.3 Moreover, the next statement of accounts would the changes introduced in the United Nations common system of salaries and allowances with effect from 1 March 1985.

3.4 The Chairman noted with satisfaction the savings made in the expenditure for the two Conferences.

3.5 The Committee noted Document 71 - 1025.

4. Statement of expenses incurred for the preparatory work by the IFRB for RARC MM-R1 and RARC EMA (Document 74 - 1030)

4.1 Document 74 - 1030 was examined following a question raised by the United Kingdom delegate.

4.2 The Chairman of the IFRB said that it had been impossible to identify IFRB requirements during preparations for the two Conferences. The IFRB was seeking a token contribution of 30,000 Swiss francs from the Conference budget to offset part of its equipment purchasing costs.

4.3 The United Kingdom delegate asked whether that amount was to cover costs incurred over and above those estimated by the IFRB for the two Conferences.

4.4 The Chairman of the IFRB explained that no credits had been included in the Conference budget for preparatory work by the IFRB ; that was why the IFRB was requesting an allocation of 30,000 Swiss francs.

4.5 The Secretary proposed that, in view of the credits available, that amount should be charged to the budget of the two Conferences and credited as unforeseen income in the accounts for 1985.

4.6 The Secretary's proposal was approved. The request by the IFRB in Document 1030 was accepted.

5. Other business

5.1 The Secretary pointed out that, during the consideration at the first meeting of Committee 3 of Document 20 concerning the financial responsibilities of Administrative Conferences, the Chairman of Committee 3 had been requested to send a note to the Chairmen of Committees 4 and 5 drawing their attention to the possible financial implications of the decisions taken.

He asked the Chairman of RARC-EMA Committee 3 whether such a note should also be addressed to the Chairmen of RARC-EMA Committees 4 and 5.

The Chairman said that a similar note should also be sent to the Chairmen of both those Committees.

5.2 The Secretary pointed out that four international organizations had applied to participate in the work of RARC-EMA (Document 1019). Since one of those organizations, namely the International Association of Lighthouse Authorities (IALA) was not exempted, it had been requested to state its class of contribution.

The meeting rose at 1035 hours.

The Secretary :

R. PRELAZ

The Chairmen :

S.S. AL-BASHEER (RARC MM-R1)

P. CAREY (RARC EMA)

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 98-E
8 March 1985
Original: English

COMMITTEE 6

NOTE BY THE CHAIRMAN OF COMMITTEE 6

As agreed by Committee 6 at its fourth meeting in the afternoon of 7 March 1985, a revised text of the technical annexes to the Agreement (see Document 82) has been prepared and is attached for consideration by Committee 6.

S. CHALLO
Chairman Committee 6

Annexes: 3

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ANNEX A

Technical parameters used in establishing frequency assignment plans in Region 1 for the maritime mobile service in the bands 415 - 435 kHz, 435 - 526.5 kHz, 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz and for the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz

1. Maritime mobile service

1.1 Designations of emission[1]

The Plan for the maritime mobile service was established for the following designations of emission in accordance with the channel arrangements as indicated in Annex [ ].

1.1.1 Morse telegraphy, designation of emission 100HA1A, bands 415 - 435 kHz and 435 - 526.5 kHz.

1.1.2 Narrow-band direct printing (transmission rate 100 bauds, frequency deviation ±85 Hz), designation of emission 304HF1B and digital selective calling (transmission rate 100 bauds, frequency deviation ±85 Hz), designation of emission 304HF1B in the bands 435 - 526.5 kHz, 1 606.5 - 1 625 kHz and 2 045 - 2 160 kHz.

1.1.3 Single-sideband telephony (upper sideband), designation of emission [2.4] [2.7] [2.8] KJ3E in the bands 1 635 - 1 800 kHz and 2 045 - 2 160 kHz.

1.2 Propagation

1.2.1 Ground-wave propagation[2]

Ground-wave propagation was calculated according to CCIR Recommendation 368-4 for propagation over sea water, average salinity, 20°C, σ = 5S/m and ε = 70. For the bands 415 - 435 kHz, 435 - 526.5 kHz and above 1 606.5 kHz the curves for 400 kHz, 500 kHz and 2 MHz, respectively, were used. The curves applied are given in Figure 1; they refer to an e.m.r.p. of 1 kW.

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1 Information is required from Committee 5 as to the inclusion of R3E emissions.

2 To be modified should sections 1.2.2 and 1.2.3 be deleted.

[1.2.2 Sky-wave propagation

Sky-wave propagation was calculated according to CCIR Recommendation 435-4 for midnight conditions. Polarization coupling loss and sea gain were not taken into account. Field strengths produced by coast stations situated north of and on parallel 20° North and south of parallel 20° North were calculated for geomagnetic latitudes 50° North and 30° South, respectively.

For the bands below 526.5 kHz and above 1 606.5 kHz the curves were calculated for 500 kHz and 1 800 kHz, respectively. They are given in Figure 2 and refer to an e.m.r.p. of 1 kW.]

[1.2.3 Application of ground- and sky-wave propagation

The ground-wave field strength was used to determine the coverage area and, where no night-time protection was required, also the interference range. The maximum of ground- and sky-wave field strength was used to determine the interference range where night-time protection was required.]

