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**Documents of the World Administrative Radio Conference for the mobile services (2nd session)
(WARC MOB-87 (2)) (Geneva, 1987)**

To reduce download time, the ITU Library and Archives Service has divided the conference documents into sections.

- This PDF includes Document DL No. 1-76
- The complete set of conference documents includes Document No. 1-487, DL No. 1-76, DT No. 1-82

AGENDA OF THE
MEETING OF HEADS OF DELEGATIONS
Monday, 14 September 1987, at 1030 hrs
(Room II)

	<u>Document No.</u>
1. Opening by the Secretary-General and designation of the Chairman of the meeting	-
2. Approval of the agenda of the meeting	-
3. Proposals for the election of the Chairman of the Conference	-
4. Proposals for the election of the Vice-Chairmen of the Conference	-
5. Conference Structure	DT/2
6. Proposals for the election of the Chairmen and Vice-Chairmen of the Committees	-
7. Draft agenda of the first Plenary Meeting	DT/3
8. Allocation of documents to Committees	DT/4
9. Other business	-

R.E. BUTLER
Secretary-General



STEERING COMMITTEE

DRAFT

GENERAL SCHEDULE OF THE WORK OF THE CONFERENCE

Week 1 (14 - 18 September)

Organisation and commencement of work

Week 2 (21 - 25 September)

Continuation of work in Working Groups and Committees

Week 3 (28 September - 2 October)

Wednesday 30 - End of work of the Technical Working Group of the PL

Week 4 (5 - 9 October)

Monday 5 - End of work of Working Groups of Committee 4

Tuesday 6 - End of work of Working Groups of Committee 5

Wednesday 7 - End of work of Committee 4
- End of work of Working Groups of Committee 6

Thursday 8 - End of work of Committee 5

Friday 9 - End of work of Committee 6

Week 5 (12 - 16 October)

Tuesday 13 - Report of Committee 2

Wednesday 14 - First reading by Plenary of last texts
of the Final Acts

Thursday 15 - Second reading by Plenary of last texts
of the Final Acts

Friday 16 - Report of Committee 3
- Signing Ceremony and Closing

Note 1 Plenary meetings will be scheduled as necessary during each week of the Conference.

Note 2 This schedule may be changed in the course of the work of the Conference.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/3-E
15 September 1987
Original: English

WORKING GROUP 5-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 5-B

In order to assist Working Group 5-B, Chapter IX of the Radio Regulations is hereby reproduced in annex.

T. HAHKIO
Chairman of Working Group 5-B

Annex: 1

ANNEX

RR37-1

CHAPTER IX

Mob-83 Distress and Safety Communications ¹

ARTICLE 37

General Provisions

2930 § 1. The procedure specified in this Chapter is obligatory in the maritime mobile service and for communications between aircraft stations and stations of the maritime mobile service. The provisions of this Chapter are also applicable to the aeronautical mobile service except in the case of special arrangements between the governments concerned.

2931 § 2. The procedure specified in this Chapter is obligatory in the maritime mobile-satellite service and for communications between stations on board aircraft and stations of the maritime mobile-satellite service, where this service or stations of this service are specifically mentioned. Nos. 3086, 3090, 3095, 3096, 3097, 3098, 3200, 3203 and 3223 are also applicable.

2932 § 3. (1) No provision of these Regulations prevents the use by
Mob-83 a mobile station or mobile earth station in distress of any means at its disposal to attract attention, make known its position, and obtain help.

2933 (2) No provision of these Regulations prevents the use by
Mob-83 stations on board aircraft or ships engaged in search and rescue operations, in exceptional circumstances, of any means at their disposal to assist a mobile station or mobile earth station in distress.

C.IX ¹ For the purposes of this Chapter, distress and safety com-
Mob-83 munications include distress, urgency and safety calls and messages.

(Rev. 1985)

2934 (3) No provision of these Regulations prevents the use by
Mob-83 a land station or coast earth station, in exceptional circumstances, of any means at its disposal to assist a mobile station or mobile earth station in distress (see also No. 959).

2934A § 3A. When special circumstances make it indispensable to
Mob-83 do so, an administration may, as an exception to the methods of working provided for by these Regulations, authorize ship earth stations located at Rescue Coordination Centres¹ to communicate with other stations of the same category using bands allocated to the maritime mobile-satellite service, for distress and safety purposes only.

2935 § 4. In cases of distress, urgency or safety, transmissions:

2936 a) by telegraphy, when using Morse, shall not in
Mob-83 general exceed a speed of sixteen words a minute;

2937 b) by radiotelephony, shall be made slowly and distinctly,
 each word being clearly pronounced to facilitate transcription.

2937A § 4A. Distress, urgency and safety transmissions may also be
Mob-83 made, taking into account Nos. 2944 to 2949, using digital selective calling and satellite techniques in accordance with relevant CCIR Recommendations, and/or direct-printing telegraphy.

2938 § 5. The abbreviations and signals of Appendix 14 and the
 Phonetic Alphabet and Figure Code in Appendix 24 should be used where applicable and, where language difficulties exist, the use of the International Code of Signals also is recommended.

2934A.1 ¹ The term "Rescue Coordination Centre" refers to a facility
Mob-83 designated by a competent national authority to perform rescue coordination functions consistent with the International Convention on Maritime Search and Rescue (1979).

2939 § 6. (1) The International Convention for the Safety of Life at
 Sea prescribes which ships and which of their survival craft shall be fitted with radio equipment and which ships shall carry portable radio equipment for use in survival craft. It also prescribes the requirements which shall be complied with by such installations.

2940 (2) The Annexes to the Convention on International Civil
Mob-83 Aviation state which aircraft should be fitted with radio equipment and which aircraft should carry portable survival radio equipment. They state also the requirements which should be complied with by such installations.

2941 § 7. The applicable provisions of the present Regulations
 shall, however, be observed in the use of all such installations.

2942 § 8. Mobile stations¹ of the maritime mobile service may
Mob-83 communicate, for safety purposes, with stations of the aeronautical mobile service. Such communications shall be made on the frequencies authorized, and under the conditions specified, in Section I of Article 38 (see also No. 2932).

2942A § 8A. Mobile stations of the aeronautical mobile service may
Mob-83 communicate, for safety purposes, with stations of the maritime mobile service.

2943 § 9. Any aircraft required by national or international regulations
Mob-83 to communicate for distress, urgency or safety purposes with stations of the maritime mobile service shall be capable of transmitting preferably class A2A or H2A and receiving preferably class A2A and H2A emissions on the carrier frequency

2942.1 ¹ Mobile stations communicating with the stations of the
Mob-83 aeronautical mobile (R) service in bands allocated to the aeronautical mobile (R) service shall conform to the provisions of the Regulations which relate to that service and, as appropriate, any special arrangements between the governments concerned by which the aeronautical mobile (R) service is regulated.

500 kHz or, on the carrier frequency 2 182 kHz, transmitting class J3E or H3E and receiving class A3E, J3E and H3E emissions¹, or on the carrier frequency 4 125 kHz, transmitting class J3E and receiving class J3E emissions, or on the frequency 156.8 MHz transmitting and receiving class G3E emissions.

2944 § 10. The frequency provisions made in Section I of
Mob-83 Article 38 for the future global maritime distress and safety system (FGMDSS) shall be used in connection with the testing and introduction of this system (see Resolution 321 (**Mob-83**) and Recommendation 201 (**Rev.Mob-83**)), and be subject to the provisions of Nos. 2945 to 2949.

2945 § 11. Until a future world administrative radio conference
Mob-83 has made full provision for the normal operational use of the future global maritime distress and safety system (FGMDSS):

2946 a) all provisions of the Radio Regulations pertaining
Mob-83 to the present distress, urgency and safety communications shall be maintained in force;

2947 b) particular care shall be taken to ensure that
Mob-83 harmful interference is not caused to distress, urgency and safety communications on the established international distress frequencies 500 kHz, 2 182 kHz and 156.8 MHz and on the supplementary distress frequencies 4 125 kHz and 6 215.5 kHz;

2948 c) operators of stations participating in the future
Mob-83 global maritime distress and safety system (FGMDSS) for distress, urgency or safety purposes, should recognize that it may be necessary to

2943.1 ¹ As an exception, the requirement to receive class A3E
Mob-83 emissions on the carrier frequency 2 182 kHz may be made optional when permitted by national regulations.

revert to the other distress, urgency and safety arrangements provided for in these Regulations (see Recommendation 201 (**Rev.Mob-83**));

2949
Mob-83

d) the frequencies identified in Section I of Article 38 for exclusive use for distress and safety calls by digital selective calling may additionally be used for test transmissions only to the extent necessary to facilitate the testing and progressive introduction of that system.

2950
to
2966

NOT allocated.

ARTICLE 38

Frequencies for Distress and Safety

Section I. Availability of Frequencies

2967
Mob-83

A. 490 kHz

2968
Mob-83

§ 0. The frequency 490 kHz is used exclusively for distress and safety calls in the shore-to-ship direction by digital selective calling techniques (see No. 2944). Additional conditions concerning the use of this frequency are given in Resolution 206 (Mob-83).

2969
Mob-83

B. 500 kHz

2970
Mob-83

§ 1. (1) The frequency 500 kHz is the international distress frequency for Morse telegraphy (see also No. 472); it shall be used for this purpose by ship, aircraft and survival craft stations employing frequencies in the bands between 415 kHz and 535 kHz when requesting assistance from the maritime services. It shall be used for the distress call and distress traffic, for the urgency signal and urgency messages, for the safety signal and, outside regions of heavy traffic, for short safety messages. When practicable, safety messages shall be transmitted on the working frequency after a preliminary announcement on 500 kHz (see also No. 4236). For distress and safety purposes, the classes of emission to be used on 500 kHz shall be A2A, A2B, H2A or H2B (see also No. 3042).

2971

(2) However, ship and aircraft stations which cannot transmit on 500 kHz should use any other available frequency on which attention might be attracted.

(Rev. 1985)

2971A *C. 518 kHz*
Mob-83

2971B § 1A. In the maritime mobile service, the frequency 518 kHz
Mob-83 is used exclusively for the transmission by coast stations of meteorological and navigational warnings and urgent information to ships, by means of narrow-band direct-printing telegraphy (see No. 2944 and Resolution 318 (Mob-83)).

2971C *D. 2 174.5 kHz*
Mob-83

2971D § 1B. The frequency 2 174.5 kHz is used exclusively for dis-
Mob-83 tress and safety traffic by narrow-band direct-printing telegraphy (see No. 2944).

2972 *E. 2 182 kHz*
Mob-83

2973 § 2. (1) The carrier frequency 2 182 kHz¹ is an international
Mob-83 distress frequency for radiotelephony (see also Nos. 500 and 501); it shall be used for this purpose by ship, aircraft and survival craft stations and by emergency position-indicating radiobeacons using frequencies in the authorized bands between 1 605 kHz and 4 000 kHz when requesting assistance from the maritime services. It is used for the distress call and distress traffic, for signals of emergency position-indicating radiobeacons, for the urgency signal and urgency messages and for the safety signal. Safety messages shall be transmitted, where practicable, on a working frequency after a preliminary announcement on 2 182 kHz (see No. 2944). The class of emission to be used for radiotelephony on the frequency 2 182 kHz shall be H3E. Class A3E emission may continue to be used by apparatus provided solely for distress,

2973.1 ¹ Where administrations provide at their coast stations a
Mob-83 watch on 2 182 kHz for receiving class J3E emissions as well as class A3E and H3E emissions, ship stations may communicate with them using class J3E emissions.

urgency and safety purposes (see No. 4127). The class of emission to be used by emergency position-indicating radiobeacons shall be as specified in Appendix 37 (see also No. 3265). The class of emission J3E may be used for the exchange of distress traffic on 2 182 kHz following the acknowledged reception of a distress call using digital selective calling techniques on 2 187.5 kHz taking into account that other shipping in the vicinity may not be able to receive this traffic.

2974 (2) If a distress message on the carrier frequency 2 182 kHz
Mob-83 has not been acknowledged, the radiotelephone alarm signal, whenever possible followed by the distress call and message, may be transmitted again on a carrier frequency of 4 125 kHz or 6 215.5 kHz, as appropriate (see Nos. 2982, 2986 and 3054).

2975 (3) However, ship and aircraft stations which cannot
transmit on the carrier frequency 2 182 kHz or, in accordance with No. 2974, on the carrier frequencies 4 125 kHz or 6 215.5 kHz, should use any other available frequency on which attention might be attracted.

2976 *SUP*
Mob-83

2977 (5) Any coast station using the carrier frequency 2 182 kHz
for distress purposes shall be able to transmit the radiotelephone alarm signal described in No. 3270 (see also Nos. 3277, 3278 and 3279).

2978 (6) Any coast station authorized to send navigational
warnings should be able to transmit the navigational warning signal described in Nos. 3284, 3285 and 3286.

2978A *F. 2 187.5 kHz*
Mob-83

2978B § 2A. The frequency 2 187.5 kHz is used exclusively for dis-
Mob-83 tress and safety calls by digital selective calling techniques (see No. 2944). It may also be used for emergency position-indicating radiobeacons using digital selective calling.

2979 *G. 3 023 kHz*
Mob-83

2980 § 3. The aeronautical carrier (reference) frequency
Mob-83 3 023 kHz may be used for intercommunication between mobile stations when they are engaged in coordinated search and rescue operations, and for communication between these stations and participating land stations, in accordance with the provisions of Appendix 27 Aer2 (see Nos. 501 and 505).

2981 *H. 4 125 kHz*
Mob-83

2982 § 4. (1) The carrier frequency 4 125 kHz is used to supplement
Mob-83 the carrier frequency 2 182 kHz for distress and safety purposes and for call and reply (see also No. 520). This frequency is also used for distress and safety traffic by radiotelephony (see No. 2944).

2982A (2) The carrier frequency 4 125 kHz may be used by air-
Mob-83 craft stations to communicate with stations of the maritime mobile service for distress and safety purposes (see No. 2943).

2982B *I. 4 177.5 kHz*
Mob-83

2982C § 4A. The frequency 4 177.5 kHz is used exclusively for dis-
Mob-83 tress and safety traffic using narrow-band direct-printing telegraphy (see No. 2944).

2982D *J. 4 188 kHz*
Mob-83

2982E § 4B. The frequency 4 188 kHz is used exclusively for distress
Mob-83 and safety calls using digital selective calling techniques (see No. 2944).

2983 *K. 5 680 kHz*
Mob-83

2984 § 5. The aeronautical carrier (reference) frequency
Mob-83 5 680 kHz may be used for intercommunication between mobile stations when they are engaged in coordinated search and rescue operations, and for communication between these stations and participating land stations, in accordance with the provisions of Appendix 27 Aer2 (see also Nos. 501 and 505).

2985 *L. 6 215.5 kHz*
Mob-83

2986 § 6. The carrier frequency 6 215.5 kHz is used to supple-
Mob-83 ment the carrier frequency 2 182 kHz for distress and safety purposes and for call and reply (see also No. 520). This frequency is also used for distress and safety traffic by radiotelephony (see No. 2944).

2986A *M. 6 268 kHz*
Mob-83

2986B § 6A. The frequency 6 268 kHz is used exclusively for distress
Mob-83 and safety traffic using narrow-band direct-printing telegraphy (see No. 2944).

2986C *N. 6 282 kHz*
Mob-83

2986D § 6B. The frequency 6 282 kHz is used exclusively for distress
Mob-83 and safety calls by digital selective calling techniques (see No. 2944).

2986E *O. 8 257 kHz*
Mob-83

2986F § 6C. The carrier frequency 8 257 kHz is used for distress and
Mob-83 safety traffic by radiotelephony (see No. 2944).

2986G *P. 8 357.5 kHz*

Mob-83

2986H § 6D. The frequency ~~8 357~~ ^{8 357.5} kHz is used exclusively for distress and safety traffic using narrow-band direct-printing telegraphy (see No. 2944).

2987 *Q. 8 364 kHz*

Mob-83

2988 § 7. The frequency 8 364 kHz is designated for use by survival craft stations if they are equipped to transmit on frequencies in the bands between 4 000 kHz and 27 500 kHz and if they desire to establish communications relating to search and rescue operations with stations of the maritime and aeronautical mobile services (see also No. 501).

2988A *R. 8 375 kHz*

Mob-83

2988B § 7A. The frequency 8 375 kHz is used exclusively for distress and safety calls using digital selective calling techniques (see No. 2944).

2988C *S. 12 392 kHz*

Mob-83

2988D § 7B. The carrier frequency 12 392 kHz is used for distress and safety traffic by radiotelephony (see No. 2944).

2988E *T. 12 520 kHz*

Mob-83

2988F § 7C. The frequency 12 520 kHz is used exclusively for distress and safety traffic using narrow-band direct-printing telegraphy (see No. 2944).

2988G *U. 12 563 kHz*

Mob-83

2988H § 7D. The frequency 12 563 kHz is used exclusively for distress and safety calls using digital selective calling techniques (see No. 2944).

(Rev. 1985)

2988I *V. 16 522 kHz*

Mob-83

2988J § 7E. The carrier frequency 16 522 kHz is used for distress and safety traffic by radiotelephony (see No. 2944).

2988K *W. 16 695 kHz*

Mob-83

2988L § 7F. The frequency 16 695 kHz is used exclusively for distress and safety traffic using narrow-band direct-printing telegraphy (see No. 2944).

2988M *X. 16 750 kHz*

Mob-83

2988N § 7G. The frequency 16 750 kHz is used exclusively for distress and safety calls using digital selective calling techniques (see No. 2944).

2989 *Y. 121.5 MHz and 123.1 MHz*

Mob-83

2990 SUP

Mob-83

2990A § 8. (1A) The aeronautical emergency frequency 121.5 MHz¹ is used for the purposes of distress and urgency for radiotelephony by stations of the aeronautical mobile service using frequencies in the band between 117.975 MHz and 136 MHz (137 MHz after 1 January 1990). This frequency may also be used for these purposes in survival craft stations and emergency position-indicating radiobeacons.

2990A.1 ¹ Normally aircraft stations transmit distress and urgency messages on the working frequency in use at the time of the distress or urgency incident.

(Rev. 1985)

2990B Mob-83 (1B) The aeronautical auxiliary frequency 123.1 MHz, which is auxiliary to the aeronautical emergency frequency 121.5 MHz, is for use by stations of the aeronautical mobile service and by other mobile and land stations engaged in coordinated search and rescue operations (see also No. 593).

2991 Mob-83 (2) Mobile stations of the maritime mobile service may communicate with stations of the aeronautical mobile service on the aeronautical emergency frequency 121.5 MHz for the purposes of distress and urgency only, and on the aeronautical auxiliary frequency 123.1 MHz for coordinated search and rescue operations, using class A3E emissions for both frequencies (see also Nos. 501 and 593). They shall then comply with any special arrangements between the governments concerned by which the aeronautical mobile service is regulated.

2992 Mob-83 *Z. 156.3 MHz*

2993 Mob-83 § 9. The frequency 156.3 MHz may be used for communication between ship stations and aircraft stations, using G3E emission, engaged in coordinated search and rescue operations. It may also be used by aircraft stations to communicate with ship stations for other safety purposes (see also note g) of Appendix 18).

2993A Mob-83 *AA. 156.525 MHz*

2993B Mob-83 § 9A. The frequency 156.525 MHz is used exclusively in the maritime mobile service for distress and safety calls by digital selective calling techniques (see Nos. 613A and 2944 and Resolution 317 (Mob-83)).