1.3 Minimum field strength to be protected

The following values of the minimum field strength to be protected, which include allowances for variations in noise level with time and signal fading with time, were applied:

1.3.1 Class of emission A1A

Bands 415 - 435 kHz and 435 - 526.5 kHz:

36.5 dB(μV/m) north of and on parallel 30° North, and
56.5 dB(μV/m) south of parallel 30° North.

1.3.2 Class of emission F1B

Since the emission characteristics of narrow-band direct printing and digital selective calling are essentially the same, they require the same minimum field strength to be protected.

Band 435 - 526.5 kHz:

31.5 dB(μV/m) north of and on parallel 30° North, and
51.5 dB(μV/m) south of parallel 30° North.

Bands 1 606.5 - 1 625 kHz and 2 045 - 2 160 kHz:

22.5 dB(μV/m) north of and on parallel 30° North, and
42.5 dB(μV/m) south of parallel 30° North.

1.3.3 Class of emission J3E

Bands 1 635 - 1 800 kHz and 2 045 - 2 160 kHz:

37 dB(μV/m) north of and on parallel 30° North, and
57 dB(μV/m) south of parallel 30° North

1.4 Protection ratio

The following values of protection ratio (see Radio Regulation 164) were applied:

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB		
	Wanted signal		
	A1A interfering signal A1A or F1B	F1B interfering signal F1B or A1A	J3E interfering signal J3E
0	8	8	20
0.5	-13	-38	
1.0	-26	-62	
1.5	-42		
2.0	-60		
3.0			-25
6.0			-50

Note - Since the emission characteristics of narrow-band direct printing (class of emission F1B) and digital selective calling (class of emission F1B) are essentially the same, they have the same interference potential and require the same protection ratios.

1.5 Multiple interference

For a given compatibility calculation only the interference contribution from the strongest interfering signal was considered.

1.6 Channel spacing

1.6.1 Planning was based on a channel spacing of 0.5 kHz for A1A and F1B emissions.

1.6.2 Planning was based on a channel spacing of 3 kHz for J3E emissions.

1.7 Trasmitted power

The effective monopole radiated power (e.m.r.p., see Radio Regulation 157) was derived from the minimum field strength to be protected at the edge of the coverage area. The power supplied to the antenna transmission line was derived from the e.m.r.p. by applying the following typical values of antenna gain (see Radio Regulation 154) relative to a short vertical antenna, which include the loss of the antenna coupling unit:

1.7.1 Bands below 526.5 kHz: -7 dB;

1.7.2 Bands above 1 606.5 kHz: -4 dB.

1.8 Further considerations

Due to constraints in the available computer program, the computer analysis of the plan could neither take account of propagation over mixed land/sea paths nor of a more sophisticated method of sky-wave field strength prediction. These factors were, however, taken into consideration by administrations in a case by case analysis, when solving incompatibilities during the Conference.

[In general], omnidirectional antennas were assumed. [However, on a case by case basis, directional antennas were taken into consideration, which increased the sharing possibilities.]

2. Aeronautical radionavigation service

2.1 Designation of emission

The Plan for the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz was established on the basis of class of emission NØN, however, it will indicate only the classes of emission used during the transmission of the identification signal (A1A, A2A, etc.). Two types of beacon with class of emission A2A are generally used, i.e. with modulation frequencies of 400 Hz (±25Hz) and 1 020 Hz (±50 Hz).[1]

2.2 Propagation

The ground-wave mode of propagation only was used. Ground-wave field strength was calculated according to CCIR Recommendation 368-4 for propagation over wet ground, o = 10-2 S/m, ε = 30. For the bands 415 - 435 kHz and 505 - 526.5 kHz the curves for 400 kHz and 500 kHz, respectively, were used. They are given in Figure 3 and refer to an e.m.r.p. of 1 kW.

For propagation over mixed land/sea paths see section 2.8.

---

1 The list of requirements contains different classes of emission from which no rule can be developed for the determination of the necessary bandwidth. Further information is required from Committee 5.

2.3 Minimum field strength to be protected

The following values of the minimum field strength to be protected (see also Radio Regulations 2856 and 2857) were applied:

2.3.1 37 dB(μV/m) for stations north of parallel 30° North and south of parallel 30° South;

2.3.2 41.6 dB(μV/m) for stations between parallels 30° North and 30° South.

2.4 Protection ratio

The following values of protection ratio (see Radio Regulation 164 and also 2854) were applied:

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB
0	15
0.5	15
1	9
1.5	2
2	-5
2.5	-12.5
3	-20
3.5	-27.5
4	-35
4.5	-42.5
5	-50
5.5	-57.5
6	-65

2.5 Multiple interference

For a given compatibility calculation only the interference contribution from the strongest interfering signal was considered.

2.6 Channel spacing

Planning was based on a channel spacing of 1 kHz. However, in exceptional cases, for national use, interleaved channels at 0.5 kHz were also used, provided that this did not adversely affect the assignment in the Plan on integer multiples of 1 kHz.

2.7 Transmitted power

The effective monopole radiated power (e.m.r.p., see Radio Regulation 157) was derived from the minimum field strength to be protected at the edge of the coverage area.

2.8 Further considerations

Due to constraints in the available computer program, the computer analysis of the plan could not take account of propagation over mixed land/sea paths. Section 2.2 indicates that the propagation characteristics were predicted as for "wet ground" and thus when a significant fraction of the path from an interfering emission to the wanted coverage area was across sea water the predicted interference level may have been underestimated.