2993C Mob-83 *AB. 156.650 MHz*

2993D Mob-83 § 9B. The frequency 156.650 MHz is used for ship-to-ship communications related to the safety of navigation in accordance with note n) of Appendix 18 (see No. 2944).

2993E Mob-83 *AC. 156.8 MHz*

2994 Mob-83 § 10. (1) The frequency 156.8 MHz is the international distress, safety and calling frequency for radiotelephony for stations of the maritime mobile service when they use frequencies in the authorized bands between 156 MHz and 174 MHz (see also Nos. 501 and 613). It is used for the distress signal, the distress call and distress traffic, as well as for the urgency signal, urgency traffic and the safety signal (see also No. 2995A). Safety messages shall be transmitted where practicable on a working frequency after a preliminary announcement on 156.8 MHz. The class of emission to be used for radiotelephony on the frequency 156.8 MHz shall be G3E (see No. 2944 and Appendix 19).

2995 (2) However, ship stations which cannot transmit on 156.8 MHz should use any other available frequency on which attention might be attracted.

2995A Mob-83 (3) The frequency 156.8 MHz may be used by aircraft stations for safety purposes only.

2995B Mob-83 *AD. 156.825 MHz*

2995C Mob-83 § 10A. The frequency 156.825 MHz is used exclusively in the maritime mobile service for distress and safety traffic by direct-printing telegraphy (see Nos. 2944, 3033 and 4393 and note k) of Appendix 18).

2996 *AE. 243 MHz*
Mob-83

(See Nos. 501 and 642)

2997 *AF. 406 - 406.1 MHz Band*
Mob-83

2997A § 10B. The frequency band 406 - 406.1 MHz is used exclusively
Mob-83 by satellite emergency position-indicating radiobeacons in the Earth-to-space direction (see No. 649).

2998 *AG. 1 544 - 1 545 MHz Band*
Mob-83

2998A § 10C. Use of the band 1 544 - 1 545 MHz (space-to-Earth) is
Mob-83 limited to distress and safety operations (see No. 728) including:

2998B a) feeder links of satellites needed to relay the emis-
Mob-83 sions of satellite emergency position-indicating radiobeacons to earth stations;

2998C b) narrow-band (space-to-Earth) links from space sta-
Mob-83 tions to mobile stations.

2998D *AH. 1 645.5 - 1 646.5 MHz Band*
Mob-83

2998E § 10D. Use of the band 1 645.5 - 1 646.5 MHz (Earth-to-space)
Mob-83 is limited to distress and safety operations (see No. 728).

2999 *AI. Aircraft in Distress*
Mob-83

3000 § 11. Any aircraft in distress shall transmit the distress call on the frequency on which watch is kept by the land or mobile stations capable of helping it. When the call is intended for stations in the maritime mobile service, the provisions of Nos. 2970 and 2971 or 2973 and 2975 or 2994 and 2995 shall be complied with.

(Rev. 1985)

3001 *AJ. Survival Craft Stations*
Mob-83

3002 § 12. Equipment provided for use in survival craft stations shall, if capable of operating on any frequency:

3003 a) in the authorized bands between 415 kHz and
Mob-83 526.5 kHz, be able to transmit with a carrier frequency of 500 kHz using either class A2A and A2B * or H2A and H2B * emissions. If a receiver is provided for any of these bands, it shall be able to receive class A2A and H2A emissions on a carrier frequency of 500 kHz;

3004 b) in the bands between 1 605 kHz and 2 850 kHz, be able to transmit with a carrier frequency of 2 182 kHz using class A3E or H3E emissions. If a receiver is provided for any of these bands, it shall be able to receive class A3E and H3E emissions on a carrier frequency of 2 182 kHz;

3005 c) in the bands between 4 000 kHz and 27 500 kHz, be able to transmit with a carrier frequency of 8 364 kHz using class A2A or H2A emissions. If a receiver is provided for any of these bands, it shall be able to receive class A1A, A2A and H2A emissions throughout the band 8 341.75 - 8 728.5 kHz;

3006 d) in the bands between 117.975 MHz and 136 MHz
Mob-83 (137 MHz after 1 January 1990), be able to transmit on 121.5 MHz, using amplitude modulated emissions. If a receiver is provided for any of these bands, it shall be able to receive class A3E emissions on 121.5 MHz;

* This is to cater for the automatic reception of the radiotelegraph alarm signal.

(Rev. 1985)

- 3007** e) *in the bands between 156 MHz and 174 MHz*, be able to transmit on 156.8 MHz using class G3E emissions. If a receiver is provided for any of these bands it shall be able to receive class G3E emissions on 156.8 MHz;
- 3008** f) *in the bands between 235 MHz and 328.6 MHz*, be able to transmit on the frequency 243 MHz.
- 3008A** § 12A. Equipment with digital selective calling facilities provided for use in survival craft shall, if capable of operating:
- Mob-83**
- 3008B** a) *in the bands between 1 605 kHz and 2 850 kHz*, be able to transmit on 2 187.5 kHz;
- Mob-83**
- 3008C** b) *in the bands between 4 000 kHz and 27 500 kHz*, be able to transmit on 8 375 kHz;
- Mob-83**
- 3008D** c) *in the bands between 156 MHz and 174 MHz*, be able to transmit on 156.525 MHz.
- Mob-83**

Mob-83 Section II. Protection of Distress and Safety Frequencies

3009 A. General

- 3010** § 13. Except as provided for in Nos. 2944, 2949 and 3011, any emission capable of causing harmful interference to distress, alarm, urgency or safety communications on the international distress frequencies 500 kHz, 2 182 kHz or 156.8 MHz, or on the distress and safety calling frequencies 490 kHz, 2 187.5 kHz, 4 125 kHz, 4 188 kHz, 6 215.5 kHz, 6 282 kHz, 8 375 kHz, 12 563 kHz, 16 750 kHz or 156.525 MHz is prohibited. Any emission causing harmful interference to distress and safety communications on any of the other frequencies identified in Section I of this Article is prohibited.
- Mob-83**

- 3011** § 14. (1) Test transmissions shall be kept to a minimum on the frequencies identified in Section I of this Article and should, wherever practicable, be carried out on artificial antennas or with reduced power.
- Mob-83**

3012 to 3015 SUP
Mob-83

- 3016** (2) It is not permitted to transmit complete alarm signals for testing purposes on any frequency except for essential tests coordinated with competent authorities. As an exception such tests are permitted for radiotelephone equipment which can operate only on the international distress frequency 2 182 kHz, in which case a suitable artificial antenna shall be employed.
- Mob-83**

- 3016A** § 14A.(1) Before transmitting on any of the frequencies identified in Section I for distress and safety, a station shall listen on the frequency concerned to make sure that no distress transmission is being sent (see No. 4915).
- Mob-83**

- 3016B** (2) The provisions of No. 3016A do not apply to stations in distress.
- Mob-83**

3017 B. 500 kHz

- 3018** § 15. (1) Apart from the transmissions authorized on 490 kHz and 500 kHz, and taking account of No. 4226, all transmissions on the frequencies included between 490 kHz and 510 kHz are forbidden (see No. 471 and Resolution 206 (Mob-83)).
- Mob-83**

- 3019** (2) In order to facilitate the reception of distress calls, other transmissions on the frequency 500 kHz shall be reduced to a minimum, and in any case shall not exceed one minute.

3020 and 3021 SUP
Mob-83

3022 *C. 2 182 kHz*

3023 § 16. (1) Except for transmissions authorized on the carrier
Mob-83 frequency 2 182 kHz and on the frequencies 2 174.5 kHz
 and 2 187.5 kHz, all transmissions on the frequencies between
 2 173.5 kHz and 2 190.5 kHz are forbidden.

3024 and 3025 SUP
Mob-83

3026 (4) To facilitate the reception of distress calls, all trans-
 missions on 2 182 kHz shall be kept to a minimum.

3027 (5) At sea it is not permitted to radiate test transmissions
Mob-83 of the radiotelephone alarm signal on the carrier frequency
 2 182 kHz. The function of the generator of the radiotelephone
 alarm signal shall be checked by aural monitoring without oper-
 ating a transmitter. The transmitter shall be checked indepen-
 dently. During tests of the radio installation carried out by an
 administration or on behalf of an administration the radiotele-
 phone alarm signal device should be checked with a suitable
 artificial antenna on frequencies other than 2 182 kHz. If the
 installation is capable of operating only on the frequency
 2 182 kHz a suitable artificial antenna should be employed (see
 No. 3016).

3028 (6) Before and after the tests performed using an artificial
Mob-83 antenna in accordance with No. 3027, a suitable announcement
 should be made on the test frequency that the signals are or were
 for testing purposes only. The identification of the station should
 be included in the announcement.

3029 to 3031 SUP
Mob-83

3031A *DA. 121.5 MHz, 123.1 MHz and 243 MHz*
Mob-83

3031B § 17A. On the frequencies 121.5 MHz, 123.1 MHz and
Mob-83 243 MHz transmissions other than those authorized are forbidden
 (see Nos. 501, 593, 642, 2990A and 2990B).

(Rev. 1985)

3032 *E. 156.8 MHz*

3033 § 18. (1) All emissions in the band 156.7625 - 156.8375 MHz
Mob-83 capable of causing harmful interference to the authorized transmis-
 sions of stations of the maritime mobile service on 156.8 MHz are
 forbidden. The frequency 156.825 MHz may, however, be used for
 the purposes described in No. 2995C subject to not causing
 harmful interference to authorized transmissions on 156.8 MHz
 (see also note k) of Appendix 18).

3034 and 3035 SUP
Mob-83

3036 (4) To facilitate the reception of distress calls all trans-
 missions on 156.8 MHz shall be kept to a minimum and shall not
 exceed one minute.

Section III. Watch on Distress Frequencies**3037** *A. 500 kHz*

3038 § 19. (1) In order to increase the safety of life at sea and over the
Mob-83 sea, all stations of the maritime mobile service normally keeping
 watch on frequencies in the authorized bands between 415 kHz
 and 526.5 kHz shall, during their hours of service, take the
 necessary measures to ensure watch on the international distress
 frequency 500 kHz for three minutes twice an hour beginning at
 x h 15 and x h 45, Coordinated Universal Time (UTC) by an
 operator using headphones or loudspeaker.

3039 (2) During the periods mentioned above, except for the
Mob-83 emissions provided for in this Chapter on the frequency 500 kHz:

3040 a) transmissions shall cease in the bands between
Mob-83 485 kHz and 515 kHz (see also Resolu-
 tion 206 (Mob-83));

3033.1 SUP
Mob-83

(Rev. 1986)

3041 *b)* outside these bands, transmissions of stations of the mobile service may continue; stations of the maritime mobile service may listen to these transmissions on the express condition that they first ensure watch on the distress frequency as required by No. 3038.

3042 § 20. (1) Stations of the maritime mobile service open to public
Mob-83 correspondence and using frequencies in the authorized bands between 415 kHz and 526.5 kHz shall, during their hours of service, remain on watch on 500 kHz. This watch is obligatory only for class A2A and H2A emissions.

3043 (2) These stations, while observing the requirements of No. 3038, are authorized to relinquish this watch only when they are engaged in communications on other frequencies.

3044 (3) When they are engaged in such communications:

3045 *a)* ship stations may maintain this watch on 500 kHz by means of an operator using headphones or a loudspeaker or by some appropriate means such as an automatic alarm receiver;

3046 *b)* coast stations may maintain this watch on 500 kHz by means of an operator using headphones or a loudspeaker; in the latter case an indication may be inserted in the List of Coast Stations.

3046A (4) Ship stations, while observing the requirements of
Mob-83 No. 3038, are also authorized to relinquish this watch¹ when it is impractical to listen by split headphones or by loudspeaker, and by order of the master in order to repair or carry out maintenance required to prevent imminent malfunction of:

3046A.1 ¹ For additional information see the relevant provisions of the
Mob-83 International Convention for the Safety of Life at Sea.

3046B *a)* equipment for radiocommunication used for
Mob-83 safety;

3046C *b)* radionavigational equipment;
Mob-83

3046D *c)* other electronic navigational equipment.
Mob-83

3046E (5) Ship stations fitted with an automatic alarm receiver
Mob-83 should ensure the equipment is in operation whenever watch is relinquished under the terms of No. 3046A.

3047 *B. 2 182 kHz*

3048 § 21. (1) Coast stations which are open to public correspondence
Mob-83 and which form an essential part of the coverage of the area for distress purposes shall, during their hours of service, maintain a watch on 2 182 kHz.

3049 (2) These stations shall maintain this watch by means of an operator using some aural method, such as headphones, split headphones or loudspeaker.

3050 (3) In addition, ship stations should keep the maximum watch practicable on the carrier frequency 2 182 kHz for receiving by any appropriate means the radiotelephone alarm signal described in No. 3270, and the navigational warning signal described in Nos. 3284, 3285 and 3286, as well as distress, urgency and safety signals.

3051 § 22. Ship stations open to public correspondence should, as far as possible during their hours of service, keep watch on 2 182 kHz.

3052 § 23. In order to increase the safety of life at sea and over the sea, all stations of the maritime mobile service normally keeping watch on frequencies in the authorized bands between 1 605 kHz and 2 850 kHz shall, during their hours of service, and

as far as possible, take steps to keep watch on the international distress carrier frequency 2 182 kHz for three minutes twice each hour beginning at x h 00 and x h 30 Coordinated Universal Time (UTC).

3052A § 23A. During the periods referred to in No. **3052** all trans-
Mob-83 missions, except those provided for in this Chapter, shall cease in the band 2 173.5 - 2 190.5 kHz.

3053 C. 4 125 kHz and 6 215.5 kHz

3054 § 24. (1) In the zone of Region 1 south of latitude 15° N, in
Mob-83 Region 2 (except Greenland) and in the zone of Region 3 south of latitude 25° N, all coast stations which are open to public correspondence and which form an essential part of the coverage of the area for distress purposes may, during their hours of service, maintain a watch on the carrier frequencies 4 125 kHz and/or 6 215.5 kHz, as appropriate (see Nos. **2982** and **2986**). Such watch should be indicated in the List of Coast Stations.

3055 (2) These stations should maintain this watch by means of an operator using some aural method, such as headphones, split headphones or loudspeaker.

3056 D. 156.8 MHz

3057 § 25. (1) A coast station providing an international maritime mobile radiotelephone service in the band 156 - 174 MHz and which forms an essential part of the coverage of the area for distress purposes should, during its working hours in that band, maintain an efficient aural watch on 156.8 MHz (see Recommendation **306**).

3058 (2) Ship stations should, where practicable, maintain watch on 156.8 MHz when within the service area of a coast station providing international maritime mobile radiotelephone service in the band 156 - 174 MHz. Ship stations fitted only with VHF radiotelephone equipment operating in the authorized bands between 156 MHz and 174 MHz, should maintain watch on 156.8 MHz when at sea.

3059 (3) Ship stations, when in communication with a port station, may, on an exceptional basis and subject to the agreement of the administration concerned, continue to maintain watch, on the appropriate port operations frequency only, provided that watch on 156.8 MHz is being maintained by the port station.

3060 (4) Ship stations, when in communication with a coast station in the ship movement service and subject to the agreement of the administrations concerned, may continue to maintain watch on the appropriate ship movement service frequency only, provided the watch on 156.8 MHz is being maintained by that coast station.

3061
to
3085 NOT allocated.

ARTICLE 39

Distress Communications

Section I. General

- 3086 § 1. The distress call shall have absolute priority over all other transmissions. All stations which hear it shall immediately cease any transmission capable of interfering with the distress traffic and shall continue to listen on the frequency used for the emission of the distress call. This call shall not be addressed to a particular station and acknowledgement of receipt shall not be given before the distress message which follows it is sent.
- 3087 § 2. The distress call and message shall be sent only on the authority of the master or person responsible for the ship, aircraft or other vehicle carrying the mobile station or ship earth station.

Section II. Distress Signal

- 3088 § 3. (1) The radiotelegraph distress signal consists of the group $\cdots - - - \cdots$, symbolized herein by \overline{SOS} , transmitted as a single signal in which the dashes are emphasized so as to be distinguished clearly from the dots.
- 3089 (2) The radiotelephone distress signal consists of the word MAYDAY pronounced as the French expression "m'aider".
- 3090 (3) These distress signals indicate that a ship, aircraft or other vehicle is threatened by grave and imminent danger and requests immediate assistance.

Section III. Distress Call

- 3091 § 4. (1) The distress call sent by radiotelegraphy consists of:
- the distress signal \overline{SOS} , sent three times;
 - the word DE;
 - the call sign of the mobile station in distress, sent three times.

- 3092 (2) The distress call sent by radiotelephony consists of:
- the distress signal MAYDAY, spoken three times;
 - the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
 - the call sign or other identification of the mobile station in distress, spoken three times.

Section IV. Distress Messages

- 3093 § 5. (1) The radiotelegraph distress message consists of:
- the distress signal \overline{SOS} ;
 - the name, or other identification, of the mobile station in distress;
 - particulars of its position;
 - the nature of the distress and the kind of assistance desired;
 - any other information which might facilitate the rescue.

- 3094 (2) The radiotelephone distress message consists of:
- the distress signal MAYDAY;
 - the name, or other identification, of the mobile station in distress;
 - particulars of its position;
 - the nature of the distress and the kind of assistance desired;
 - any other information which might facilitate the rescue.

- 3095 § 6. (1) As a general rule, a ship shall signal its position in latitude and longitude (Greenwich), using figures for the degrees and minutes, together with one of the words NORTH or SOUTH and one of the words EAST or WEST. In radiotelegraphy, the signal · — · — · — shall be used to separate the degrees from the minutes; however, this shall not necessarily apply to the maritime mobile-satellite service. When practicable, the true bearing and distance in nautical miles from a known geographical position may be given.

- 3096 (2) As a general rule, and if time permits, an aircraft shall transmit in its distress message the following information:

- estimated position and time of the estimate;
- heading in degrees (state whether magnetic or true);
- indicated air speed;
- altitude;
- type of aircraft;
- nature of distress and type of assistance desired;
- any other information which might facilitate the rescue (including the intention of the person in command, such as forced alighting on the sea or crash landing).

- 3097 (3) As a general rule, an aircraft in flight shall signal its position either in radiotelephony or radiotelegraphy:

- by latitude and longitude (Greenwich) using figures for the degrees and minutes, together with one of the words NORTH or SOUTH and one of the words EAST or WEST; *or*
- by the name of the nearest place, and its approximate distance in relation thereto, together with one of the words NORTH, SOUTH, EAST or WEST, as the case may be, or when practicable, by words indicating intermediate directions.

- 3098 (4) However, in radiotelegraphy, the words NORTH or SOUTH and EAST or WEST, indicated in Nos. 3095 and 3097, may be replaced by the letters N or S and E or W.

Section V. Procedures

A. Radiotelegraphy

- 3099 § 7. (1) The radiotelegraph distress procedure shall consist of:
- 3100 — the alarm signal, followed in order by:
 - 3101 — the distress call and an interval of two minutes;
 - 3102 — the distress call;
 - 3103

- 3104 — the distress message;
- 3105 — two dashes of ten to fifteen seconds' duration each;
- 3106 — the call sign of the station in distress.
- 3107 (2) However, when time is vital, the second step of this procedure (No. 3102), or even the first and second steps (Nos. 3101 and 3102), may be omitted or shortened. These two steps of the distress procedure may also be omitted in circumstances where transmission of the alarm signal is considered unnecessary.
- 3108 § 8. (1) The distress message, preceded by the distress call, shall be repeated at intervals, especially during the periods of silence prescribed in No. 3038 for radiotelegraphy, until an answer is received.
- 3109 (2) The intervals shall, however, be sufficiently long to allow time for stations preparing to reply to start their sending apparatus.
- 3110 (3) The alarm signal may also be repeated, if necessary.
- 3111 § 9. The transmissions under Nos. 3105 and 3106, which are to permit direction-finding stations to determine the position of the station in distress, may be repeated at frequent intervals if necessary.
- 3112 § 10. When the mobile station in distress receives no answer to a distress message sent on the distress frequency, the message may be repeated on any other available frequency on which attention might be attracted.
- 3113 § 11. Immediately before a crash landing or a forced landing (on land or sea) of an aircraft, as well as before total abandonment of a ship or an aircraft, the radio apparatus should be set for continuous emission, if considered necessary and circumstances permit.
- 3114 *B. Radiotelephony*
- 3115 § 12. The radiotelephone distress procedure shall consist of:
- 3116 — the alarm signal (whenever possible) followed by:

- 3117 — the distress call;
- 3118 — the distress message.
- 3119 § 13. After the transmission by radiotelephony of its distress message, the mobile station may be requested to transmit suitable signals followed by its call sign or other identification, to permit direction-finding stations to determine its position. This request may be repeated at frequent intervals if necessary.
- 3120 § 14. (1) The distress message, preceded by the distress call, shall be repeated at intervals, especially during the periods of silence prescribed in No. 3052 for radiotelephony, until an answer is received.
- 3121 (2) The intervals shall, however, be sufficiently long to allow time for stations preparing to reply to start their sending apparatus.
- 3122 (3) This repetition shall be preceded by the alarm signal whenever possible.
- 3123 § 15. When the mobile station in distress receives no answer to a distress message sent on the distress frequency, the message may be repeated on any other available frequency on which attention might be attracted.
- 3124 § 16. Immediately before a crash landing or a forced landing (on land or sea) of an aircraft, as well as before total abandonment of a ship or an aircraft, the radio apparatus should be set for continuous emission, if considered necessary and circumstances permit.

Section VI. Acknowledgement of Receipt of a Distress Message

- 3125 § 17. (1) Stations of the mobile service which receive a distress message from a mobile station which is, beyond any possible doubt, in their vicinity, shall immediately acknowledge receipt.
- 3126 (2) However, in areas where reliable communications with one or more coast stations are practicable, ship stations should defer this acknowledgement for a short interval so that a coast station may acknowledge receipt.

- 3127** (3) Stations of the mobile service which receive a distress message from a mobile station which, beyond any possible doubt, is not in their vicinity, shall allow a short interval of time to elapse before acknowledging receipt of the message, in order to permit stations nearer to the mobile station in distress to acknowledge receipt without interference.
- 3128** (4) However, stations in the maritime mobile service which receive a distress message from a mobile station which, beyond any possible doubt, is a long distance away, need not acknowledge receipt of messages except as specified in No. 3160.
- 3129** § 18. The acknowledgement of receipt of a distress message shall be given in the following form:
- 3130** a) Radiotelegraphy:
- the distress signal SOS;
 - the call sign of the station sending the distress message, sent three times;
 - the word DE;
 - the call sign of the station acknowledging receipt, sent three times;
 - the group RRR;
 - the distress signal SOS.
- 3131** b) Radiotelephony:
- the distress signal MAYDAY;
 - the call sign or other identification of the station sending the distress message, spoken three times;
 - the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
 - the call sign or other identification of the station acknowledging receipt, spoken three times;
 - the word RECEIVED (or RRR spoken as ROMEO ROMEO ROMEO in case of language difficulties);
 - the distress signal MAYDAY.

- 3132** § 19. (1) Every mobile station which acknowledges receipt of a distress message shall, on the order of the master or person responsible for the ship, aircraft or other vehicle, transmit, as soon as possible, the following information in the order shown:
- its name;
 - its position in the form prescribed in Nos. 3095, 3097 and 3098;
 - the speed at which it is proceeding towards, and the approximate time it will take to reach, the mobile station in distress;
 - additionally, if the position of the ship in distress appears doubtful, ship stations should also transmit, when available, the true bearing of the ship in distress preceded by the abbreviation QTE (for classification of bearings, see Appendix 41).
- 3133** (2) Before transmitting the message specified in No. 3132, the station shall ensure that it will not interfere with the emissions of other stations better situated to render immediate assistance to the station in distress.
- Section VII. Distress Traffic**
- 3134** § 20. Distress traffic consists of all messages relating to the immediate assistance required by the mobile station in distress.
- 3135** § 21. In distress traffic, the distress signal shall be sent before the call and at the beginning of the preamble of any radiotelegram.
- 3136** § 22. The control of distress traffic is the responsibility of the mobile station in distress or of the station which, by the application of the provisions of Section VIII of the present Article, has sent the distress message. These stations may, however, delegate the control of the distress traffic to another station.
- 3137** § 23. The station in distress or the station in control of distress traffic may impose silence either on all stations of the mobile service in the area or on any station which interferes with the distress traffic. It shall address these instructions "to all stations" (CQ) or to one station only, according to circumstances. In either case, it shall use:
- 3138** a) in radiotelegraphy, the abbreviation QRT, followed by the distress signal SOS;

- 3139** *b)* in radiotelephony, the signal SEELONCE MAYDAY, pronounced as the French expression "silence, m'aider".
- 3140** § 24. If it is believed to be essential, any station of the mobile service near the ship, aircraft or other vehicle in distress may also impose silence. It shall use for this purpose:
- 3141** *a)* in radiotelegraphy, the abbreviation QRT, followed by the word DISTRESS and its own call sign;
- 3142** *b)* in radiotelephony, the word SEELONCE, pronounced as the French word "silence", followed by the word DISTRESS and its own call sign.
- 3143** § 25. (1) In radiotelegraphy, the use of the signal QRT SOS shall be reserved for the mobile station in distress and for the station controlling distress traffic.
- 3144** (2) In radiotelephony, the use of the signal SEELONCE MAYDAY shall be reserved for the mobile station in distress and for the station controlling distress traffic.
- 3145** § 26. (1) Any station of the mobile service which has knowledge of distress traffic and which cannot itself assist the station in distress shall nevertheless follow such traffic until it is evident that assistance is being provided.
- 3146** (2) Until they receive the message indicating that normal working may be resumed (see No. 3150), all stations which are aware of the distress traffic, and which are not taking part in it, are forbidden to transmit on the frequencies on which the distress traffic is taking place.
- 3147** § 27. A station of the mobile service which, while following distress traffic, is able to continue its normal service, may do so when the distress traffic is well established and on condition that it observes the provisions of No. 3146 and does not interfere with the distress traffic.
- 3148** § 28. In cases of exceptional importance and provided that no interference or delay is caused to the handling of distress traffic, urgency and safety messages may be announced during a lull in the distress traffic, preferably by coast stations, on the distress frequencies.

This announcement shall include an indication of the working frequency on which the urgency or safety message will be transmitted. In this case, the signals provided for in Nos. 3196, 3197, 3221 and 3222 should only be sent once (e.g. XXX DE ABC QSW...).

- 3149** § 29. A land station or an earth station in the maritime mobile-satellite service at a specified fixed point receiving a distress message shall, without delay, take the necessary action to advise the appropriate authorities responsible for providing for the operation of rescue facilities.
- 3150** § 30. (1) When distress traffic has ceased on a frequency which has been used for distress traffic, the station which has controlled this traffic shall transmit on that frequency a message addressed "to all stations" (CQ) indicating that normal working may be resumed.
- 3151** (2) When complete silence is no longer necessary on a frequency which is being used for distress traffic, the station controlling the traffic shall transmit on that frequency a message addressed "to all stations" (CQ) indicating that restricted working may be resumed.
- 3152** (3) *a)* In radiotelegraphy, the message referred to in No. 3150 consists of:
- the distress signal SOS;
 - the call "to all stations" (CQ) sent three times;
 - the word DE;
 - the call sign of the station sending the message;
 - the time of handing in of the message;
 - the name and call sign of the mobile station which was in distress;
 - the service abbreviation QUM.
- 3153** *b)* In radiotelegraphy, the message referred to in No. 3151 consists of:
- the distress signal SOS;
 - the call "to all stations" (CQ) sent three times;
 - the word DE;

- the call sign of the station sending the message;
- the time of handing in of the message;
- the name and call sign of the mobile station which is in distress;
- the service abbreviation QUZ.

3154 (4) *a)* In radiotelephony, the message referred to in No. 3150 consists of:

- the distress signal MAYDAY;
- the call "Hello all stations" or CQ (spoken as CHARLIE QUEBEC) spoken three times;
- the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
- the call sign or other identification of the station sending the message;
- the time of handing in of the message;
- the name and call sign of the mobile station which was in distress;
- the words SEELONCE FEENEE pronounced as the French words "silence fini".

3155 *b)* In radiotelephony, the message referred to in No. 3151 consists of:

- the distress signal MAYDAY;
- the call "Hello all stations" or CQ (spoken as CHARLIE QUEBEC) spoken three times;
- the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
- the call sign or other identification of the station sending the message;
- the time of handing in of the message;
- the name and call sign of the mobile station which is in distress;
- the word PRU-DONCE pronounced as the French word "prudence".

3156 § 31. When a station in distress has delegated control of distress working to another station, the person in charge of the station in distress should, when he considers silence no longer justified, immediately inform the controlling station, which will act in accordance with the provisions of No. 3150.

Section VIII. Transmission of a Distress Message by a Station Not Itself in Distress

3157 § 32. A mobile station or a land station which learns that a mobile station is in distress shall transmit a distress message in any of the following cases:

- 3158** *a)* when the station in distress is not itself in a position to transmit the distress message;
- 3159** *b)* when the master or person responsible for the ship, aircraft or other vehicle not in distress, or the person responsible for the land station, considers that further help is necessary;
- 3160** *c)* when, although not in a position to render assistance, it has heard a distress message which has not been acknowledged.

3161 § 33. (1) The transmission of a distress message under the conditions prescribed in Nos. 3158 to 3160 shall be made on one or more of the international distress frequencies (500 kHz, 2 182 kHz, 156.8 MHz) or on any other frequency which may be used in case of distress (see Nos. 2970, 2971, 2973, 2975, 2994, 2995 and 3000).

3162 (2) This transmission of the distress message shall always be preceded by the call indicated below, which shall itself be preceded whenever possible by the radiotelegraph or radiotelephone alarm signal.

3163 (3) This call consists of:

- 3164** *a)* Radiotelegraphy:
- the signal DDD SOS SOS SOS DDD;
 - the word DE;
 - the call sign of the transmitting station, sent three times.

3165

b) Radiotelephony:

- the signal MAYDAY RELAY pronounced as the French expression "m'aider relais", spoken three times;
- the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
- the call sign or other identification of the transmitting station, spoken three times.

3166

§ 34. When the radiotelegraph alarm signal is used, an interval of two minutes shall be allowed, whenever this is considered necessary, before the transmission of the call mentioned in No. 3164.

3167

§ 35. When a station of the mobile service transmits a distress message under the conditions mentioned in No. 3160, it shall take all necessary steps to notify the authorities who may be able to render assistance.

3168

§ 36. A ship station should not acknowledge receipt of a distress message transmitted by a coast station under the conditions mentioned in Nos. 3157 to 3160 until the master or person responsible has confirmed that the ship station concerned is in a position to render assistance.

3169

to
3195

NOT allocated.

ARTICLE 40

Urgency and Safety Transmissions, and Medical Transports

Section I. Urgency Signal and Messages

3196

§ 1. (1) In radiotelegraphy, the urgency signal consists of three repetitions of the group XXX, sent with the letters of each group and the successive groups clearly separated from each other. It shall be transmitted before the call.

3197

(2) In radiotelephony, the urgency signal consists of three repetitions of the group of words PAN PAN, each word of the group pronounced as the French word "panne". The urgency signal shall be transmitted before the call.

3198

§ 2. (1) The urgency signal shall be sent only on the authority of the master or the person responsible for the ship, aircraft or other vehicle carrying the mobile station or mobile earth station in the maritime mobile-satellite service.

3199

(2) The urgency signal may be transmitted by a land station or an earth station in the maritime mobile-satellite service at specified fixed points only with the approval of the responsible authority.

3200

§ 3. (1) The urgency signal indicates that the calling station has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or the safety of a person.

3201

Mob-83

(2) The urgency signal and message following it shall be sent on one or more of the international distress frequencies 500 kHz, 2 182 kHz, 156.8 MHz, the supplementary distress frequencies 4 125 kHz and 6 215.5 kHz, the aeronautical emergency frequency 121.5 MHz, the frequency 243 MHz, or on any other frequency which may be used in case of distress.

3202

(3) However, in the maritime mobile service, the message shall be transmitted on a working frequency:

a) in the case of a long message or a medical call; or

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 MOB-87/DL/3-E

- b) in areas of heavy traffic in the case of the repetition of a message transmitted in accordance with the provisions laid down in No. 3201.

An indication to this effect shall be given at the end of the call.

- 3203** (4) The urgency signal shall have priority over all other communications, except distress. All stations which hear it shall take care not to interfere with the transmission of the message which follows the urgency signal.
- 3204** (5) In the maritime mobile service, urgency messages may be addressed either to all stations or to a particular station.
- 3205** § 4. Messages preceded by the urgency signal shall, as a general rule, be drawn up in plain language.
- 3206** § 5. (1) Mobile stations which hear the urgency signal shall continue to listen for at least three minutes. At the end of this period, if no urgency message has been heard, a land station should, if possible, be notified of the receipt of the urgency signal. Thereafter, normal working may be resumed.
- 3207** (2) However, land and mobile stations which are in communication on frequencies other than those used for the transmission of the urgency signal and of the call which follows it may continue their normal work without interruption provided the urgency message is not addressed "to all stations" (CQ).
- 3208** § 6. When the urgency signal has been sent before transmitting a message "to all stations" (CQ) which calls for action by the stations receiving the message, the station responsible for its transmission shall cancel it as soon as it knows that action is no longer necessary. This message of cancellation shall likewise be addressed "to all stations" (CQ).

Section II. Medical Transports

- 3209** § 7. The term "medical transports", as defined in the 1949
Mob-83 Geneva Conventions and Additional Protocols, refers to any means of transportation by land, water or air, whether military or civilian, permanent or temporary, assigned exclusively to medical transportation and under the control of a competent authority of

a party to a conflict or of neutral States and of other States not parties to an armed conflict, when these ships, craft and aircraft assist the wounded, the sick and the shipwrecked.

- 3210** § 8. For the purpose of announcing and identifying medical transports which are protected under the above-mentioned Conventions, a complete transmission of the urgency signals described in Nos. 3196 and 3197 shall be followed by the addition of the single group YYY in radiotelegraphy and by the addition of the single word MAY-DEE-CAL, pronounced as in French "médical", in radiotelephony.
- 3211** § 9. The frequencies specified in No. 3201 may be used by medical transports for the purpose of self-identification and to establish communications. As soon as practicable, communications shall be transferred to an appropriate working frequency.
- 3212** § 10. The use of the signals described in No. 3210 indicates that the message which follows concerns a protected medical transport. The message shall convey the following data:
- 3213** a) the call sign or other recognized means of identification of the medical transport;
- 3214** b) position of the medical transport;
- 3215** c) number and type of medical transports;
- 3216** d) intended route;
- 3217** e) estimated time en route and of departure and arrival, as appropriate;
- 3218** f) any other information, such as flight altitude, radio frequencies guarded, languages used and secondary surveillance radar modes and codes.
- 3219** § 11. The provisions of Section I of this Article shall apply as appropriate to the use of the urgency signal by medical transports.
- 3219A** § 11A. The identification and location of medical transports at
Mob-83 sea may be effected by means of appropriate standard maritime radar transponders.

3219B Mob-83 § 11B. The identification and location of aircraft medical transports may be effected by the use of the secondary surveillance radar (SSR) system specified in Annex 10 to the Convention on International Civil Aviation.

3220 § 12. The use of radiocommunications for announcing and identifying medical transports is optional; however, if they are used, the provisions of these Regulations and particularly of this Section and of Articles 37 and 38 shall apply.

Section III. Safety Signal and Messages

3221 § 13. (1) In radiotelegraphy, the safety signal consists of three repetitions of the group TTT, the individual letters of each group and the successive groups being clearly separated from each other. It shall be sent before the call.

3222 (2) In radiotelephony, the safety signal consists of the word SÉCURITÉ pronounced clearly as in French, spoken three times and transmitted before the call.

3223 § 14. (1) The safety signal indicates that the station is about to transmit a message containing an important navigational or an important meteorological warning.

3224 (2) The safety signal and call shall be sent on one or more of the international distress frequencies (500 kHz, 2 182 kHz, 156.8 MHz) or on any other frequency which may be used in case of distress.

3225 (3) The safety message which follows the call should be sent on a working frequency. A suitable announcement to this effect shall be made at the end of the call.

3226 (4) In the maritime mobile service, safety messages shall generally be addressed to all stations. In some cases, however, they may be addressed to a particular station.

3227 § 15. (1) With the exception of messages transmitted at fixed times, the safety signal, when used in the maritime mobile service, shall be transmitted towards the end of the first available period of silence (see No. 3038 for radiotelegraphy and No. 3052 for radiotelephony); the message shall be transmitted immediately after the period of silence.

3228 (2) In the cases prescribed in Nos. 3328, 3331 and 3335, the safety signal and the message which follows it shall be transmitted as soon as possible, and shall be repeated at the end of the first period of silence which follows.

3229 § 16. All stations hearing the safety signal shall listen to the safety message until they are satisfied that the message is of no concern to them. They shall not make any transmission likely to interfere with the message.

3230 to 3254 NOT allocated.

ARTICLE 41

Alarm and Warning Signals

Section I. Emergency Position-Indicating Radiobeacon Signals

3255 § 1. The emergency position-indicating radiobeacon signal consists of:

3256 a) for medium frequencies, i.e. 2 182 kHz ¹:

3257 1) a keyed emission modulated by a tone of
Mob-83 1 300 Hz (± 20 Hz) having a period of emission of 1.0 to 1.2 s and a period of silence (carrier suppressed) of 1.0 to 1.2 s; *or*

3258 2) the radiotelephone alarm signal (see No. 3270), followed by the Morse letter B and/or the call sign of the ship to which the radiobeacon belongs transmitted by keying a carrier modulated by a tone of either 1 300 Hz or 2 200 Hz;

3259 b) for very high frequencies, i.e. 121.5 MHz and
Mob-83 243 MHz, a signal whose characteristics shall be in accordance with those specified in Appendix 37A.

3260 § 2. (1) The essential purpose of the emergency position-indicating radiobeacon signals is to facilitate determining the position of survivors in search and rescue operations.

3261 (2) These signals shall indicate that one or more persons are in distress, may no longer be on board a ship or an aircraft, and that receiving facilities may not be available.

3256.1 ¹ In Japan, there are emergency position-indicating radiobeacons which transmit the distress signal and identification on frequencies between 2 089.5 kHz and 2 092.5 kHz using class A1A emissions.

3262 (3) Any mobile service station receiving one of these signals, while no distress or urgent traffic is being passed, shall consider that the provisions of Nos. 3157 and 3158 are applicable.