3. Compatibility between the maritime mobile service and the aeronautical radionavigation service in the bands 415 - 435 kHz and 505 - 526.5 kHz and at the band limit around 435 kHz

3.1 Protection of stations of the maritime mobile service against interference from stations of the aeronautical radionavigation service

3.1.1 The parameters given in sections 1.2, 1.3 and 1.5 to 1.8 were applied.

3.1.2 The protection ratios were as follows:

Frequency separation between wanted and interfering signal in kHz	Protection ratio in dB			
	interfering radiobeacon with 400 Hz modulation		interfering radiobeacon with 1 020 Hz modulation	
	wanted signal A1A	wanted signal F1B	wanted signal A1A	wanted signal F1B
0	8	8	8	8
0.5	2	2	-13	-38
1.0	-19	-44	2	2
1.5	-32	-68	-19	-44
2.0	-48		-32	-68
2.5	-66		-48	
3.0			-66	

Note - These protection ratios were established on the basis of an A2A radiobeacon emission.

3.2 Protection of stations of the aeronautical radionavigation service against interference from stations of the maritime mobile service

The parameters given in sections 2.2 to 2.8 were applied. It was assumed that a maritime mobile signal (A1A or F1B) has the same interference potential as an aeronautical radiobeacon signal.

3.3 Protection of stations of the maritime mobile service immediately above 435 kHz against interference from stations of the aeronautical radionavigation service immediately below 435 kHz and vice-versa

The criteria given in 3.1 and 3.2 were applied.

4. Technical criteria applied for the reassignment of replacement frequencies for stations of the maritime mobile service in the bands 1 625 - 1 635 kHz, 1 800 - 1 810 kHz and 2 160 - 2 170 kHz according to Resolution No. 38 of the World Administrative Radio Conference, Geneva, 1979

The criteria given in section 1 and relevant to the bands above 1 606.5 kHz were applied.

5. Technical criteria applied for the protection of frequency assignments of stations of other services to which the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz are also allocated

In applying the planning program as part of the computer program package for the establishment of the Plan, a frequency for stations of the maritime mobile service was selected on the basis of provisional sharing criteria between the services concerned. In applying in the second stage the incompatibility analysis program as part of the computer program package, the final and definite compatibility analysis vis-à-vis stations of the other services to which these bands are also allocated was carried out on the basis of the Technical Standards of the IFRB. This analysis identified those cases where there was a probability of harmful interference in either direction.