3263 and 3264 SUP
Mob-83

3265 § 3. The keying cycles in Nos. 3257 and 3258 may be interrupted for speech transmission if administrations so desire.
Mob-83

3266 § 4. (1) Equipment designed to transmit emergency position-indicating radiobeacon signals on the carrier frequency 2 182 kHz shall meet the requirements specified in Appendix 37.

3267 (2) Equipment designed to transmit emergency position-indicating radiobeacon signals on the frequencies 121.5 MHz and 243 MHz shall meet the requirements specified in Appendix 37A.
Mob-83

Section II. Radiotelegraph and Radiotelephone Alarm Signals

3268 § 5. (1) The radiotelegraph alarm signal consists of a series of twelve dashes sent in one minute, the duration of each dash being four seconds and the duration of the interval between consecutive dashes one second. It may be transmitted by hand but its transmission by means of an automatic instrument is recommended.

3269 (2) Any ship station working in the bands between 415 kHz and 526.5 kHz which is not provided with an automatic apparatus for the transmission of the radiotelegraph alarm signal shall be permanently equipped with a clock, clearly marking the seconds preferably by means of a concentric seconds hand. This clock shall be placed at a point sufficiently visible from the operator's table so that the operator may, by keeping it in view, easily and correctly time the different elements of the alarm signal.
Mob-83

3270 § 6. (1) The radiotelephone alarm signal consists of two substantially sinusoidal audio frequency tones transmitted alternately. One tone shall have a frequency of 2 200 Hz and the other a frequency of 1 300 Hz, the duration of each tone being 250 milliseconds.

3271 (2) The radiotelephone alarm signal, when generated by automatic means, shall be sent continuously for a period of at least thirty seconds but not exceeding one minute; when generated by other means, the signal shall be sent as continuously as practicable over a period of approximately one minute.

3272 (3) The radiotelephone alarm signal transmitted by coast stations shall be that described in Nos. 3270 and 3271, which may be followed by a single tone of 1 300 Hz for 10 seconds.

3273 § 7. The purpose of these special signals is:

3274 a) in radiotelegraphy, the actuation of automatic devices giving the alarm to attract the attention of the operator when there is no listening watch on the distress frequency;

3275 b) in radiotelephony, to attract the attention of the person on watch or to actuate automatic devices giving the alarm, or activating a silenced loud-speaker for the message which is to follow.

3276 § 8. (1) These signals shall only be used to announce:

3277 a) that a distress call or message is about to follow;
or

3278 b) the transmission of an urgent cyclone warning, which should be preceded by the safety signal (see Nos. 3221 and 3222). In this case they may only be used by coast stations duly authorized by their government; *or*

3279 c) the loss of a person or persons overboard. In this case they may only be used when the assistance of other ships is required and cannot be satisfactorily obtained by the use of the urgency signal alone, but the alarm signal shall not be repeated by other stations. The message shall be preceded by the urgency signal (see Nos. 3196 and 3197).

- 25 -
MOB-87/DL/3-E

3280 (2) In the cases referred to in Nos. 3278 and 3279, an interval of two minutes should, if possible, separate the end of the radiotelegraph alarm signal and the beginning of the warning or the message.

3281 § 9. Automatic devices intended for the reception of the radiotelegraph and radiotelephone alarm signals shall meet the requirements specified in Appendix 36.

3282 § 10. Before any such automatic device is approved for use on ships, the administration having jurisdiction over those ships shall be satisfied by practical tests made under operating conditions equivalent to those obtaining in practice (including interference, vibration, etc.) that the apparatus complies with the provisions of these Regulations.

Section III. All Ships Selective Call

3283 § 11. The characteristics of the "all ships call" in the selective calling system, which is reserved for alarm purposes only, are given in Appendix 39.

Section IV. Navigational Warning Signal

3284 § 12. (1) The navigational warning signal consists of one substantially sinusoidal tone of the frequency 2 200 Hz, interrupted so that the durations of tone and space are 250 milliseconds each.

3285 (2) The signal should be transmitted by coast stations continuously for a period of fifteen seconds before vital navigational warnings on radiotelephony in the medium frequency maritime bands.

3286 (3) The purpose of the signal is to attract the attention of the person on watch using a loudspeaker or a filtered loudspeaker, or to actuate an automatic device to activate a silenced loudspeaker for the message which is to follow.

3287
to
3311 NOT allocated.

ARTICLE 42

Special Services Relating to Safety

Section I. Meteorological Messages

- 3312** § 1. (1) Meteorological messages comprise:
- 3313** a) messages addressed to meteorological services officially entrusted with weather forecasts, more specifically for the protection of maritime and air navigation;
- 3314** b) messages from these meteorological services intended specially for:
- 3315** — ship stations;
- 3316** — protection of aircraft;
- 3317** — the public.
- 3318** (2) The information contained in these messages may be:
- 3319** a) observations taken at fixed times;
- 3320** b) warnings of dangerous phenomena;
- 3321** c) forecasts and warnings;
- 3322** d) statements of the general meteorological situation.
- 3323** § 2. (1) The various national meteorological services mutually agree to prepare common transmission programmes so as to use the transmitters best situated to serve the regions concerned.
- 3324** (2) The meteorological observations contained in the classes mentioned in Nos. 3313 to 3316 should be drawn up in an international meteorological code, whether they are transmitted by or intended for mobile stations.
- 3325** § 3. For observation messages intended for an official meteorological service, use shall be made of the frequencies made available for meteorological purposes, in conformity with regional agreements made by the services concerned for the use of these frequencies.
- 3326** § 4. (1) Meteorological messages specially intended for all ship stations shall in principle be sent in accordance with a definite timetable,

and, as far as possible, at times when they can be received by ship stations with only one operator. In radiotelegraphy the transmission speed shall not exceed sixteen words a minute.

3327 (2) During the transmission "to all stations" of meteorological messages intended for stations of the maritime mobile service, all stations of this service whose transmission might interfere with the reception of these messages shall keep silent in order to permit all stations which desire to do so to receive these messages.

3328 (3) Meteorological warning messages for the maritime mobile service shall be transmitted without delay. They shall be repeated at the end of the first silence period which follows their receipt (see Nos. 3038 and 3052) as well as during the next appropriate broadcast as indicated in the List of Radiodetermination and Special Service Stations. They shall be preceded by the safety signal and sent on the appropriate frequencies (see No. 3224).

3329 (4) In addition to the regular information services contemplated in the preceding sub-paragraphs, administrations shall take the necessary steps to ensure that certain stations shall, upon request, communicate meteorological messages to stations in the maritime mobile service.

3330 (5) The provisions of Nos. 3326 to 3329 are applicable to the aeronautical mobile service, in so far as they are not contrary to more detailed special agreements which ensure at least equal protection to air navigation.

3331 § 5. (1) Messages originating in mobile stations and containing information concerning the presence of cyclones shall be transmitted, with the least possible delay, to other mobile stations in the vicinity and to the appropriate authorities at the first point of the coast with which contact can be established. Their transmission shall be preceded by the safety signal.

3332 (2) Any mobile station may, for its own use, listen to messages containing meteorological observations sent out by other mobile stations, even those which are addressed to a national meteorological service.

3333 (3) Stations of the mobile services which transmit meteorological observations addressed to a national meteorological service are not required to repeat them to other stations. However, the exchange between mobile stations, on request, of information relating to the state of the weather is authorized.

Section II. Notices to Mariners

3334 § 6. The provisions of Nos. 3326 to 3330 shall apply to notices to mariners.

3335 § 7. Messages containing information concerning the presence of dangerous ice, dangerous wrecks, or any other imminent danger to marine navigation, shall be transmitted as soon as possible to other ship stations in the vicinity, and to the appropriate authorities at the first point of the coast with which contact can be established. These transmissions shall be preceded by the safety signal.

3336 § 8. When thought desirable, and provided the sender agrees, administrations may authorize their land stations to communicate information concerning maritime damage or casualties or information of general interest to navigation to the marine information agencies approved by them and subject to the conditions fixed by them.

Section III. Medical Advice

3337 § 9. Mobile stations requiring medical advice may obtain it through any of the land stations shown as providing this service in the List of Radiodetermination and Special Service Stations.

3338 § 10. Radiotelegrams and radiotelephone calls concerning medical advice may be preceded by the appropriate urgency signal (see Nos. 3198 to 3208).

Mob-83 Section IV. Narrow-band Direct-printing Telegraphy System for Transmission of Navigational and Meteorological Warnings and Urgent Information to Ships (NAVTEX)

3339 § 11. In addition to existing methods, navigational and meteorological warnings and urgent information shall be transmitted by means of narrow-band direct-printing telegraphy, with forward error correction, by selected coast stations and their

RR42-4

operational details shall be indicated in the List of Radiodetermination and Special Service Stations (see Nos. 3323, 3326 and 3334). Information is also published in a separate list in accordance with Resolution 318 (Mob-83).

3340 § 12. The mode and format of transmission should be in
Mob-83 conformity with relevant CCIR Recommendations.

3341 § 13. In the maritime mobile service the frequency 518 kHz
Mob-83 shall be used for the automatic narrow-band direct-printing telegraphy system for transmission of navigational and meteorological warnings and urgent information to ship stations in the MF band (see No. 474).

3342
to
3361 NOT allocated.

- 28 -
MOB-87/DL/3-E

WORKING GROUP 4-A

MOB 451

~~The use of~~ In the bands 70 - 90 kHz (70 - 86 kHz in Region 1) and 110 - 130 kHz (112 - 130 kHz in Region 1) ~~by the radionavigation service is limited to continuous wave systems,~~ pulsed radionavigation systems are allocated on a secondary basis on the condition that they do not cause harmful interference to maritime radiocommunications or continuous wave radionavigation systems.

I. KARJALAINEN
Chairman of Working Group 4-A

REPLY:

P. Sheldon
USA Box 235

WORKING GROUP 4-CLIST OF ITEMS TO BE CONSIDERED BY WORKING GROUP 4-C
IN RELATION TO APPENDIX 31

1. Channel spacing for radiotelephony with nominal carrier frequencies on integer multiples of 1 kHz (Resolution No. 319, resolves 3)
2. Inclusion of the bands mentioned in RR 532 in Appendix 31
3. Possible inclusion of the shared bands 4 000 - 4 063 kHz and 8 100 - 8 195 kHz in Appendix 31 (Resolution No. 319, considerings a) and b))
4. GMDSS frequencies (Resolution No. 319, resolves 4)
5. Location of GMDSS frequencies
6. Guard bands and GMDSS frequencies
7. Frequency spacing between ships and coast stations for duplex operation
8. Sequence of sub-bands
9. Sub-bands for coast stations for wideband telegraphy etc.
10. Sub-bands for ship stations for radiotelephony, duplex operations
11. Sub-bands for ship and coast stations for telephony, simplex operation
12. Sub-bands for ship stations for wideband telegraphy etc.
13. Sub-bands for ship stations for oceanographic data transmission
14. Sub-bands for ship stations for NBDP telegraph (paired frequencies) and data transmission systems, at speeds not exceeding 100 bauds
15. Sub-bands for ship stations for NBDP telegraph (non-paired frequencies) and data transmission systems, at speeds not exceeding 100 bauds
16. Sub-bands for ship stations for A1A or A1B Morse telegraphy (working frequencies)
17. Sub-bands for ship stations for A1A or A1B Morse telegraphy (calling frequencies)

18. Sub-bands for DSC
19. Spacing between the various sub-bands
20. Channel spacing in the sub-bands for Morse telegraphy calling
21. Channelling for the various types of telegraphy
22. Phased transition from Morse telegraphy to NBDP telegraphy
23. Harmonic relationships for A1A Morse telegraphy calling frequencies
24. Possible need for DSC frequencies for national purposes
25. Use of NBDP telegraph frequencies for A1A Morse telegraphy
26. Possible merging of Appendices 16, 32, 33, 34 and 35 into a revised appendix
27. Contiguous sub-bands for each type of transmission

A.R. VISSER
Chairman of Working Group 4-C

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Appendix 11.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

ATTACHMENT

APPENDIX 11

J/60/582

MOD Documents with Which Stations on Board Ships
and Aircraft ~~Stations~~ Shall Be Provided

D/30/84

MOD (Sec Articles 24, 26, 44, 46, 49, 54 A, 55, 57, 59 and Appendix 9)

AUS/40/557

MOD Section I. Ship Stations for Which a Morse
Radiotelegraph Installation is Required
by International Agreement

Reason: This Section applies to manual Morse radiotelegraph
installations.

D/30/84

MOD Section I. Ship Stations for Which a Radiotelegraph (Morse) Installation
Is Required by International Agreement

G/33/253

MOD Section I. Ship Stations for Which a Morse Radiotelegraph
Installation is Required by International Agreement

J/60/583

MOD Section I. Ship Stations for which a Morse
Radiotelegraph Installation is Required by
International Agreement

USA/24/660

MOD Section I. Ship Stations for Which
a Morse Radiotelegraph Installation Is Required
by International Agreement

Reason: This applies to manual Morse radiotelegraph
installations.

AUS
CAN
D
G
J
USA

NOC These stations shall be provided with:
NOC 1. the licence prescribed by Article 24;
NOC 2. certificates of the operator or operators;

AUS/40/558

- MOD 3. the a log (diary-of-the-radio-service) in which the following are recorded as they occur, together with the time of the occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

NOC a) to g)

Reason: To provide for administrations to adopt flexible arrangements for recording log information.

D/30/85

MOD

3. the log (diary of the radio service) ~~in which the following are recorded as they occur, together with the time of their occurrence;~~

D/30/86

SUP

- ~~a) all communications relating to distress traffic in full;~~

D/30/87

SUP

- ~~b) urgency and safety communications;~~

D/30/88

SUP

- ~~c) observance of watch on the international distress frequency during silence periods;~~

D/30/89

SUP

- ~~d) communications exchanged between the ship station and land or mobile stations;~~

D/30/90

SUP

- ~~e) service incidents of all kinds;~~

D/30/91

SUP

- ~~f) if the ship's rules permit, the position of the ship at least once a day;~~

D/30/92

SUP

- ~~g) the opening and closing of each period of service;~~

G/33/254

MOD

3. the a log (diary-of-the-radio-service) in which the following are recorded as they occur, together with the time of their occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

USA/24/661

MOD

3. the a log (diary-of-the-radio-service) in which the following are recorded as they occur, together with the time of their occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

Reason: To provide for administrations to adopt flexible arrangements for recording log information.

AUS
CAN
D
G
J
USA

NOC

4. the Alphabetical List of Call Signs of Stations used in the Maritime Mobile Service;

NOC

5. the List of Coast Stations;

NOC

6. the List of Ship Stations (the carriage of the supplement is optional);

NOC

7. the List of Radiodetermination and Special Service Stations;

USA/24/662
MOD

8. the Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services *;

* Nos. 347 and 348 should be included by the General Secretariat in the Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services.

Reason: To ensure that these important provisions relating to distress radiocommunications are included in the "Maritime Manual".

AUS
CAN
D
G
J
USA

NOC

9. telegraph tariffs of the countries for which the station most frequently accepts radiotelegrams.

G/33/255
MOD

Section II. Other Ship Morse Radiotelegraph Stations

J/60/584

MOD

Section II. Other Ship Morse Radiotelegraph Stations

AUS
CAN
D
G
J
USA

NOC

These stations shall be provided with the documents mentioned in items 1 to 6, 8 and 9 of Section I.

NOC

Section III. Ship Stations for Which a Radiotelephone Installation Is Required by International Agreement

NOC

These stations shall be provided with:

NOC

1. the licence prescribed by Article 24;

NOC

2. certificates of the operator or operators;

AUS/40/559

MOD

3. the a log {diary-of-the-radio-service} in which the following are recorded as they occur, together with the time of the occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

Reason: To provide for administrations to adopt flexible arrangements for recording log information.

AUS/40/560

- SUP b) a-summary-of-communications-exchanged-between-the-ship station-and-land-or-mobile-stations.

Reason: To meet operational needs of the maritime mobile service.

AUS/40/561

(MOD) e) b)

a reference incidents.

AUS/40/562

(MOD) d) c)

if the rules ... once a day;

- D/30/93
MOD 3. ~~the log (diary of the radio service), in which the following are recorded as they occur, together with the time of their occurrence -~~
- D/30/94
SUP a) ~~a summary of all communications relating to distress, urgency and safety traffic;~~
- D/30/95
SUP b) ~~a summary of communications exchanged between the ship-station and land or mobile stations;~~
- D/30/96
SUP c) ~~a reference to important service incidents;~~
- D/30/97
SUP d) ~~if the ship's rules permit, the position of the ship at least once a day;~~

Reason: The rules relating to the keeping of a radio log which have been deleted here have been transferred to a proposed new Article (54 A).

The Sub-Committee on the Maritime Mobile Service of the IMO /Doc. COM 31/WP3) recommended that the status of the rules concerning radio logs be upgraded by listing them in a separate Article. It was also suggested that the Article should define rules applying to the keeping of a radio log in cases where automatic systems (SATCOM, NAVTEX, DSC) are used.

- G/33/256
MOD 3. the a log (diary of the radio service) in which the following are recorded as they occur, together with the time of their occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

- G/33/257
SUP b)
- G/33/258
(MOD) -e) b) a reference to important service incidents;
- G/33/259
(MOD) -d) c) if the day;

- USA/24/663
MOD 3. the a log (diary of the radio service) in which the following are recorded as they occur, together with the time of their occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

Reason: To provide for administrations to adopt flexible arrangements for recording log information.

- USA/24/664
SUP b) ~~a summary of communications exchanged between the ship-station and land or mobile stations;~~

Reason: To meet operational needs of the maritime service.

- USA/24/665
(MOD) e) b) a reference to important service incidents;
- USA/24/666
(MOD) d) c) if the ship's rules permit, the position of the ship at least once a day;

- NOC 4. a list of coast stations with which communications are likely to be conducted, showing watchkeeping hours, frequencies and charges;
- NOC 5. the provisions of the Radio Regulations and of the CCITT Resolutions and Recommendations applicable to the maritime mobile radiotelephone service, or the Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services.

NOC **Section IV. Other Ship Radiotelephone Stations**

NOC These stations shall be provided with:

- NOC 1. the documents mentioned in items 1 and 2 of Section III;
- NOC 2. the documents mentioned in items 3, 4 and 5 of Section III, in accordance with the requirements of the administrations concerned.

Section V. Ship Stations Equipped with Multiple Installations

These stations shall be provided with:

- NOC 1. for each installation, if necessary, the documents mentioned in items 1 to 3 of Section I, or in items 1, 2 and 3 of Section III;
2. for only one installation, the other documents mentioned in Sections I or III, as appropriate.

AUS
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J
USA

G/33/260
ADD

Section VA. Ship Stations Complying with the Provisions for Automated Communications¹

G/33/261
ADD

¹ These communications are initiated using techniques that are entirely or largely automated, and they include distress, urgency and safety calls and messages.

G/33/262
ADD

These stations shall be provided with:

G/33/263
ADD

1. the licence prescribed by Article 24;

G/33/264
ADD

2. certificates of the operator or operators;

G/33/265
ADD

3. a log in which the following are recorded as they occur, together with the time of their occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

G/33/266
ADD

a) a summary of communications relating to distress, urgency and safety traffic;

G/33/267
ADD

b) a reference to important service incidents;

G/33/268
ADD

c) if the ship's rules permit, the position of the ship at least once a day;

G/33/269
ADD

4. the Alphabetical List of Call Signs of Stations used in the Maritime Mobile Service;

G/33/270
ADD 5. a list of selected coast stations and coast earth stations in accordance with Nos. N3038 and N30388 of the Radio Regulations; a list of coast stations and coast earth stations with which communications are likely to be conducted, showing watchkeeping hours, frequencies and charges; and a list of coast stations which provide navigational and meteorological warnings and urgent information for ships;

G/33/271
ADD 6. the List of Ship Stations (the carriage of the supplement is optional);

G/33/272
ADD 7. the Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services.

G/33/273
ADD NOTE: Administrations may exempt ships sailing only within range of VHF coast stations from the carriage of the documents mentioned in paragraphs 4 to 7 above.

J/60/585
ADD Section VA. Stations on board ships participating in the GMDSS

J/60/586
ADD These stations shall be provided with:

J/60/587
ADD 1. the documents mentioned in items 1 and 2 of Section I;

J/60/588
ADD 2. the log (diary of the radio service) in which the following are recorded as they occur, together with the time of their occurrence:

a) a summary of all communications relating to distress, urgency and safety traffic¹;

J/60/589
ADD ¹ This requirement should not apply where there are alternative measures equivalent to recording in the log, such as the storage of print-out of the contents of the communications.

J/60/590
ADD b) items useful to the service;

J/60/591
ADD c) if the ship's rules permit, the position of the ship at least once a day.

J/60/592
ADD 3. a list of stations with which communications are likely to be conducted, showing watch keeping hours, frequencies and charges;

J/60/593
ADD 4. the Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services.

Reason: To specify the documents with which ship stations/ship earth stations participating in the GMDSS shall be provided.

J/60/594

MOD

Section VI Aircraft Stations and Aircraft Earth Stations

Reason: To make this appendix applicable to the aircraft earth stations.

AUS
CAN
D
G
J
USA

NOC

These stations shall be provided with:

NOC 1.

the documents mentioned in items 1 and 2 of Section I;

AUS/40/563

MOD 2.

The log (diary of the radio service) as-defined-in-item-3 of-Section-I, unless administrations have adopted other arrangements for recording all informations which the log should contain.

CAN/25/400
SUP

2.

Reason: There is no longer a valid requirement for aircraft stations to maintain a log (diary of the radio service).

CAN/25/401

(MOD) ~~3.2.~~ the documents....

AUS/40/563

NOC 3.

Reason: Consequential to the modification of item 3 in Section I.

G/33/273

NOC 1 - 3

Reason: To specify Morse telegraphy as appropriate; to provide for administrations to adopt flexible arrangements for log-keeping; and to provide log-keeping arrangements (on a flexible basis) for those ships complying with the provisions for automated communications.

ADD

Section VII. Ships Using Automated Communications

ADD

ADD These stations shall be provided with:

ADD

ADD 1. The licence prescribed by Article 24:

ADD

ADD 2. certificates of the operator or operators:

ADD

ADD 3. a log in which the following are recorded as they occur, together with the time of the occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

ADD

ADD a) a summary of communications relating to distress, urgency and safety traffic;

ADD

ADD b) a reference to important service incidents:

ADD

ADD c) if the ship's rules permit, the position of the ship at least once a day;

ADD

ADD 4. a list of selected coast stations in accordance with Nos. N3038 and N3038B and coast stations with which communications are likely to be conducted, showing watchkeeping hours, frequencies and charges;

ADD

ADD 5. The Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Service;

ADD

ADD 6. the List of Ship Stations (the carriage of the supplements is optional).

Reason: To provide documents that ship stations using automated communications and the GMDSS will need to operate the service.

ADD

Section VII. Ships Meeting the Requirement of the GMDSS

ADD

These ships shall be provided with:

ADD

1.

the license prescribed by Article 24;

ADD

2.

certificates of the operator or operators:

ADD

3.

a log in which the following are recorded as they occur, together with the time of their occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:

ADD

a) a summary of communications relating to distress, urgency and safety traffic;

ADD

b) a reference to important service incidents;

ADD

c) if the ship's rules permit, the position of the ship at least once a day;

- USA/24/675
ADD 4. a list of selected coast stations in accordance with Nos. N 3038 and N 3038B and coast stations with which communications are likely to be conducted, showing watchkeeping hours, frequencies and charges;
- USA/24/676
ADD 5. the Manual for Use by the Maritime Mobile and Maritime Mobile Satellite Service;
- USA/24/677
ADD 6. the List of Ship Stations (the carriage of the supplement is optional).

Reason: To provide the documents that ship stations of the GMDSS will need to operate the service.

WORKING GROUP 5-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 5-B

The Administration of the German Democratic Republic in their Document 7 supported the amendments suggested by the International Maritime Organization (IMO) in MSC Circular 424. The section of that circular dealing with Chapter IX of the Radio Regulations is reproduced in the annex.

As recommended by the Chairman of Committee 5, for completeness the remaining texts of MSC Circular 424 have been included for information.

T. HAHKIO
Chairman of Working Group 5-B

Annex: 1

ANNEX

MSC/Circ.424
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ANNEX 3

MODIFICATIONS TO CHAPTER IX
OF THE ITU RADIO REGULATIONS

NOC

Distress and Safety Communications

ARTICLE 37

General Provisions

MOD 2930 The provisions ~~provided~~ specified in this chapter are ~~is~~ obligatory (see Resolution No.A) in the maritime mobile service for stations using the frequencies and techniques prescribed in this Chapter and for communications between these ~~aircraft~~ stations and aircraft stations ~~of the maritime mobile service~~. However, stations of the maritime mobile service, when additionally fitted with any of the equipment used by stations operating in conformity with the provisions specified in Chapter N IX shall, when using that equipment, comply with the appropriate provisions of that Chapter. The provisions of this chapter are also applicable to the aeronautical mobile service except in the case of special arrangements between the governments concerned.

Reason: To prescribe the extent of the application of this chapter and to allow ships not subject to the SOLAS Convention to choose to comply with all or parts of chapter N IX.

NOC 2931

SUP 2932 - 2934

Reason: Consequential to the modification of Nos. 347 and 348.

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NOC 2935 - 2937

MOD 2937A Distress, urgency and safety transmissions may also be made, ~~using~~ using digital selective calling, and satellite techniques, and/or direct printing telegraphy in accordance with the provisions of Chapter N IX and relevant CCIR Recommendations, and/or direct printing telegraphy.

Reason: Consequential to other revisions.

MOD 2938 The abbreviation and signals of Appendix 14 and the Phonetic Alphabet and Figure Code in Appendix 24 and the Standard Marine Navigational Vocabulary should be used where applicable and, where language difficulties exist, the use of the International Code of Signals also is recommended.

Reason: To include reference to a useful aid for safety communications.

NOC 2939-2943.1

SUP 2944-2949

Reason: The intent of these regulations is included in Resolution No.A.

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ARTICLE 38

NOC Frequencies for Distress and Safety

NOC Section I. Availability of Frequencies

SUP 2967 and 2968

Reason: These provisions relate exclusively to the new system and have been included in Article N 38.

(MOD) 2969 ~~B/~~ A. 500 kHz

MOD 2970 The frequency 500 kHz is the international distress frequency for Morse telegraphy (see also No. 472); it may ~~shall~~ be used for this purpose by ship, aircraft and survival craft stations employing frequencies in the bands between 415 kHz and 535 kHz when requesting assistance from the maritime services. It may ~~shall~~ be used for the distress call and distress traffic, for the urgency signal and urgency messages, for the safety signal and, outside regions of heavy traffic, for short safety messages. When practicable, safety messages shall be transmitted on the working frequency after a preliminary announcement on 500 kHz (see also No. 4236). For distress and safety purposes, the classes of emission to be used on 500 kHz shall be A2A, A2B, H2A or H2B (see also No. 3042 and Resolution No.A).

Reason: To take account of the change in the status and role of this frequency, but to allow for its continued use for distress and safety where administrations wish to provide for such use.

NOC 2971

SUP 2971A and 2971B

Reason: These provisions relate exclusively to the new system and have been included in Article N 38.

SUP 2971C and SUP 2971D

Reason: See No. 2971B.

(MOD) 2972 ~~E/~~ B. 2182 kHz

MOD 2973 The carrier frequency 2182 kHz¹ is an international distress frequency for radiotelephony (see also Nos. 500 and 501); it may also ~~shall~~ be used for this purpose by ship, aircraft and survival craft stations and by emergency position-indicating radiobeacons using frequencies in the authorized bands between 1605 kHz and 4000 kHz when requesting assistance from the maritime services. It may be ~~is~~ used for the distress call and distress traffic, for signals of emergency position-indicating radiobeacons, for the urgency signal and urgency messages and for the safety signal. Safety messages shall be transmitted, where practicable, on a working frequency after a preliminary announcement on 2182 kHz (see Resolution No.A). The class of emission H3E ~~may~~ be used for radiotelephony on the frequency 2182 kHz ~~shall be used~~. Class A3E emission may continue to be used by apparatus provided solely for distress, urgency and safety purposes (see No. 4127). The class of emission to be used by emergency position-indicating radiobeacons shall be as specified in appendix 37 (see also Nos. 3265 and N 2973). The class of emission J3E may be used for the exchange of distress traffic on 2182 kHz ~~following the acknowledged reception of the distress call using digital selective calling techniques on 2187.5 kHz~~ taking into account that other shipping in the vicinity may not be able to receive this traffic.

Reason: To take account of the change in status and role of 2182 kHz and of the provisions placed in No. N 2973.

NOC 2973.1

NOC 2974-2978

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SUP 2978A and 2978B

Reason: See No. 2971B.

NOC 2979-2981

MOD 2982 The carrier frequency 4125 kHz may be ~~is~~ used to supplement the carrier frequency of 2182 kHz for distress and safety purposes and for call and reply (see also Nos. 520 and N 2982) ~~This frequency is also used for distress and safety traffic by radiotelephony (see No. 2944).~~

Reason: To retain the use of 4125 kHz as a supplement to 2182 kHz.

NOC 2982A

SUP 2982B-2982E

Reason: See No. 2971B.

NOC 2983-2985

MOD 2986 The carrier frequency 6215.5 kHz may be ~~is~~ used to supplement the carrier frequency 2182 kHz for distress and safety purposes and for call and reply (see also Nos. 520 and N 2986). ~~This frequency is also used for distress and safety traffic by radiotelephony (see No. 2944).~~

Reason: To retain the use of 6215.5 kHz as a supplement to 2182 kHz.

SUP 2986A-2986H

Reason: See No. 2971B.

NOC 2987 and 2988

SUP 2988A - 2988N

Reason: See No. 2971B.

(MOD) 2989 Y/ H. 121.5 MHz and 123.1 MHz

NOC 2990A - 2991

(MOD) 2992 Z/ I. 156.3 MHz

NOC 2993

SUP 2993A - 2993B

NOC 2993C

MOD 2993D To be modified to delete reference to 2944.

Reason: See No. 2971B.

(MOD) 2993E A0/J. 156.8 MHz

MOD 2994 The frequency 156.8 MHz is an ~~the~~ international distress, safety and calling frequency for radiotelephony and may be used by ~~for~~ stations of the maritime mobile service when they use frequencies in the authorized bands between 156 MHz and 174 MHz (see also Nos. 501 and 613). It is used for distress and safety traffic and may be ~~is~~ used for the distress signal and the distress call, ~~and distress traffic~~ as well as for the urgency signal, urgency traffic and the safety signal (see also No. 2995A). Safety messages shall be transmitted where practicable on a working frequency after a preliminary announcement on 156.8 MHz. The class of emission to be used for radiotelephony on the frequency 156.8 MHz shall be G3E (see ~~No. 2944~~ also No. N 2994 ~~and~~ appendix 19, and Resolution No.A).

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NOC 2995 and 2995A

SUP 2995B and 2995C

Reason: See No. 2971B.

(MOD) 2996 ~~AE/~~ K. 243 MHz

(MOD) 2997 ~~AY/~~ L. 406 - 406.1 MHz Band

NOC 2997A

(MOD) 2998 ~~AG/~~ M. 1544 - 1545 MHz Band

NOC 2998A - 2998C

(MOD) 2998D ~~AN/~~ N. 1645.5 - 1646.5 MHz Band

NOC 2998E

(MOD) 2999 ~~AO/~~ O. Aircraft in Distress

NOC 3000

(MOD) 3001 ~~AP/~~ P. Survival Craft Stations

NOC 3002 - 3008

SUP 3008A - 3008D

Reason: See No. 2971B.

NOC Section II. Protection of
Distress and Safety Frequencies

NOC 3009 A. General

MOD 3010 Except as provided for in ~~Mob/2944/2949/Add/3011~~ these Regulations, any emission capable of causing harmful interference to distress, alarm, urgency or safety communications on the international ~~distress~~ frequencies 490 kHz, 500 kHz, 2174.5 kHz, 2182 kHz, 2187.5 kHz, 4125 kHz, 4177.5 kHz, 4188 kHz, 6215.5 kHz, 6268 kHz, 6282 kHz, 8257 kHz, 8357.5 kHz, 8375 kHz, 12392 kHz, 12520 kHz, 12563 kHz, 16522 kHz, 16695 kHz, 16750 kHz, 156.525 kHz, or 156.8 MHz ~~of 156/1825/MHz/1665/4188/Mob/M/3010/of/on/the/distress/and/safety~~ ~~4177.5/4125/4188/490/kHz/2187.5/kHz/4125/kHz/4188/kHz/6215.5/kHz/6282/kHz/8357.5/kHz/8375/kHz/12392/kHz/12520/kHz/12563/kHz/16522/kHz/16695/kHz/16750/kHz/of/156/1825/MHz~~ is prohibited. Any emission causing harmful interference to distress and safety communications on any of the other frequencies identified in Section I of this Article is prohibited.

Reason: To maintain the required protection of distress and safety frequencies while taking account of the change in the roles of some of them.

NOC 3011

MOD 3016 It is not permitted to transmit complete alarm signals for testing purposes on any frequency except for essential tests co-ordinated with competent authorities. As an exception, such tests are permitted for radiotelephone equipment which can operate only on the international distress frequencies 2182 kHz or 156.8 MHz, in which case a suitable artificial antenna shall be employed. However, this exception ceases 1 July 1996.

Reason: To take account of the changing role of these frequencies and to provide for the cessation of use of equipment capable of operating on only them and to incorporate No. 5061 in this provision.

NOC 3016A and 3016B

NOC 3017

B. 500 kHz

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- MOD 3018 Apart from the transmissions authorized on ~~490~~/kHz/~~and~~
500 kHz, and taking account of No. 4226, all transmissions on the
frequencies included between ~~490~~ 495 kHz and ~~510~~ 505 kHz are
forbidden (see No. 471 ~~and Resolution No. 1/206(Mob+83)~~).
- NOC 3019 - 3022
- MOD 3023 Except for transmissions authorized on the carrier frequency
2182 kHz and on the frequencies 2174.5 kHz and 2187.5 kHz all
transmissions on the frequencies between 2173.5 kHz and 2190.5 kHz are
forbidden (see also N 3023).
- NOC 3026 - 3031B
- MOD 3032 E. 156.8/MHz 156.7625 - 156.8375 MHz Band
- MOD 3033 All emissions in the band 156.7625 - 156.8375 MHz capable of
causing harmful interference to the authorized transmissions of stations
of the maritime mobile service on 156.8 MHz are forbidden. The frequency
156.825 MHz may, however, be used for ~~the purpose of~~ distress traffic
using direct printing (see also No. N 2995C) ~~deactivated in No. 1/2995C~~
subject to not causing interference to authorized transmissions on
156.8 MHz (see also note m) of appendix 18).
- NOC 3036
- NOC Section III. Watch on Distress Frequencies
- NOC 3037 A. 500 kHz
- MOD 3038 In order to increase the safety of life at sea and over the
sea, all stations of the maritime mobile service normally keeping watch
on frequencies in the authorized bands between 415 kHz and 526.5 kHz and
using morse telegraphy in these bands may ~~shall~~, during their hours of
service, take the necessary measures to ensure watch on the international
distress frequency 500 kHz for three minutes twice an hour beginning at x
h 15 and h 45, Coordinated Universal Time (UTC) by an operator using
headphones or loudspeaker. (See Resolution No.A.)

NOC 3039

MOD 3040 a) transmissions shall cease in the ~~bands~~ band between ~~485~~ 495 kHz and ~~515~~ 505 kHz (~~see/also~~ Resolution No. 206(Mob+87));

MOD 3041 b) outside ~~this band~~ this band, transmissions of stations of the mobile service may continue; stations of the maritime mobile service may listen to these transmissions

on the express condition that they first ensure watch on the distress frequency ~~as required by~~ in accordance with No. 3038.

Reason: To provide for the continuation of the watch and the silence periods on 500 kHz for those ships not availing themselves of new system provisions, and to narrow the band in which transmissions will cease during the silence periods, in recognition of the possible implementation of the 10 kHz guardband by WARC-Mob-87 and the use of 490 kHz for the transmission of distress alerts.

MOD 3042 Stations of the maritime mobile service, open to morse telegraphy public correspondence and using frequencies in the authorized bands between 415 kHz and 526.5 kHz ~~shall~~ may, during their hours of service, remain on watch on 500 kHz ~~this watch is obligatory only~~ for class A2A and H2A emissions. (See also Resolution No.A).

NOC 3043 These stations, while observing the ~~requirements~~ provisions of No. 3038, are authorized to relinquish this watch ~~only~~ when they are engaged in communications on other frequencies.

NOC 3044 - 3046

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MOD 3046A Ship stations, while observing the ~~requirements~~ provisions¹ of No. 3038, are also authorized to relinquish this watch when it is impractical to listen by split headphones or by loudspeaker and by order of the master in order to repair or carry out maintenance required to prevent imminent malfunction of:

NOC 3046A.1

NOC 3046B - 3046E

Reason: To specify the conditions of the watch on 500 kHz.

NOC 3047 B. 2182 kHz

MOD 3048 Coast stations, which are open to public correspondence ~~and which for all essential part of the coverage of the area for distress purposes shall~~ may, during their hours of service, maintain a watch on 2182 kHz. (See also Resolution No.A).

NOC 3049

MOD 3050 In addition, ship stations not keeping an automatic digital selective calling watch on 2187.5 kHz (see No. N 3050) should keep the maximum watch practicable on the carrier frequency 2182 kHz for receiving by any appropriate means the radiotelephone alarm signal described in No. 3270, and the navigational warning signal described in Nos. 3284, 3285 and 3286, as well as distress, urgency and safety signals. (See also Resolution No.A).

MOD 3051 Ship stations open to public correspondence and not keeping an automatic digital selective calling watch on 2187.5 kHz (see No. N 3051) should, as far as possible during their hours of service, keep watch on 2182 kHz. (See also Resolution No.A).

MOD 3052 In order to increase the safety of life at sea and over the sea, all stations of the maritime mobile service normally keeping watch on frequencies in the authorized bands between 1605 kHz and 2850 kHz but not keeping an automatic digital selective calling watch on 2187.5 kHz (see No. N 3052) ~~shall~~ are encouraged, during their hours of service, ~~and as far as possible take steps~~ to keep watch on the international distress carrier frequency 2182 kHz for three minutes twice each hour beginning at x h 00 and x h 30 Coordinated Universal Time (UTC).

MOD 3052A During the periods referred to in No.3052 all transmissions, except those provided for in this chapter and in Chapter N IX, shall cease in the band 2173.5 - 2190.5 kHz. (See also Resolution No.A).

Reason: To prescribe the conditions for the watch on 2182 kHz when the maritime distress and safety system is introduced.