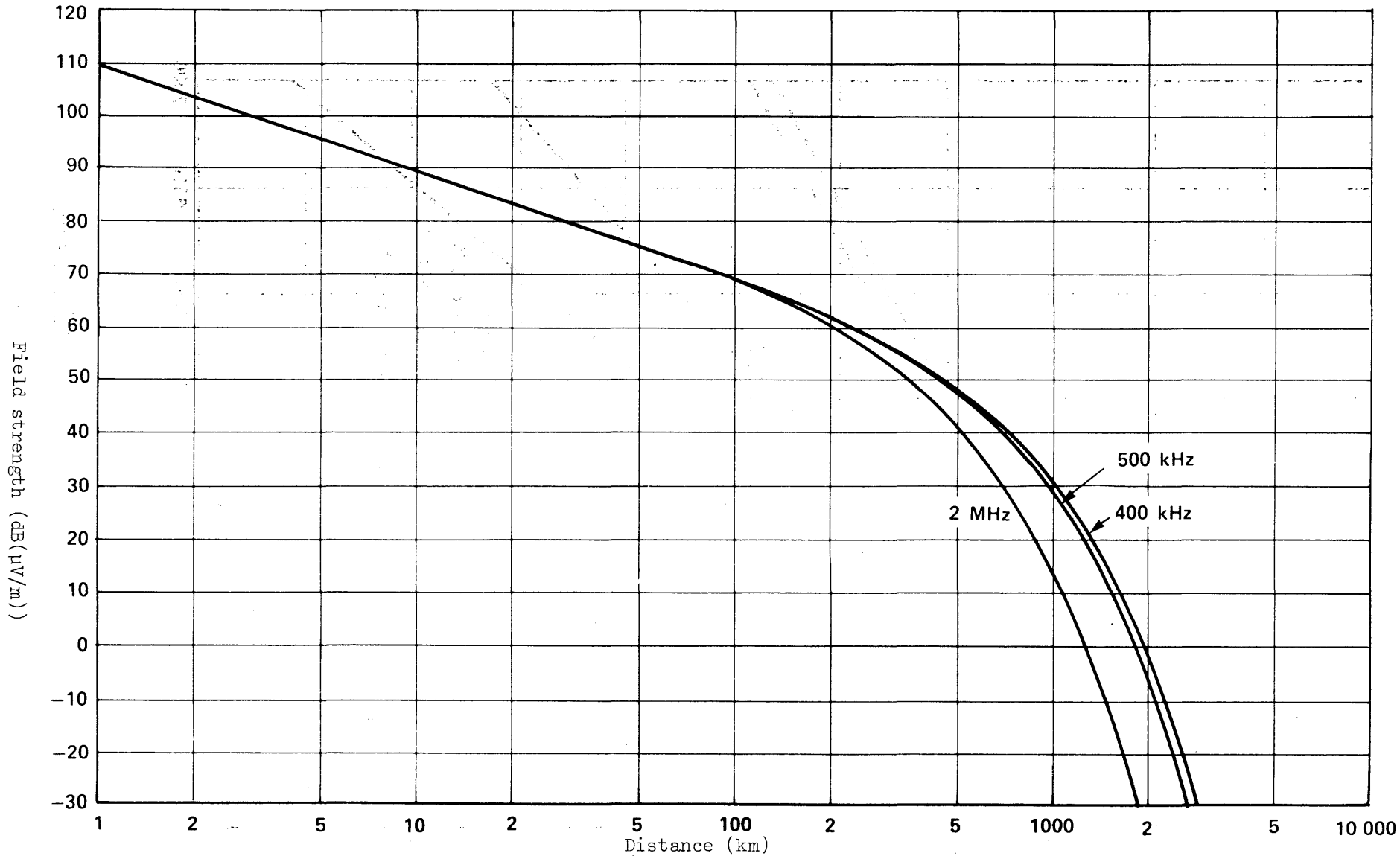

FIGURE 1

Ground-wave propagation - maritime mobile service

(see Annex A, section 1.2.1)

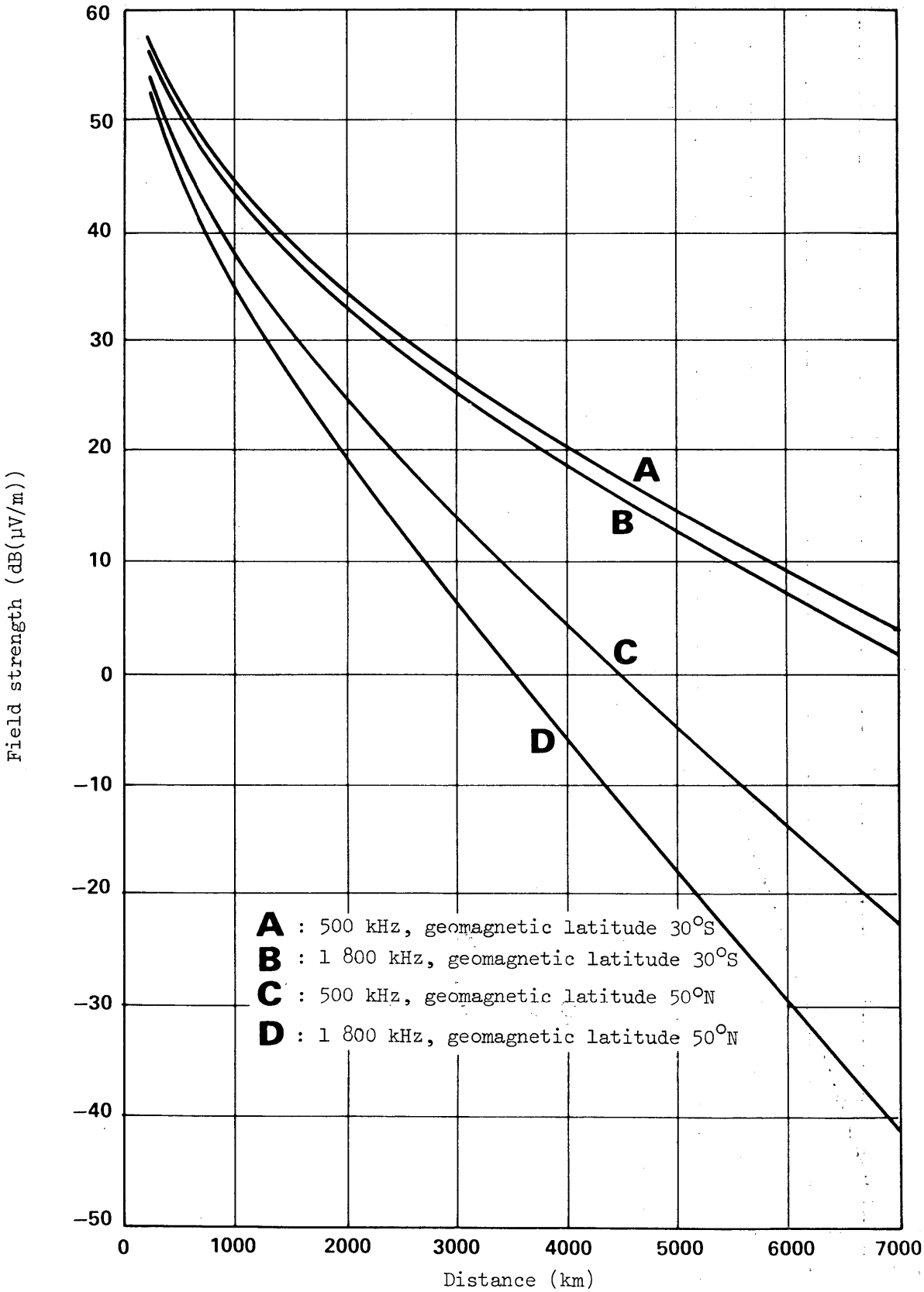

FIGURE 2

Sky-wave propagation - maritime mobile service

(see Annex A, section 1.2.2)