NOC 3053 C. 4125 kHz and 6215.5 kHz

NOC 3054 and 3055

NOC 3056 D. 156.8 MHz

MOD 3057 A coast station providing an international maritime mobile radiotelephone service in the band 156 - 174 MHz ~~and which forms an essential part of the coverage of the area for distress purposes~~ ~~should~~ may, during its working hours in that band, maintain an ~~efficient~~ aural watch on 156.8 MHz. ~~(see Recommendation No.106)~~ Resolution No.A).

MOD 3058 Ship stations not keeping an automatic digital selective calling watch on 156.525 MHz should, where practicable, maintain watch on 156.8 MHz when within the service area of a coast station providing international maritime mobile radiotelephone service in the band 156 - 174 MHz. (See also Resolution No. A.) These ship stations, if fitted only with VHF radiotelephone equipment operating in the authorized bands between 156 MHz and 174 MHz, should maintain watch on 156.8 MHz, when at sea.

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NOC 3059 - 3060

ARTICLE 40

Urgency and Safety Transmissions and Medical Transports

Section I. Urgency and Safety Messages

MOD 3196 In Morse radiotelegraphy,

Reason: To avoid any conflict with similar provisions for narrow-band direct-printing telegraphy.

MOD 3197 In radiotelephony, the urgency signal consists of ~~three~~
~~repetitions of~~ the group of words PAN PAN, each word of the group pronounced as the French word "panne". The urgency signal shall be repeated three times ~~repeated~~ before the call.

Reason: Consistent with the provision for the distress signal (No. 3089), to define the signal as a single use of the group of words while retaining the three repetitions of it in this chapter. This permits the signal to be described and used in the same way in the new chapter but, for NBDP, allows for the single use of these words.

NOC 3198 - 3208

NOC Section II. Medical Transports

Section III. Safety Signal and Messages

MOD 3221 In Morse radiotelegraphy

Reason: See No. 3196.

MOD 3222 In radiotelephony, the safety signal consists of the word SECURITE pronounced clearly as in French, ~~spoken/three/times/and transmitted/before/the/call~~. The safety signal shall be repeated three times before the call.

Reason: See No. 3197.

NOC 3223 - 3226

NOC Article 41

ARTICLE 42

Special Services Relating to Safety

NOC Sections I to III.

SUP Section IV and Nos. 3339 to 3341.

Reason: Consequential to the inclusion of NAVTEX provisions in the new chapter.

ANNEX 5

RESOLUTION NO.A

Relating to the Introduction of Provisions for Automated Communications for Maritime Distress and Safety and the Continuation of the Existing Distress and Safety Provisions.

The World Administrative Radio Conference for the Mobile Services, Geneva, 1987.

noting

that the International Maritime Organization (IMO):

- a) has adopted a Resolution^{1/} on the subject of the maritime distress and safety system;
- b) has developed the requirements of a maritime distress and safety system;
- c) [has prepared] revisions to chapter IV, Radiotelegraphy and Radiotelephony, of the International Convention for the Safety of Life at Sea, (SOLAS) 1974, which specifies the requirements for certain ships to participate in the future global maritime distress and safety system;

further noting

- a) that the revisions to chapter IV of SOLAS are intended to enter into force [1 February 1990];
- b) that the transition to the use of the provisions of the new chapter IV of SOLAS is scheduled to be completed by [1 February 1996] by stations subject to the SOLAS Convention;

^{1/} IMO resolution A.420(XI) dated 15 November 1979.

considering

- a) that this Conference has decided to place the radio regulations for the new maritime distress and safety system in a new chapter N IX;
- b) that this Conference has decided to modify chapter IX, Distress and Safety Communications, to limit its application to those stations not complying with the provisions of chapter N IX;
- c) that, in the MF, HF and VHF bands, frequencies have been identified for international distress and safety calling using digital selective calling;
- d) that, when the new system is fully implemented, stations subject to the SOLAS Convention will no longer use 500 kHz, 2182 kHz or 156.8 MHz for distress calling;
- e) that it will be necessary to maintain in force elements of the existing distress and safety system, in areas where they are required, for adequate periods of time;

recognizing

- a) that the Final Acts of this Conference are to come into force [1 July 1989], thereby ensuring that the radio regulations required in support of the new maritime distress and safety system will be in place when that system begins implementation;
- b) that administrations do not wish to maintain both an aural distress watch on distress and safety calling frequencies and an automatic distress watch on DSC distress and safety calling frequencies any longer than necessary;
- c) that it will be advantageous to all concerned if stations which are not required to comply with the provisions of chapter N IX nevertheless do conform to those provisions, in whole or in part, at the earliest possible date;

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resolves

that the transition procedure in Annex A to this Resolution shall be used for the introduction of the new maritime distress and safety system while retaining the existing distress and safety system and also to permit the continued use of the existing system as long as necessary;

urges Administrations

to encourage the use of the new maritime distress and safety system by all stations of the maritime mobile and maritime mobile-satellite services. In the interests of efficient use of the radio frequency spectrum, the requirement for administrations to maintain two parallel distress and safety systems should not be continued longer than is necessary..

invites

the next competent world administrative radio conference to review and revise, as necessary, the provisions for distress and safety communications contained in chapters IX and N IX and in this Resolution.

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ANNEX A TO RESOLUTION NO. A

Transition Procedure for the Introduction of the
New Maritime Distress and Safety System

PART I

Entry Into Force of the Provisions for the New System

1 This Conference has placed the regulations for Automated Communications for Distress and Safety in chapter N IX of the ITU Radio Regulations. The format parallels that in chapter IX of the Radio Regulations with modifications to take account of the differences in system concepts. chapter N IX is contained in the Final Acts of WARC-Mob-87 which enter into force [1 July 1989].

2 The provisions of chapter N IX provide the regulatory environment for ship stations and ship earth stations to comply with the provisions of the revised chapter IV of the SOLAS Convention which is scheduled to enter into force [1 February 1990]. For other stations, the provisions of chapter N IX and chapter IX have been arranged to permit compliance with any or all parts of the new maritime distress and safety system without impinging upon the distress communications system provided in chapter IX.

PART II

Transition Procedure for the Use of the Frequencies 500 kHz, 2182 kHz and 156.8 MHz by stations of the Maritime Mobile Service

This Conference has revised the provisions for distress and safety communications contained in chapter IX of the Radio Regulations. These revisions were made for the purpose of establishing a regulatory arrangement that would not require extensive modification in the near future. To this end, changes were made to regulations relating to the distress and safety use of the frequencies 500 kHz, 2182 kHz and 156.8 MHz. It is recognized, however, that there is a need to provide for ships which are not required by international conventions to participate in the global maritime distress and safety system. Consequently, the following transition procedure shall be applied to the uses and frequencies and for the periods of time indicated.

Section I. 500 kHz

1 The provisions described in this Section shall apply until [1 February 1996] and shall terminate on that date.

2 The frequency 500 kHz is the international distress frequency for Morse telegraphy (see also No. 472); it shall be used for this purpose by ship, aircraft and survival craft stations employing frequencies in the bands between 415 kHz and 535 kHz when requesting assistance from the maritime services. It shall be used for the distress call and distress traffic, for the urgency signal and urgency messages, for the safety signal and, outside regions of heavy traffic, for short safety messages. When practicable, safety messages shall be transmitted on the working frequency after a preliminary announcement on 500 kHz (see also No. 4236). For distress and safety purposes, the classes of emission to be used on 500 kHz shall be A2A, A2B, H2A or H2B (see also paragraph 4 of this Section)(cf. No. 2970).

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3 In order to increase the safety of life at sea and over the sea, all stations of the maritime mobile service normally keeping watch on frequencies in the authorized bands between 415 kHz and 526.5 kHz shall, during their hours of service, take the necessary measures to ensure watch on the international distress frequency 500 kHz for three minutes twice an hour beginning at x h 15 and x h 45, Coordinated Universal Time (UTC) by an operator using headphones or loudspeaker (cf. No. 3038).

4 Stations of the maritime mobile service open to public correspondence and using frequencies in the authorized bands between 415 kHz and 526.5 kHz shall, during their hours of service, remain on watch on 500 kHz. This watch is obligatory only for class A2A and H2A emissions (cf. No.3042).

Section II. 2182 kHz

1 The provisions described in this Section shall apply until [1 February 1996] and shall terminate on that date.

2 The carrier frequency 2182 kHz is an international distress frequency for radiotelephony (see also Nos. 500 and 501); it shall be used for this purpose by ship, aircraft and survival craft stations and by emergency position-indicating radiobeacons using frequencies in the authorized bands between 1605 kHz and 4000 kHz when requesting assistance from the maritime services. It is used for the distress call and distress traffic, for signals of emergency position-indicating radiobeacons, for the urgency signal and urgency messages and for the safety signal. Safety messages shall be transmitted, where practicable, on a working frequency after a preliminary announcement on 2182 kHz. The class of emission to be used for radiotelephony on the frequency 2182 kHz shall be H3E. Class A3E emission may continue to be used by apparatus provided solely for distress, urgency and safety purposes (see No. 4127). The class of emission to be used by emergency position-indicating radiobeacons shall be as specified in appendix 37 (see also No. 3265). The class of emission J3E may be used for the exchange of

distress traffic on 2182 kHz following the acknowledged reception of a distress call using digital selective calling techniques on 2187 kHz taking into account that other shipping in the vicinity may not be able to receive this traffic (cf. No. 2973).

3 Coast stations which are open to public correspondence and which form an essential part of the coverage of the area for distress purposes shall, during their hours of service, maintain a watch on 2182 kHz (cf. No. 3048).

4 In order to increase the safety of life at sea and over the sea, all stations of the maritime mobile service normally keeping watch on frequencies in the authorized bands between 1605 kHz and 2850 kHz shall, during their hours of service, and as far as possible, take steps to keep watch on the international distress carrier frequency 2182 kHz for three minutes twice each hour beginning at x h 00 and x h 30 Coordinated Universal Time (UTC) (cf. No. 3052).

5 To facilitate the reception of distress calls, all transmissions on 2182 kHz shall be kept to a minimum.

6 Ship stations open to public correspondence and not complying with the provisions of chapter N IX should, as far as possible during their hours of service, keep watch on 2182 kHz.

Section III. 156.8 MHz

1 The provisions described in this section shall apply until [1 February 1996] and shall terminate on that date.

2 The frequency 156.8 MHz is the international distress, safety and calling frequency for radiotelephony for stations of the maritime mobile service when they use frequencies in the authorized bands between 156 MHz and 174 MHz (see

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also Nos. 501 and 613). It is used for the distress signal, the distress call and distress traffic, as well as for the urgency signal, urgency traffic and the safety signal (see also No. 2995A). Safety messages shall be transmitted where practicable on a working frequency after a preliminary announcement on 156.8 MHz. The class of emission to be used for radiotelephony on the frequency 156.8 MHz shall be G3E (see appendix 19)(cf. No. 2994).

3 A coast station providing an international maritime mobile radiotelephone service in the band 156 - 174 MHz and which forms an essential part of the coverage of the area for distress purposes should, during its working hours in that band, maintain an efficient aural watch on 156.8 MHz (see Recommendation No. 306)(cf. No. 3057).

4 To facilitate the reception of distress calls all transmission on 156.8 MHz shall be kept to a minimum and shall not exceed one minute.

WORKING GROUP 5-ANote by the Chairman of Working Group 5-A

PROPOSED TEXT FOR N 2943

ADD N 2943

Any aircraft required by national or international regulations to communicate for distress, urgency or safety purposes with stations of maritime mobile service that comply with the provisions of this chapter, shall be capable of transmitting ~~class J3E or H3E~~ and receiving class J3E emissions when using the carrier frequency 2 182 kHz, or class J3E emissions when using the carrier frequency [4 125 kHz], or class G3E emissions when using the frequency 156.8 MHz and optionally 156.3 MHz. However, until the full implementation of the GMDSS [(see Resolution No. A)] these aircraft stations ~~may~~ shall also be capable of transmitting and receiving class H3E emissions on the carrier frequency 2 182 kHz.

WORKING GROUP 5-ANote by the Chairman of Working Group 5-A

PROPOSED TEXT FOR N 2968

N 2968

In the maritime mobile service the frequency 490 kHz is reserved exclusively for the transmission of meteorological and navigational warnings and other urgent information by means of narrow-band direct-printing telegraphy. The frequency may be used by administrations for transmissions of such information in their national language.

U. HAMMERSCHMIDT
Chairman of Working Group 5-A

WORKING GROUP 6-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-B

In order to assist Working Group 6-B, attached is a consolidated document concerning proposals on Article 50.

Y. HIRATA
Chairman of Working Group 6-B

Attachment: 1

ATTACHMENT

ARTICLE 50

CEPT-9/16/29 USA/24/489 CAN/25/321 AUS/40/387 B/57/184 J/60/454 PRG/61/106 PHL/77/70 CTI/86/45	MOD	Title	Special Rules Relating to the Use of Frequencies in the Aeronautical Mobile Service <u>and in the Aeronautical Mobile-Satellite Service</u>
CEPT-9/16/30	MOD 3630		§ 1. Frequencies in any band allocated to the aeronautical mobile (R) service <u>and the aeronautical mobile-satellite (R) service</u> are reserved for communications related to safety and regularity of flight between any aircraft and those aeronautical stations <u>and aeronautical earth stations</u> primarily concerned with flight along national or international civil air routes <u>except as provided for in No. 3633 below.</u>
J/60/455	MOD 3630		Frequencies in any band allocated to the aeronautical mobile (R) service <u>or the aeronautical mobile-satellite (R) service</u> are reserved <u>used with priority</u> for communications related to safety and regularity of flight between any aircraft and those aeronautical stations <u>and aeronautical earth stations</u> primarily concerned with flight along national or international civil air routes.
PRG/61/107	MOD 3630		Frequencies in any band allocated to the aeronautical mobile (R) service <u>or to the aeronautical mobile-satellite (R) service</u> are reserved for communications related to safety and regularity of flight between any aircraft and those aeronautical stations <u>or aeronautical earth stations</u> primarily concerned with <u>the safety and regularity of flight</u> along national or international civil air routes.
USA/24/490 CAN/25/322 AUS/40/388 B/57/185 PHL/77/71	MOD	3630	Frequencies in any band allocated to the aeronautical mobile (R) service <u>or the aeronautical mobile-satellite (R) service</u> are reserved for communications related to safety and regularity of flight between any aircraft and those aeronautical stations <u>and aeronautical earth stations</u> primarily concerned with flight along national or international civil air routes.
CTI/86/46	SUP	3630	

CEPT-9/16/31 MOD 3631 Frequencies in any band allocated to the aeronautical mobile (OR) service or the aeronautical mobile-satellite (OR) service are reserved for communications between any aircraft and aeronautical stations and aeronautical earth stations other than those primarily concerned with flight along national or international civil air routes

J/60/456

PRG/61/108

CTI/86/46 SUP 3631

CEPT-9/16/32 (MOD)3632 §3. Frequencies in the bands allocated to the aeronautical mobile service between 2850 kHz and 22000 kHz (see Article 8) shall be assigned in conformity with the provisions of Appendices 26, 27* and 27 Aer2* and the other relevant provisions of these Regulations.

USA/24/491

CAN/25/323

AUS/40/389

B/57/186

J/60/457

PRG/61/109

CTI/86/47

AUS/40/390 SUP * Note/Nota

B/57/187

J/60/458

PRG/61/109

J/60/459 ADD 3632A

§3A. Frequencies in the band 117.975 - 137 MHz allocated to the aeronautical mobile (R) service shall be assigned in conformity with the provisions of Appendix 27A and the other provisions of these Regulations.

CEPT-9/16/33 MOD 3633 Except in the bands 1545-1559 MHz and 1646.5-1660.5 MHz administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service and the aeronautical mobile-satellite service. When the bands mentioned above are used for public correspondence with aircraft the public correspondence shall accord complete priority of communication to categories 1 to 6 of Article 51.

CAN/25/324 MOD 3633 Administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service or to the aeronautical mobile-satellite (R) service.

J/60/460 MOD 3633 §4. Administrations shall not permit public correspondence in the following frequency bands allocated exclusively to the aeronautical mobile service.

2850 - 3155 kHz
4650 - 4750 kHz
5450 - 5480 kHz (Region 2)
5480 - 5730 kHz
6525 - 6765 kHz
8815 - 9040 kHz
10005 - 10100 kHz
11175 - 11400 kHz
13200 - 13360 kHz
15010 - 15100 kHz
17900 - 18030 kHz
21924 - 22000 kHz
23200 - 23350 kHz
117.975 - 136 MHz

USA/24/492
KEN/58/1 NOC 3633
PRG/61/110
SEN/103/56
ALG/89/3
PHL/77/72

CTI/86/48 SUP 3633

F/106/1
ADD 3633A Administrations may, however, permit restricted public correspondence on frequencies for which the area of use is described as "MONDIALE - WORLDWIDE - MUNDIAL" in column 2 of the Frequency Allotment Plan in Article 2 of Appendix 27Aer2, except for two frequencies of the Appendix referred to in Nos. 27/196 (carrier frequency 3 023 kHz) and 27/201 (carrier frequency 5 680 kHz).

F/106/2
ADD 3633B Restrictions on public correspondence under No. 3633A shall be applied:

- by aircraft operators and/or by administrations responsible for land stations in the aeronautical mobile service;
- by the aircraft captain or crew so that they may use the station on board at any time to operate links relating to safety and regularity of flight in accordance with Article 51.

Such restrictions may be extended as far as a total ban on public correspondence communications.

USA/24/493 SUP 3634
PRG/61/111

PHL/77/72 NOC 3634

USA/24/494 SUP 3635
PRG/61/112
PHL/77/73

CEPT-9/16/34 MOD 3635 §6. Governments may, by agreement decide the frequencies to
J/60/461 be used for call and reply in the aeronautical mobile
service and in the aeronautical mobile-satellite service.

WORKING GROUP 4-ARECAPITULATIVE LIST OF PROPOSALS CONCERNING
THE BAND 415 - 535 kHz

ARTICLE 8

Frequency Allocations
kHz

Allocation to Services		
Region 1	Region 2	Region 3
415-435 NOC	415-495 MARITIME MOBILE 470 <u>Aeronautical Radionavigation</u> 469 471 472A	
435-495 NOC		

CAN/25/1
MOD

Reason: To provide for the use of this band by the aeronautical radionavigation service in areas where such use would be compatible with the maritime mobile primary allocation.

kHz

AUS/40/1
#MOD

Allocation to services		
Region 1	Region 2	Region 3
	415 - 495 MARITIME MOBILE 470 <u>/AERONAUTICAL RADIONAVIGATION/</u> 469 471 472A	

USA/24/27
MOD

415-435 AERONAUTICAL RADIONAVIGATION /MARITIME MOBILE/ 470 465	415-495 435 MARITIME MOBILE 470 <u>AERONAUTICAL RADIONAVIGATION</u> 469 471 472A
435-495 MARITIME MOBILE Aeronautical Radionavigation 465 MOD 471 472A <u>470A</u> <u>470B</u>	435-495 MARITIME MOBILE 470 <u>Aeronautical Radionavigation</u> MOD 469 MOD 471 472A <u>470A</u> <u>470B</u>

USA/24/28
MOD

USA/24/29
MOD

415-495 kHz

Reason: To support NDB operations, and subject to the adoption of USA proposal MOD 474.