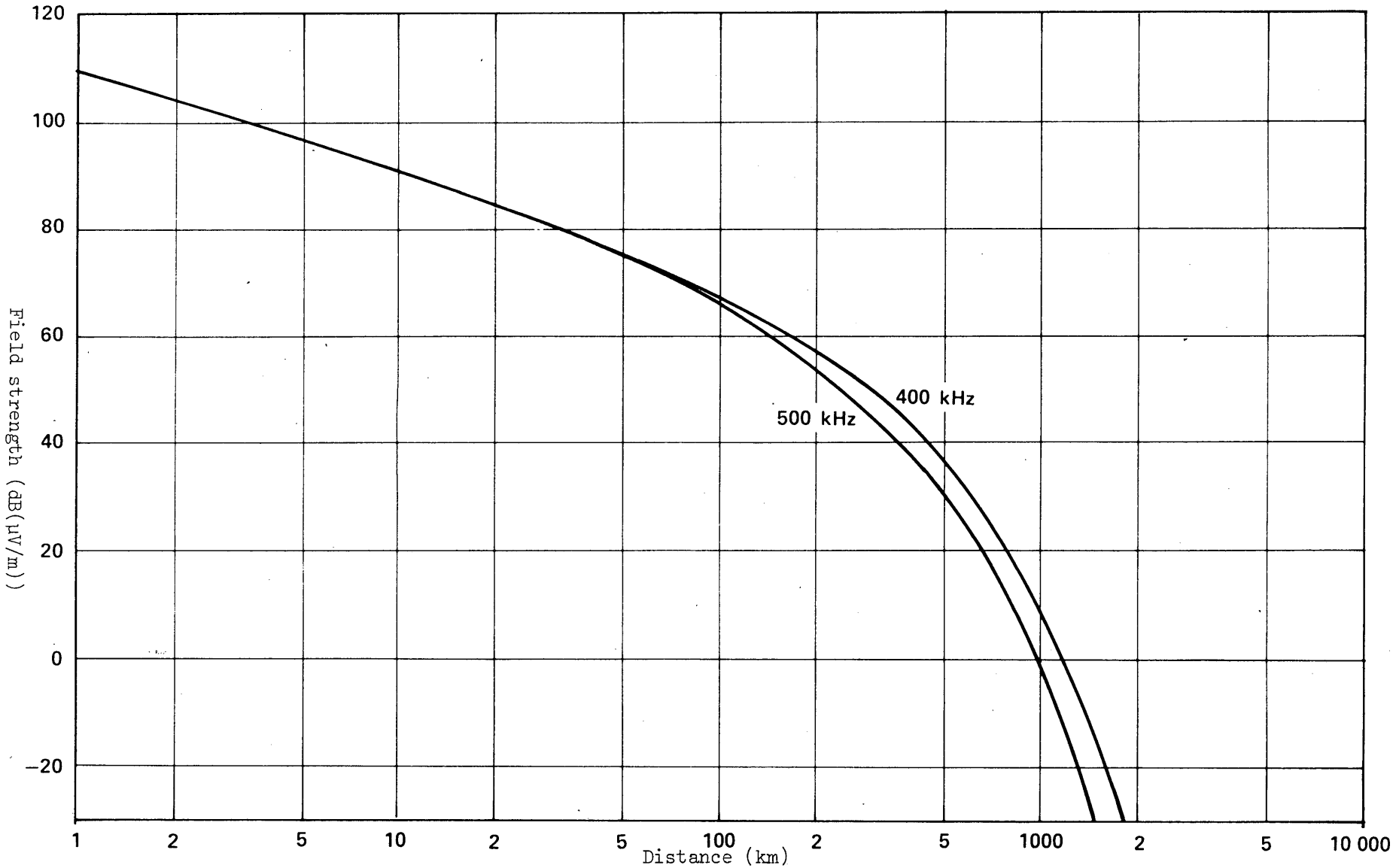

FIGURE 3

Ground-wave propagation - aeronautical radionavigation service

(see Annex A, section 2.2)

ANNEX B

Criteria to be used to identify administrations with which an agreement is required in accordance with Article 4 of the Agreement

The following criteria shall be used to identify administrations with which an agreement is required in accordance with Article 4 of the Agreement.

For the purpose of this annex the following definitions are associated to assignments in conformity with the Agreement:

- the service area of a coast station is the area limited on the one hand by the coast and on the other hand by the coverage range over sea which is recorded in the Plan;

- the service area of a station of the aeronautical radionavigation service is the area around this station limited by the coverage range which is recorded in the Plan.

1. Administrations having an assignment in conformity with the Agreement

1.1 The service rendered by a station for which an assignment is in conformity with the Agreement may be affected by a modification to a Plan when the wanted to unwanted signal ratio at any point of the service area resulting from the proposed modification to a Plan is less than the protection ratio indicated in sections 1.4, 2.4 or 3.1.2 of Annex A, as appropriate.

1.2 The wanted to unwanted signal ratio shall be calculated in the same channel and in any of the adjacent channels using the following criteria.

a) Stations of the maritime mobile service interfering with stations of the maritime mobile service:

Annex A, sections [1.2] [1.2.1] and 1.3 to 1.7.

b) Stations of the maritime mobile service interfering with stations of the aeronautical radionavigation service:

Annex A, sections 1.2.1, 1.7 and 2.3 to 2.7.

The Board in communicating the list of administrations with which coordination is necessary, shall also indicate in the Special Section, for information only, the wanted to unwanted signal ratio resulting from the use of propagation over land (i.e. the data given in section 2.2 of Annex A).

c) Stations of the aeronautical radionavigation service interfering with stations of the aeronautical radionavigation service:

Annex A, sections 2.2 to 2.7.

d) Stations of the aeronautical radionavigation service interfering with stations of the maritime mobile service:

Annex A, sections [1.2] [1.2.1], 1.3, 1.5, 1.6, 2.7 and 3.1.2.

2. Administrations having an assignment recorded in the Master International Frequency Register for an unplanned primary or permitted service

[2.1 Bands 415 - 435 kHz and 505 - 526.5 kHz

2.1.1 The service rendered by a station for which an assignment is recorded in the Master International Frequency Register may be affected by a modification to the Plan when the wanted to unwanted signal ratio at any point of the service area resulting from the proposed modification to the Plan is less than the protection ratio indicated in sections 2.4 or 3.1.2 of Annex A, as appropriate.

2.1.2 The wanted to unwanted signal ratio shall be calculated in the same channel and in any of the adjacent channels using the following criteria.

a) Stations of the maritime mobile service interfering with stations of the aeronautical radionavigation service:

Annex A, sections 1.2.1, 1.7 and 2.3 to 2.7.

The Board in communicating the list of administrations with which coordination is necessary, shall also indicate in the Special Section, for information only, the wanted to unwanted signal ratio resulting from the use of propagation over land (i.e. the data given in section 2.2 of Annex A).

b) Stations of the aeronautical radionavigation service interfering with stations of the maritime mobile service:

Annex A, sections [1.2] [1.2.1], 1.3, 1.5, 1.6, 2.7 and 3.1.2.]

2.2 Bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz

The service rendered by a station for which an assignment is recorded in the Master International Frequency Register may be affected by a modification to the Plan when the application of the relevant Technical Standards of the IFRB using ground-wave propagation would result in an unfavourable finding.

ANNEX C

Criteria to be used by the IFRB in the examination under Radio Regulation 1241 of frequency assignments to stations of primary and permitted services in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz (Article 6 of the Agreement)

When examining frequency assignments to stations of primary and permitted services in the bands 1 606.5 - 1 625 kHz, 1 635 - 1 800 kHz and 2 045 - 2 160 kHz under Radio Regulation 1241 (see Article 6 of the Agreement), the IFRB shall use its relevant Technical Standards on the basis of ground-wave propagation.

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
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GENEVA, FEBRUARY/MARCH 1985

Document 99-E
7 March 1985
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COMMITTEE 5

REPORT OF THE CHAIRMAN OF AD HOC GROUP 5-3 TO COMMITTEE 5

After long discussion on the availability of the DSC channels, the need of duplex operation and the necessary separation between the frequencies used for duplex operation, and on the basis of the provisions of RR 4681, and CCIR Recommendations 493 and 541 as well as the information available in CCIR Report 908 (as revised by the Interim Meeting) ad hoc Group 5-3 reached the following conclusions.

1. The following duplex frequency pairs are proposed for designation for DSC purposes in the 500 kHz band:

Coast station transmit fr. (kHz)	Ship station transmit fr. (kHz)	
455.5	458.5	international use
456.0	459.0	national use
456.5	459.5	national use
457.0	460.0	national use

2. As for the 2 MHz band, the Group reached the conclusion that the 8-duplex frequency pairs mentioned in Document DT/16 are to be used for national use. These are the following:

Channel No.	Coast st. fr. (kHz)	Ship st. fr. (kHz)
229	1 621.0	2 156.0
230	1 621.5	2 156.5
231	1 622.0	2 157.0
232	1 622.5	2 157.5
233	1 623.0	2 158.0
234	1 623.5	2 158.5
235	1 624.0	2 159.0
236	1 624.5	2 159.5

3. The Group examined the possibility of use, for international DSC purpose in the 2 MHz band, of the frequency 2 170.5 kHz and noted the difficulty of selecting another frequency in duplex pair with 2 170.5 kHz. The Group, having identified a world-wide need for this duplex use, agreed to recommend that:

- the WARC for the mobile services planned for 1987 should be requested:

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a) to provide one channel (paired frequencies) for international calls in the digital selective calling system in the 2 MHz band, and

b) to make the necessary provisions in the Radio Regulations that the channel mentioned under a) above and the channels provided by this Conference for digital selective calling in the 500 kHz and in the 2 MHz bands (see Annexes 1 and 2) can be used on a world-wide basis;

- the CCIR should be invited:

a) to study the technical problems that may result from the channel separation of 3 kHz in the 500 kHz band, and

b) to change the appropriate CCIR Recommendations accordingly if this is necessary.

4. The ad hoc Group proposes the distribution plan of coast stations arranged by countries and areas into three groups in the 455.5 - 460 kHz band and into eight groups in the 1 621 - 1 625 kHz band to ensure a better distribution of calls.

The groups of countries are contained in Annexes 1 and 2.

5. The ad hoc Group draws the attention of Committee 5 to the fact that it would be necessary to establish a procedure which can be used by administrations in order to enter into a group or to make modifications in the distribution plan.

6. The Group could not define the place of the above-mentioned distribution plans in the Agreement and the associated plans. Committee 5 is requested to decide thereupon.