ARG/5/10
NOC

415 - 495 kHz

Reason: For the date for the reduction of the 500 kHz band, reference should be made to Resolution No. 206.

CEPT-2/9/3
MOD

435-495

MARITIME
MOBILE 470

Aeronautical
Radionavigation

465 ~~471~~ 472A

USA/24/28
MOD

435-495 MARITIME MOBILE Aeronautical Radionavigation 465 MOD 471 472A <u>470A</u> <u>470B</u>	<u>435-495</u> MARITIME MOBILE 470 <u>Aeronautical Radionavigation</u> MOD 469 MOD 471 472A <u>470A</u> <u>470B</u>
------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------

KHz

USA/24/30C
MOD

USA/24/30D
MOD

USA/24/30E
NOC

Region 1	Region 2	Region 3
505-526.5 MARITIME MOBILE 470 /AERONAUTICAL RADIONAVIGATION/ 473 465 MOD 471 MOD 474 475 476	505-510 MARITIME MOBILE 470 MOD 471 510-525 MOBILE 474 AERONAUTICAL RADIONAVIGATION <u>MOD 474</u> 525-535 BROADCASTING 477	505-526.5 MARITIME MOBILE 470 474 /AERONAUTICAL RADIONAVIGATION/ Aeronautical Mobile Land Mobile MOD 471 <u>MOD 474</u>
526.5-535	AERONAUTICAL RADIONAVIGATION	526.5-535

NOC	495-505 MOBILE (distress & calling) 472
CEPT-2/9/4 MOD	505-525.5 MARITIME MOBILE 470 /AERONAUTICAL RADIONAVIGATION/ 473
	465 471 474 475 476

USA/24/30
(MOD) 469 Additional Allocation: In Afghanistan, Australia, China, the overseas French Territories of Region 3, India, Japan and Papua New Guinea, the band ~~415~~ 435-495 kHz is also allocated to the aeronautical radionavigation service on a permitted basis.

Reason: To align No. 469 with the table of frequency allocations.

AUS/40/2
SUP 469

Reason: To permit the use of NDB's in Regions 2 and 3.

USA/24/30A
ADD 470A

The use of the band 435-495 kHz by the aeronautical radionavigation service is limited to non-directional beacons not employing voice transmission.

Reason: To minimize the potential for mutual interference between the aeronautical radionavigation service and the maritime mobile service.

USA/24/30B
ADD 470B

Administrations shall take all practical steps necessary to ensure that aeronautical radionavigation stations in the 435-490 kHz band do not cause interference to coast station reception of ship stations transmitting on frequencies designated for ship stations on a worldwide basis (see No. 4237).

Reason: To provide for the reception of standardized, worldwide transmitting frequencies utilized by ship stations by recognizing that these frequencies are received ashore at coast stations, and in the engineering of aeronautical radionavigation stations, to provide adequate separation.

CEPT-2/9/5 SUP 471

Reasons: Consequential upon the reduction of the guard band around 500 kHz

CAN/25/2
SUP 471

Reason: Consequential to the proposal to reduce the guard band for 500 kHz as presented in MOD 3018.

USA/24/31
NOC

525-535 kHz

Reason: To maintain essential provisions; required and used for non-directional beacons (NBD's).

USA/24/32
MOD 471

The bands 490-495 kHz and 505-510 kHz shall be subject to the provisions of No. 3018 until the entry into force of the reduced guardband on 1 February 1997 in accordance with Resolution ~~206-(Mob-83)~~ A5.

Reason: Consequential to other proposals suppressing RES 206, adding Resolution A5 and establishing 1 February 1997 as the date for introduction of the reduced guardband around 500 kHz.

AUS/40/3

MOD 471 The bands 490-495 kHz and 505-510 kHz shall be subject to the provisions of No. 3018 until ~~the entry into force of the reduced guardband in accordance with Resolution 206-(Mob-83)~~ 1 August 1991 (see Resolution No. 206 (Rev. Mob-87)).

Reason: Resolution No. 206 of the WARC Mob-83 resolved that the 1987 conference decide on the date of entry into force of the definitive guardband for the frequency 500 kHz, and that the date decided upon would not be earlier than 1 January 1990. We are proposing that the 10 kHz guardband be implemented by the WARC Mob-87 with a date of implementation of 1 August 1991.

J/60/1A

MOD 472 The frequency 500 kHz is an international distress and calling frequency for Morse radiotelegraphy. The conditions for its use are prescribed in Article 38 and 60.

Reason: The frequency 500 kHz is used exclusively for Morse radiotelegraphy.

J/60/2

MOD 472A ~~The frequency 490 kHz is used exclusively for distress and safety calls in the shore to ship direction employing digital selective calling techniques. The conditions for the use of the frequency 490 kHz are prescribed in Article 38 N38. Additional conditions concerning the use of this frequency are given in Resolution 206 (Mob-83).~~

Reason: The frequency 490 kHz is used for NBDP of national uses not for DSC.

CEPT-2/9/6
MOD 472A ~~The frequency 490 kHz is used exclusively for distress and safety calls in the shore-to-ship direction employing digital selective calling techniques. The conditions for the use of the frequency 490 kHz are prescribed in Article 38 N38. Additional conditions concerning the use of this frequency are given in Resolution 206 (Mob-83).~~

CAN/25/3
MOD 472A The frequency 490 kHz is used exclusively for distress and safety calls in the shore-to-ship direction employing digital selective calling techniques the transmission by coast stations of meteorological and navigational warnings and urgent information to ships, by means of narrow-band direct-printing telegraphy. The conditions for the use of this frequency are prescribed in Article 38. Additional conditions concerning the use of this frequency are given in Resolution 206 (Mob-83).

Reason: To take account of the lack of requirement of 490 kHz for OSC and to make it available for NAVTEX-like transmissions.

CEPT-2/9/8
MOD 474 The conditions for the use of frequency 518 kHz by the maritime mobile service are prescribed in Article 38 N38 ~~(see Resolution 318 (Mob-83))~~.

Reasons: Consequential upon the transfer of FGMSS provisions from Article 38 to Article N38 and the incorporation of the content of Resolution 318 in an appendix to the Radio Regulations.

USA/24/33
MOD 474 Administrations which operate stations of the aeronautical radionavigation service or of the mobile service are urged to take all practical steps to avoid harmful interference to the frequency 518 kHz used by the maritime mobile service. The conditions for the use of frequency 518 kHz by the maritime mobile service are prescribed in Article N 38 and Article 12, Subsection II-F (see Resolution 318 Mob-83).

Reason: This modification establishes the protection necessary for the effective use of frequency 518 kHz in the new maritime distress system for transmission by coast stations of meteorological and navigational warnings and urgent information to ships. It also carries out the intent of Resolution 318 (which will be suppressed) and other USA proposals for the protection of this frequency (see proposed Article 12, Subsection II-F). Subject to the adoption of USA proposals for the band 415-495 kHz.

J/60/3
MOD 474 The conditions for the use of frequency 518 kHz by the maritime mobile service are prescribed in Articles 38 ~~(see resolution 318 (Mob-83))~~, 14A and N38.

Reason: Consequent to Japanese proposals in the new Articles 14A and N38.

kHz

Allocation to Services			
	Region 1	Region 2	Region 3
NOC	415 - 435 AERONAUTICAL RADIONAVIGATION /MARITIME MOBILE/ 470 465		
TUN/76/3 MOD	435 - 495 MARITIME MOBILE 470 Aeronautical Radionavigation 465 471 <u>472A</u>		

TUN/76/4
SUP 471

Reasons: Consequential upon the reduction of the guardband around 500 kHz.

TUN/76/5
MOD 472A

~~The frequency 490 kHz is used exclusively for distress and safety calls in the shore-to-ship direction employing digital selective calling techniques. The conditions for the use of the frequency 490 kHz are prescribed in Article 38 N38. Additional conditions concerning the use of this frequency are given in Resolution 206 (Mob-83).~~

kHz

Allocation to Services			
	Region 1	Region 2	Region 3
TUN/76/6 MOD	505 - 526.5 MARITIME MOBILE 470 /AERONAUTICAL RADIONAVIGATION/ 473 465 471 474 475 476		

TUN/76/7

SUP 471

Reasons: Consequential upon the reduction of the guardband around 500 kHz.

TUN/76/8

SUP 473

Reasons: No longer necessary since the protection of the maritime mobile service is covered by the procedures given in Article 4 of the Regional Agreement concerning the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1), Geneva, 1985.

kHz
415 — 1 606.5

Allocation to Services		
Region 1	Region 2	Region 3
415 — 435 AERONAUTICAL RADIONAVIGATION / MARITIME MOBILE / 470 465	415 — 495 MARITIME MOBILE 470 469 471 472A <u>472B</u>	
435 — 495 MARITIME MOBILE 470 Aeronautical Radionavigation 465 471 472A		

IND/93/3

MOD

IND/93/4

ADD 472B

In using the band 415 - 495 kHz for the AERO-RN service, administrations are requested to take every possible precaution to ensure that no harmful interference is caused to the frequency 490 kHz which is designated for distress and safety calls in the shore-to-ship direction employing digital selective calling systems (see No. 2968).

Reasons: To emphasize the need to ensure that the aeronautical radionavigation service does not cause any interference to the distress and safety calls on 490 kHz (in the shore-to-ship directions), by DSC.

WORKING GROUP 6-A

Proposal by the Chairman of Working Group 6-A

STRUCTURE OF ARTICLE 59

ARTICLE 59

**Conditions to be Observed in the Maritime Mobile Service
and in the Maritime Mobile-Satellite Service**

Section I. Maritime Mobile Service

A. General

B. Stations aboard ships using Morse telegraphy

- B1. Bands between 415 kHz and 535 kHz
- B2. Bands between 1 605 kHz and 2 850 kHz
- B3. Bands between 4 000 kHz and 27 500 kHz

C. Stations aboard ships using DSC

- C1. Bands between 415 kHz and 535 kHz
- C2. Bands between 1 605 kHz and 2 850 kHz
- C3. Bands between 4 000 kHz and 27 500 kHz

D. Stations aboard ships using NBDP

- D1. Bands between 415 kHz and 535 kHz
- D2. Bands between 1 605 kHz and 2 850 kHz
- D3. Bands between 4 000 kHz and 27 500 kHz

E. Stations aboard ships using radiotelephony

**E1. Stations aboard ships using radiotelephony
in relation to DSC equipment**

- A. Bands between 1 605 kHz and 4 000 kHz
- B. Bands between 4 000 kHz and 27 500 kHz
- C. Bands between 156 MHz and 174 MHz

E2. Stations aboard ships using radiotelephony only

- A. Bands between 1 605 kHz and 4 000 kHz
- B. Bands between 4 000 kHz and 27 500 kHz
- C. Bands between 156 MHz and 174 MHz

Section II. Maritime Mobile-Satellite Service

**Section III. Aircraft Communicating with Stations of the Maritime
Mobile Service and the Maritime Mobile-Satellite Service**

A. General Provisions

B. Provisions relating to the use of frequencies between
156 MHz and 174 MHz

**Section IV. Conditions to be Observed by Stations Aboard Ships
while Temporarily in Ports and Harbours.**

R. SWANSON
Chairman of Working Group 6-A

WORKING GROUP 6-A

COORDINATED STRUCTURE OF ARTICLE 59

SECTION I. MARITIME MOBILE SERVICE

A. General

B. Ship Stations Using Radiotelegraphy

B. Ship Stations Using Morse Radiotelegraphy [33, 60]

B1 Bands between 415 kHz and 535 kHz

B2 Bands between 1605 kHz and 2850 kHz

B3 Bands between 4000 kHz and 27500 kHz

C. Ship Stations Using NBDP and DSC

C. Ship Stations Using DSC [60]

CA. Ship Stations Using NBDP Telegraphy [60]

C1. Bands between 415 kHz and 535 kHz [33]

C2. Bands between 1605 kHz and 4000 kHz [33]

C3. Bands between 4000 kHz and 27500 kHz [33]

D. Ship Stations Using Radiotelephony

D1. Ship Stations Equipped With Radiotelephony Apparatus Used With
Relation to DSC System [60]D2. Ship Stations Equipped With Radiotelephony Apparatus Used Without
Relation to DSC System [60]

D1 Bands between 1605 kHz and 4000 kHz

A) Bands between 1605 kHz and 4000 kHz [60]

B) Bands between 4000 kHz and 27500 kHz [60]

C) Bands between 156 MHz and 174 MHz [60]

D2 Bands between 4000 kHz and 23000 kHz

D3 Bands between 156 MHz and 174 MHz

E. Ship Stations Using DSC techniques [8, 42]

E1. Bands between 415 kHz and 526.5 kHz [8, 42]

E2. Bands between 1605 kHz and 4000 kHz [8, 42]

E3. Bands between 4000 kHz and 27500 kHz [8, 42]

E4. Bands between 156 MHz and 174 MHz [8, 42]

SECTION II. CONDITIONS TO BE OBSERVED BY SHIP EARTH STATIONS

SECTION III. AIRCRAFT COMMUNICATING WITH STATIONS OF THE MARITIME MOBILE SERVICE
AND THE MARITIME MOBILE-SATELLITE SERVICE

A. General Provisions

B. Provisions relating to the Use of Frequencies Between 156 MHz and 174 MHz

Section IV. Conditions to be Observed by Ship Stations and Ship
Earth Stations While Temporarily in Ports and Harbors [24]R. SWANSON
Chairman of Working Group 6-A

WORKING GROUP 4-A

ARTICLE 8

9 300 - 9 500 MHz

(Recapitulative list of proposals)

MHz

Allocation to Services		
Region 1	Region 2	Region 3
USA/24/92 MCD	9 200 - 9 300	RADIOLOCATION
		MARITIME RADIONAVIGATION 772 823
		824

SUP 772 (see proposal USA/24/82)

USA/24/82
 SUP 772 and 774

Reason: Nos. 772 and 774 were predicated upon the use of fixed-frequency radar transponders/racons in the maritime radionavigation service with shipborne radars in the same service. Technical limitations prevent compatibility between these transponders/racons and these radars, and as a result these devices have never come into general use in the maritime service. The need for these provisions no longer exists.

MHz

USA/24/93 MOD	9300-9500	
		RADIONAVIGATION 774 775
		Radiolocation
		<u>775A</u> 825 <u>825A</u>

SUP 774 (see proposal USA/24/82)

ADD 775A (see proposal USA/24/83)

USA/24/83
ADD 775A

In the bands 2900-3100 MHz and 9300-9500 MHz, the response from radar transponders shall not cause interference to ship or aeronautical radars in the radionavigation service or be confused with the response from radar beacons (racons).

Reason: To protect racons used for maritime and aeronautical radionavigation.

USA/24/94
ADD 825A

In the band 9300-9320 MHz in the maritime radionavigation service, the use of shipborne radars other than those existing on 1 January 1976 is not permitted until 1 January 2001.

Reason: No. 774 was predicated upon the use of fixed-frequency radar transponders/racons in the maritime radionavigation service with shipborne radars in the same service. Technical limitations prevent compatibility between these transponders/racons and these radars, and as a result these devices have never come into general use in the maritime service. However, the aircraft weather radars having a racon (9310 MHz) mode and having interference-rejection circuitry operating in only the radar (not racon) mode may experience some interference from ship radars when in the racon mode. The 1 January 2001 date would provide time to allow those radars to have interference-rejection circuitry installed in both modes.

CAN/25/5
MOD

CAN/25/6
MOD

Allocation to Services		
Region 1	Region 2	Region 3
9200-9300	RADIOLOCATION MARITIME RADIONAVIGATION 772 823 824 <u>824A</u>	
9300-9500	RADIONAVIGATION 774-775 Radiolocation 825 <u>824A</u> <u>824B</u>	

CAN/25/7
SUP

774-775

Reason: There is no further operational requirement for these provisions.

CAN/25/8
ADD

824A In the band 9200-9500 MHz, transponders used for search and rescue purposes have priority over other radiolocation devices.

CAN/25/9
ADD

824B The allocation of the band 9300-9500 MHz to the radiolocation service is on a primary basis for transponders used for search and rescue.

Reason: To provide for the use of search and rescue transponders and to ensure that a vital safety function is given adequate status in the Regulations.

Allocation to Services			
Region 1	Region 2	Region 3	
G/33/56 MOD	9300-9500	RADIONAVIGATION 774-775 <u>825A, 825B</u> Radiolocation 825 <u>825C</u>	

Reasons: Consequential modifications arising from SUP 774 and SUP 775 and to ensure the continued interference free operation of airborne weather radar used for search and rescue operations at sea.

G/33/57
ADD 825A In the band 9300-9320 MHz in the maritime radionavigation service the use of shipborne radars other than those existing on 1 January 1976 is not permitted.

Reasons: Consequential from SUP 774.

G/33/58
ADD 825B In the band 9320-9500 MHz in the maritime radionavigation service the use of fixed-frequency radar beacons (racons) on land or at sea is not permitted.

Reasons: Consequential from SUP 775 and would reflect the needs of the maritime radionavigation service where no fixed frequency maritime beacons are to be used, additionally it would also observe the aeronautical radionavigation service's needs.

G/33/59
ADD 825C The use of the band 9300-9500 MHz by maritime radar transponders is authorised for search and rescue operations at sea. Administrations are urged to take all practicable steps to ensure that harmful interference is not caused to airborne weather radars operating in the band 9320-9500 MHz.

Reasons: To make provisions for maritime radar transponders used for search and rescue purposes whilst recognising the need to avoid harmful interference occurring to airborne weather radars.

URS/32/8A
MOD

9 200 - 9 300	RADIOLOCATION
	MARITIME RADIONAVIGATION 772 823
	824

Allocation to Services			
	Region 1	Region 2	Region 3
AUS/40/37 MOD	9200 - 9300	RADIOLOCATION MARITIME RADIONAVIGATION -772- 823 <u>825B</u> 824	
AUS/40/38 MOD	9300-9500	RADIONAVIGATION 774 775 Radiolocation <u>775A</u> 825 <u>825A</u> <u>825B</u>	
AUS/40/39 MOD	9500-9800	RADIOLOCATION RADIONAVIGATION 713 <u>825B</u>	

AUS/40/40
ADD 825A The use of the 9320-9500 MHz band by maritime radar transponders is permitted on condition that harmful interference is not caused to aeronautical airborne weather radars in the 9320-9500 MHz band.

Reason: To protect airborne weather radars.

AUS/40/41
ADD 825B In the band 9200-9800 MHz conventional shipborne pulse radars in the maritime radionavigation service shall operate only in the band 9300-9500 MHz.

Reason: To provide compatibility between racons and ship radars and to provide 200 MHz of bandwidth for maritime radars and beacons in both the 3 GHz and 9 GHz bands.

MHz
9 200 - 9 300

J/60/24
MOD

9200 - 9300	RADIOLOCATION MARITIME RADIONAVIGATION 772 823 824 <u>824A</u>	
-------------	-----------------------------------------------------------------------------	--

J/60/25
ADD 824A The use of the bands 9200 - 9500 MHz by maritime radar transponders is limited to use for transmission of locating signal for GMDSS, except those provided for by No. 772.

MHz
9 300 - 9 500

J/60/26
MOD

Allocation to Services		
Region 1	Region 2	Region 3
9300 - 9500	RADIONAVIGATION Radiolocation 825 824A	774 775

Reason: The use of this bands by the other services will cause hindrances to radionavigation services.

ALG/89/8

The Algerian Administration is opposed to the modification of the provisions of Article 8 of the Radio Regulations other than those relating to the mobile services.