J. BARRANCO ALVAREZ
Chairman of ad hoc Group 5-3

Annexes: 2

ANNEX 1

Group 1: coast station transmitting frequency: 456 kHz

ALB	ALBANIA	MAU	MAURITIUS
BEL	BELGIUM	MDG	MADAGASCAR
BEN	BENIN	MRN	I MARION
BHR	BAHRAIN	MTN	MAURITANIA
CME	CAMEROON	NIG	NIGERIA
COM	COMORES	NOR	NORWAY
CPV	CAPE VERT	OMA	OMAN
EGY	EGYPT	QAT	QATAR
F	FRANCE	REU	REUNION
FNL	FINLAND	S	SWEDEN (Baltic)
GMB	GAMBIA	SDN	SUDAN
GRC	GREECE	SEN	SENEGAL
IRQ	IRAQ	SYR	SYRIA
ISL	ICELAND	UAE	UNITED ARAB EMIRATES
JOR	JORDAN	YEM	YEMEN A.R.
KWT	KUWAIT	YMS	YEMEN (P.D.R. of)
LBN	LEBANON	YUG	YUGOSLAVIA

Group 2: Coast station transmitting frequency: 456.5 kHz

AFS	SOUTH AFRICA	HOL	NETHERLANDS
AZR	AZORES	I	ITALY
BLR	BYELORUSSIA	ISR	ISRAEL
BUL	BULGARIA	LBY	LIBYA
CNR	CANARIES	MDR	MADEIRA
COG	CONGO	MLT	MALTA
CYP	CYPRUS	MNG	MONGOLIA
D	FEDERAL REPUBLIC OF GERMANY (North Sea)	PORT	PORTUGAL
		ROU	ROMANIA
DJI	DJIBOUTI	SEY	SEYCHELLES
DNK	DENMARK	SOM	SOMALIA
E	SPAIN	SRL	SIERRA LEONE
ETH	ETHIOPIA	STP	SAO TOME AND PRINCIPE
GAB	GABON	UKR	UKRAINE
GNB	GUINEA-BISSAU	URS	USSR (Baltic, Black Sea)
GNE	EQUATORIAL GUINEA	ZAI	ZAIRE
GUI	GUINEA		

Group 3: coast station transmitting frequency: 457 kHz

AGL	ANGOLA	KEN	KENYA
ALG	ALGERIA	LBR	LIBERIA
ARS	SAUDI ARABIA	MOZ	MOZAMBIQUE
ASC	ASCENSION	MRC	MOROCCO
CRO	ARCHIPELAGO CROZET	NMB	NAMIBIA
CTI	IVORY COAST	POL	POLAND
D	FEDERAL REPUBLIC OF GERMANY (Baltic)	SHN	ST. HELENA
DDR	GERMAN DEMOCRATIC REPUBLIC	TCD	CHAD
G	UNITED KINGDOM	TGO	TOGO
GHA	GHANA	TUN	TUNISIA
GIB	GIBRALTAR	TUR	TURKEY
IRL	IRELAND	TZA	TANZANIA
		URS	USSR (Bering Sea)

ANNEX 2

Group 1: coast station transmitting frequency: 1 621 kHz

ASC	ASCENSION	I	ITALY (West)
BUL	BULGARIA	ISL	ICELAND
CPV	CAPE VERDE	JOR	JORDAN
CTI	IVORY COAST	MRC	MOROCCO
CVA	VATICAN	NOR	NORWAY (N.65N.)
G	UNITED KINGDOM (Irish Sea)	TZA	TANZANIA
		YEM	YEMEN ARAB REPUBLIC
GAB	GABON		

Group 2: coast station transmitting frequency: 1 621.5 kHz

CME	CAMEROON	LBR	LIBERIA
CNR	CANARIES	MAU	MAURITIUS
COM	COMORES	NOR	NORWAY (S.65N.)
ETH	ETHIOPIA	REU	REUNION
G	UNITED KINGDOM (Channel)	ROU	ROMANIA
I	ITALY (East)	SEY	SEYCHELLES
ISR	ISRAEL		

Group 3: coast station transmitting frequency: 1 622 kHz

ALG	ALGERIA	LBY	LIBYA
BLR	BYELORUSSIA	NOR	NORWAY (S.65N.)
F	FRANCE (Channel)	SYR	SYRIA
GHA	GHANA	UAE	UNITED ARAB EMIRATES
GRC	GREECE (East)	UKR	UKRAINE
KEN	KENYA	URS	USSR (Bering, Baltic, Black Sea)

Group 4: coast station transmitting frequency: 1 622.5 kHz

ARS	SAUDI ARABIA	IRL	IRELAND
D	FEDERAL REPUBLIC OF GERMANY	MCO	MONACO
		MOZ	MOZAMBIQUE
F	FRANCE (Medit.)	MTN	MAURITANIA
FNL	FINLAND	SRL	SIERRA LEONE
GNE	EQUATORIAL GUINEA	TUR	TURKEY

Group 5: coast station transmitting frequency: 1 623 kHz

DJI	DJIBOUTI	MLT	MALTA
E	SPAIN (Medit.)	NMB	NAMIBIA
G	UNITED KINGDOM (North Sea)	OMA	OMAN
GIB	GIBRALTAR	S	SWEDEN
GMB	GAMBIA	STP	SAO TOME AND PRINCIPE
MDR	MADEIRA		

Group 6: coast station transmitting frequency: 1 623.5 kHz

AGL	ANGOLA	HOL	NETHERLANDS
ALB	ALBANIA	NIG	NIGERIA
E	SPAIN (Atlantic)	POL	POLAND
EGY	EGYPT	YMS	YEMEN (People's Democratic Republic of)
GUI	GUINEA		

Group 7: coast station transmitting frequency: 1 624 kHz

AZR	AZORES	MDG	MADAGASCAR
BEL	BELGIUM	POR	PORTUGAL
BEN	BENIN	SDN	SUDAN
DDR	GERMAN DEMOCRATIC REPUBLIC	SEN	SENEGAL
GRC	GREECE (West)	SHN	ST. HELENA
IRQ	IRAQ	TRC	TRISTAN DE CUNHA
		ZAI	ZAIRE

Group 8: coast station transmitting frequency: 1 624.5 kHz

AFS	SOUTH AFRICA	KWT	KUWAIT
BHR	BAHRAIN	LBN	LEBANON
COG	CONGO	QAT	QATAR
CYP	CYPRUS	SOM	SOMALIA
DNK	DENMARK	TGO	TOGO
F	FRANCE (Atlantic)	TUN	TUNISIA
GNB	GUINEA-BISSAU	YUG	YUGOSLAVIA

REGION 1

INTERNATIONAL TELECOMMUNICATION UNION
RARC FOR THE MARITIME MOBILE SERVICE AND THE AERONAUTICAL RADIONAVIGATION SERVICE IN CERTAIN PARTS OF THE MF BAND IN REGION 1
GENEVA, FEBRUARY/MARCH 1985

Document 100-E
8 March 1985

LIST OF DOCUMENTS

(51 - 100)

PL = Plenary
C = Committee
WG = Working Group

No.	Origin	Title	Destination
51	C.5	Summary record of the second meeting of Committee 5	C.5
52	ad hoc C.5-1	Report by Chairman of ad hoc Group 5-1 to Committee 5	C.5
53	C.6	Workings Groups set up by Committee 6	C.6
54	C.4	Summary record of the second meeting of Committee 4	C.4
55	C.5	Summary record of the third meeting of Committee 5	C.5
56	C.6	Summary record of the second meeting of Committee 6	C.6
57	C.4	Summary record of the third meeting of Committee 4	C.4
58(Rev.1)	C.3	Note by the chairman of Committee 3	C.4, 5 and 6
59 +Corr.1	C.4	Summary record of the fourth meeting of Committee 4	C.4
60	C.4	First note from C.4 to C.5	C.5
61	C.4	Second note from C.4 to C.5	C.5
62	C.4	Third note from C.4 to C.5	C.5
63	C.5	Note by chairman of Committee 5	C.5
64	S.G.	Transmission of a Resolution adopted by Permanenet Technical Committee of CITEL	-
65	C.4	First note from C.4 to C.6	C.6

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No.	Origin	Title	Destination
66	C.3	Summary record of the first meeting of Committee 3	C.3
67 +Corr.1	C.4	Summary record of the fifth meeting of Committee 4	C.4
68 +Corr.1	C.4	Summary record of the sixth meeting of Committee 4	C.4
69 +Corr.1	C.4	Summary record of the seventh and last meeting of Committee 4	C.4
70	C.5	First report by the chairman of Committee 5	PL
71	S.G.	Position of the conference accounts at 28 February 1985	C.3
72	F	Propositions	C.6
73	C.5	Summary record of the fourth meeting of Committee 5	C.5
74	S.G.	Statement of expenses incurred for the preparatory work by the IFRB for RARC-MM-R1 and RARC-EMA	C.3
75	WG 5B	First report from Working Group 5B	C.5
76	WG 6B	Report of the chairman of Working Group 6B	C.6
77	WG 6A	First report of Working Group 6A	C.6
78	C.6	Summary record of the third meeting of Committee 6	C.6
79	WG 2A	Second report of the Working Group 2A	C.2
80	C.5	Note from chairman of C.5 to Committee 4 and 6	C.4 and 6
81	PL	Minutes of the 2nd Plenary Meeting	PL
82	ad hoc C.6	Report of the ad hoc Group of Committee 6	C.6

No.	Origin	Title	Destination
83	C.5	Note by the Chairman of Committee 5	C.6
84	C.5	Note from Chairman of Committee 5	C.6
85	C.5	Note by Chairman of Committee 5	C.5
86	C.7	Summary Record of the first meetings of the Editorial Committee (MM & EMA)	C.7
87	C.5	Note by the Chairman of Committee 5 - Information included in the columns of the Plans	C.5
88	C.4	Note from Committee 4	C.5, C.6
89	C.4	4th note from C.4 to C.5	C.5
90	WG 6A	2nd report fo Working Group 6A	C.6
91	WG 6A	Note from the Chairmain of Working Group 6A	C.6
92	ad hoc C.5-4	Report of the ad hoc Group 4 of Committee 5	C.5
93	C.4	Summary Record of the eighth meeting of Committee 4	C.4
94	C.5	Summary Record of the fifth meeting of Committee 5	C.5
95	C.6	Note by the Chairman of Committee 6	C.6
96	ad hoc WG 6A	Report of the ad hoc Group of Working Group 6A	C.6
97	C.3	Summary Record of the second meeting	C.3
98	C.6	Note by the Chairman of Committee 6	C.6
99	ad hoc C.5-3	Report of the Chairman of ad hoc Group 5-3	C.5
100	SG	List of documents	-