Attention should also be given to the safety aspects of the maritime mobile, maritime mobile-satellite, aeronautical mobile and aeronautical mobile-satellite systems.

Reasons: The Conference may not deal with services other than the mobile services.

SEN/103(Add.1)/20

5.1 Sharing of the band 9 320 - 9 500 MHz between weather radars and radar transponders used for search and rescue purposes

With regard to the use of the band 9 320 - 9 500 MHz by radar transponders, Senegal proposes that the matter be studied further with a view to facilitating search and rescue operations at sea without adversely affecting airborne weather radars.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/15-E
18 September 1987
Original: English

WORKING GROUP 4-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 4-A

In order to assist Working Group 4-A, attached is a consolidated document concerning proposals on Article 8 (Band 2 700 - 3 300 MHz).

J. KARJALAINEN
Chairman of Working Group 4-A

ARTICLE 8

Band 2 700 - 3 300 MHz

Recapitulative summary of the proposals

MHz

	Region 1	Region 2	Region 3
AUS/40/25 MOD	2700 - 2900	AERONAUTICAL RADIONAVIGATION 717 Radiolocation 770 771 <u>775B</u>	
AUS/40/26 MOD	2900 - 3100	RADIONAVIGATION 773 MOD 774 775 Radiolocation -772- <u>775A</u> <u>775B</u>	

USA/24/80 <u>NOC</u>	2700-2900 AERONAUTICAL RADIONAVIGATION 717 Radiolocation 770 771
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Reason: To retain essential provision; extensively
used for navigational aids.

USA/24/81 MOD	2900-3100 RADIONAVIGATION 773 774 775 Radiolocation 772 <u>775A</u>
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MHz
2700-3100

	Region 1	Region 2	Region 3
NOC	2700-2900	AERONAUTICAL Radiolocation 770 771	RADIONAVIGATION 717
G/33/50 MOD	2900-3100	RADIONAVIGATION 773 774 775 Radiolocation 772	

USA/24/82
SUP 772 and 774

Reasons: Nos. 772 and 774 were predicated upon the use of fixed-frequency radar transponders/racons in the maritime radionavigation service with shipborne radars in the same service. Technical limitations prevent compatibility between these transponders/racons and these radars, and as a result these devices have never come into general use in the maritime service. The need for these provisions no longer exists.

AUS/40/27
SUP 772

Reasons: No. 772 was predicated upon the use of fixed-frequency radar transponders/racons in the maritime radionavigation service with shipborne transponders in the same service. Technical limitations prevent compatibility between these transponders/racons and these radars, and as a result these devices have never come into general use in the maritime service. The need for this provision no longer exists.

URS/32/7(Corr.1)
MOD 772

In the bands 2 900 - 3 100 MHz, ~~5-470--5-650 MHz and 9-200--9-300 MHz~~, the use of shipborne transponder systems (SIT) shall be confined to the sub-bands 2 930 - 2 950 MHz, ~~5-470 - 5-480 MHz and 9-280--9-300-MHz~~. The technical characteristics of SIT shipborne transponder systems shall correspond to the CCIR Recommendation.

Reasons: To include in the Radio Regulations the results of CCIR studies which have been incorporated in practical equipment usable in maritime radionavigation.

CAN/25/7
SUP 774-775

Reasons: There is no further operational requirement for these provisions.

G/33/51
SUP 774 and 775

Reasons: The use of the sub-band 2900-2920 MHz for fixed frequency radar beacons by the maritime radionavigation service is no longer required. Consequentially with the suppression of footnotes 774 and 775 new footnotes 825A and 825B are proposed covering the band 9300-9500 MHz.

MHz
4 200-4 400

Region 1	Region 2	Region 3
4 200-4 400		
AERONAUTICAL RADIONAVIGATION 789		
788 790 791		

Whilst not submitting any formal proposal for amendment to the band 4 200-4 400 MHz, a recommendation is annexed to these proposals inviting a future competent conference to examine this band in order to ascertain whether it might be slightly reduced to provide an additional allocation for the land mobile service.

Reasons: To study the possibility of a future allocation for other services.

AUS/40/28
MOD 774 In the bands 2900-2920 MHz and 9300-9320 MHz in the maritime radionavigation service, the use of shipborne radars other than those existing on 1 January 1976 is not permitted until 1 January 2001.

Reasons: No. 774 was predicated upon the use of fixed-frequency radar transponders/racons in the maritime radionavigation service with shipborne radars in the same service. Technical limitations prevent compatibility between these transponders/racons and these radars, and as a result these devices have never come into general use in the maritime service. However, the aircraft weather radars having a racon (9310 MHz) mode and having interference-rejection circuitry operating in only the radar (not racon) mode may experience some interference from ship radars when in the racon mode. The 1 January 2001 date would provide time to allow those radars to have interference-rejection circuitry installed in both modes.

USA/24/83
ADD 775A In the bands 2900-3100 MHz and 9300-9500 MHz, the response from radar transponders shall not cause interference to ship or aeronautical radars in the radionavigation service or be confused with the response from radar beacons (racons).

Reasons: To protect racons used for maritime and aeronautical radionavigation.

AUS/40/29

ADD 775A In the bands 2900-3100 MHz and 9300-9500 MHz, the response from radar transponders shall not cause interference to ship or aeronautical radars in the radionavigation service or be confused with the response from radar beacons (racons).

Reasons: To protect maritime and aeronautical radars from interference and allow continued operation of radar transponders and racons.

AUS/40/30

ADD 775B In the band 2700-3100 MHz, conventional shipborne pulse radars in the maritime radionavigation service shall operate only in the band 2900-3100 MHz.

Reasons: To confine racons and maritime radars to a bandwidth of 200 MHz in the 3 GHz band and to provide compatibility with the 200 MHz of bandwidth allocated in the 9 GHz band for ship and racon operation. (See the SP8 Report, Section 7.40.3).

MHz

AUS/40/31

MOD

Region 1	Region 2	Region 3
3100 - 3300	RADIOLOCATION	
713	-776-	777 778

AUS/40/32

SUP 776

Reasons: To confine racons and maritime radars to a bandwidth of 200 MHz in the 3 GHz band and to provide compatibility with the 200 MHz of bandwidth allocated in the 9 GHz band for ship and racon operation. (See the SP8 Report, Section 7.40.3).

CHL/94/37

NOC

2 700 - 2 900	AERONAUTICAL RADIONAVIGATION 717
	Radiolocation
	770 771

Reasons: This allocation is essential for aeronautical radionavigation and radiolocation services.

MHz

CHL/94/38
MOD

Allocation to Services		
Region 1	Region 2	Region 3
2 900 - 3 100	RADIONAVIGATION 773 774 775 Radiolocation 772	

SUP 772 and 774: USA/24/82

ADD 775A: USA/24/83

WORKING GROUP 6-B

NOTE FROM THE CHAIRMAN OF WORKING GROUP 6-B ON ARTICLE 50

In reply to the request of Committee 4 (Document 123), proposals of administrations concerning Article 50 were considered at the third meeting of Working Group 6-B.

General agreements and discussions are summarized as follows:

1. It is generally acceptable to add "Aeronautical Mobile-Satellite Service" in provisions and the title of Article 50.
2. With respect to the public correspondence, there were two opposite views; one is the view of permitting the public correspondence in the band exclusively allocated to the aeronautical mobile service under certain restrictions, and the other is that the public correspondence should not be allowed in the frequency band allocated exclusively to the aeronautical mobile service.
3. The following modification with square brackets may be a generally agreeable solution.

MOD 3630 § 1. Frequencies in any band allocated to the aeronautical mobile (R) service or the aeronautical mobile-satellite (R) service are reserved for communications related to safety and regularity of flight between any aircraft and those aeronautical stations and aeronautical earth stations primarily concerned with flight along national or international civil air routes [except as provided for in No. 3633 below.]

MOD 3633 [Except in the bands 1 545 - 1 559 MHz and 1 646.5 - 1 660.5 MHz] administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service [or the aeronautical mobile-satellite service.] [When the bands mentioned above are used for public correspondence with aircraft the public correspondence shall accord complete priority of communication to categories 1 to 6 of Article 51.]
4. Decision of deleting or retaining the phrases within square brackets must await the conclusion of considerations in Committee 4 on Article 8.

Y. HIRATA
Chairman of Working Group 6-B

COMMITTEE 4

DISCUSSION PAPER

In an attempt to establish the meaning of the term "minimal impact" used in the agenda for the Conference, it will be evident that Committee 4 and its Working Groups dealing with Article 8 will need one or more general rules. The following are put forward for discussion:

1. The Conference may not remove or renounce the status of any existing allocation to a service not included in the agenda for the Conference.
2. The Conference may not introduce a new allocation which would restrict the future use of a band already allocated to a service which is not included in the agenda for the Conference.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/17-E
18 September 1987
Original: English

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Articles 55 and 56.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

ATTACHMENT

COORDINATED STRUCTURE OF ARTICLE 55

OPERATORS' CERTIFICATES FOR SHIP STATIONS AND SHIP EARTH STATIONS

SECTION II. CATEGORIES OF CERTIFICATES FOR SHIP STATION OPERATORS

- MOD Section II. Categories of Operators' Certificates for Ship Stations and Ship Earth Stations and for Automated Communications [17]
- MOD Section II. Categories of Certificates for Manually Operated Ship Stations [57]
- MOD Section II. Categories of Certificates for Ship Station and Ship Earth Station Operators [25, 59, 70]

SECTION III. CONDITIONS FOR THE ISSUE OF OPERATORS' CERTIFICATES

- MOD Section III. Conditions for the Issue of Certificates for Manually Operated Ship Stations [57]
- ADD G. General and Restricted Certificates for Automated Communications [17]
- ADD G. Certificates for Operators of Equipment Used for Automated Communications [25]
- ADD G. First-Class Radioelectronic Operator's Certificate for Automated Communications in the Maritime Mobile Service [59, 70]
- ADD H. Second-Class Radioelectronic Operator's Certificate for Automated Communications in the Maritime Mobile Service [59, 70]
- ADD I. General Operating Certificate for Automated Communications in the Maritime Mobile Service [59]
- ADD I. General Radiocommunications Operator's Certificate for Automated Communications in the Maritime Mobile Service [70]
- ADD J. Restricted Operating Certificate for Automated Communications in the Maritime Mobile Service [59]
- ADD J. Restricted Radiocommunications Operator's Certificate for Automated Communications in the Maritime Mobile Service [70]

SECTION IV. QUALIFYING SERVICE

- MOD Section IV. Authorization and Qualifying Service [25]
- MOD Section IV. Qualifying Services for Manually Operated Ship Stations [57]
- ADD Section V. Operators' Certificates for Ship Stations and Ship Earth Stations Required to Participate in the GMDSS [24]
- ADD Section V. Operators' Certificates for Automated Ship Station and Ship Earth Station Systems [40 (Add. 1)]
- ADD Section V. Categories of Certificates for Ship Stations and Ship Earth Stations for Automated Communications [57]
- ADD Section VI. Conditions for the Issue of Certificates for Automated Stations [57]

ADD

ARTICLE N55

Operators' Certificates for Ship Stations and Ship Earth Stations for
Automated Communications [30]

Certificates for the Service of Ship Stations and Ship Earth Stations
Which Use the Frequencies and Techniques Prescribed in Chapter NIX [37]

Operators' Certificates for Ship Stations and Ship Earth Stations
on Board Ships Participating in GMDSS Radiocommunications [60]

COORDINATED STRUCTURE OF ARTICLE 56

PERSONNEL OF STATIONS IN THE MARITIME MOBILE SERVICE

MOD Personnel of Stations in the Maritime Mobile Service and
the Maritime Mobile-Satellite Service [17, 57]

SECTION I. PERSONNEL OF COAST STATIONS

MOD Section I. Personnel of Coast Stations and Coast Earth Stations [17]

SECTION II. CLASS AND MINIMUM NUMBER OF OPERATORS FOR STATIONS ON BOARD SHIPS

MOD Section II. Class and Minimum Number of Operators for Stations on
board Ships Using Non-Automated Communications [17]

ADD Section III. Class and Minimum Number of Operators for
Stations on board Ships Using Automated Communications [17, 59, 70]

ADD Section IV. Categories of Ship Stations using the techniques
and frequencies prescribed for automated communications [59, 70]

ADD

ARTICLE N56

Personnel of Stations for Automated Communications
in the Maritime Mobile Service [30]

ADD

ARTICLE N56

Personnel of Coast and Ship Stations Which Use the Frequencies
and Techniques Described in Chapter NIX [37]

ADD

ARTICLE N56

Personnel of Those Stations in the Maritime Mobile Service and the Maritime
Mobile-Satellite Service which participate in GMDSS Radiocommunications [60]

WORKING GROUP 6-BDraft Note from the Chairman of Working Group 6-B

ARTICLE 43 (Rev.)

**Authority of the Person Responsible for the Aircraft Stations
in the Aeronautical Mobile Service and the Aircraft Earth
Stations in the Aeronautical Mobile-Satellite Service**

- 3364 § 1. The service of an aircraft station or aircraft earth station is placed under the supreme authority of the person responsible for the aircraft [or other vehicle carrying the aircraft station or aircraft earth station].
- 3365 § 2. The person holding this authority shall require that each operator comply with these Regulations and that the aircraft station or aircraft earth station for which the operator is responsible is used, at all times, in accordance with these Regulations.
- 3366 § 3. The person responsible, as well as all the persons who may have knowledge of the text or even of the existence of a radiotelegram, or of any information whatever obtained by means of the radiocommunication service, are placed under the obligation of observing and ensuring the secrecy of correspondence.

Y. HIRATA
Chairman of Working Group 6-B

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Addendum 1 to
Document DL/19-E
29 September 1987
English only

WORKING GROUP 4-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 4-A

Attached are graphical representations of the proposals concerning the bands 1 530 - 1 559 MHz and 1 626.5 - 1 660.5 MHz. Only the proposals relating to the modification of the existing allocations are drawn.

J. KARJALAINEN
Chairman of Working Group 4-A

Annex: 1

ANNEX

Band 1 500 - 1 559 MHz

	1530	1544	1545	1559
RR	MARITIME MOBILE-SATELLITE		M S S	AERONAUTICAL MOBILE-SATELLITE (R)
	1530	1544		
CEPT/11 S/75 I/97	+ <u>land mobile-satellite</u>			
	1530	1544	1545	1559
USA/24 MEX/111	+ <u>LAND MOBILE-SATELLITE</u> + <u>AER.MOB.SAT (R+OR)</u>		+ <u>LAND MOBILE-SATELLITE</u> + <u>MARITIME MOB.-SATEL.</u> + <u>AER.MOB.SAT (OR)</u>	
	1530	1544	1548	1559
CAN/25	+ <u>LAND MOBILE-SATELLITE</u> + <u>AER.MOB.SAT (R+OR)</u>		+ <u>LAND MOBILE-SAT.</u> + <u>MARITIME MOB.-SAT</u> + <u>AER.MOB.SAT (OR)</u>	
			1545	1553 1559
J/60			+ <u>AER.MOB.SAT (OR)</u> + <u>AER.MOB.S.(OR)</u> + <u>land mob.sat</u> + <u>LAND MOB.S</u> + <u>maritime mob.sat</u> + <u>MAR.MOB.S</u>	
	1530	1544	1550	1559
AUS/40 ADD	+ <u>LAND MOBILE-SATELLITE</u> + <u>AER.MOB-SAT (R+OR)</u>		+ <u>AER.MOB.S. (OR)</u> + <u>LAND MOB.SAT</u> + <u>MARIT.MOB.SAT</u>	
	1530	1534		1555 1559
IND/93	+ <u>LMSS</u>			+ <u>LMSS</u>

Band 1 626.5 - 1 660.5 MHz

	1626.5	1645.5	1646.5	1660.5			
RR	<table><tr><td>MARITIME MOBILE-SATELLITE</td><td>M S S</td></tr></table>		MARITIME MOBILE-SATELLITE	M S S	<table><tr><td>AERONAUTICAL MOBILE-SATELLITE (R)</td></tr></table>		AERONAUTICAL MOBILE-SATELLITE (R)
MARITIME MOBILE-SATELLITE	M S S						
AERONAUTICAL MOBILE-SATELLITE (R)							
	1626.5	1645.5					
CEPT/11 S/75 I/97	<table><tr><td>+ <u>land mobile-satellite</u></td></tr></table>				+ <u>land mobile-satellite</u>		
+ <u>land mobile-satellite</u>							
	1631.5	1645.5	1646.5	1660.5			
USA/24 MEX/111	<table><tr><td>+ <u>AER.MOB.SAT. (R+OR)</u> + <u>LAND MOBILE-SAT</u></td></tr></table>		+ <u>AER.MOB.SAT. (R+OR)</u> + <u>LAND MOBILE-SAT</u>	<table><tr><td>+ <u>AER.MOB.SAT (OR)</u> + <u>LAND MOBILE-SAT.</u> + <u>MARITIME MOB. -SAT</u></td></tr></table>		+ <u>AER.MOB.SAT (OR)</u> + <u>LAND MOBILE-SAT.</u> + <u>MARITIME MOB. -SAT</u>	
+ <u>AER.MOB.SAT. (R+OR)</u> + <u>LAND MOBILE-SAT</u>							
+ <u>AER.MOB.SAT (OR)</u> + <u>LAND MOBILE-SAT.</u> + <u>MARITIME MOB. -SAT</u>							
	1626.5	1645.5	1649.5	1660.5			
CAN/25	<table><tr><td>+ <u>AER.MOB.SAT (R+OR)</u> + <u>LAND MOBILE-SAT.</u></td></tr></table>		+ <u>AER.MOB.SAT (R+OR)</u> + <u>LAND MOBILE-SAT.</u>	<table><tr><td>+ <u>AER.MOB.SAT (OR)</u> + <u>LAND MOB.SAT</u> + <u>MARIT.MOB.SAT</u></td></tr></table>		+ <u>AER.MOB.SAT (OR)</u> + <u>LAND MOB.SAT</u> + <u>MARIT.MOB.SAT</u>	
+ <u>AER.MOB.SAT (R+OR)</u> + <u>LAND MOBILE-SAT.</u>							
+ <u>AER.MOB.SAT (OR)</u> + <u>LAND MOB.SAT</u> + <u>MARIT.MOB.SAT</u>							
		1646.5	1654.5	1660.5			
J/60	<table><tr><td>+ <u>AER.MOB.SAT (OR)</u> + <u>land mob.sat</u> + <u>maritime mob.sat</u></td><td>+ <u>AER.M.S. (OR)</u> + <u>LMSS</u> + <u>MMSS</u></td></tr></table>				+ <u>AER.MOB.SAT (OR)</u> + <u>land mob.sat</u> + <u>maritime mob.sat</u>	+ <u>AER.M.S. (OR)</u> + <u>LMSS</u> + <u>MMSS</u>	
+ <u>AER.MOB.SAT (OR)</u> + <u>land mob.sat</u> + <u>maritime mob.sat</u>	+ <u>AER.M.S. (OR)</u> + <u>LMSS</u> + <u>MMSS</u>						
	1626.5	1645.5	1651.5	1660.5			
AUS/40 ADD	<table><tr><td>+ <u>AERO.MOB.SAT (R+OR)</u> + <u>LAND MOBILE-SATELLITE</u></td></tr></table>		+ <u>AERO.MOB.SAT (R+OR)</u> + <u>LAND MOBILE-SATELLITE</u>	<table><tr><td>+ <u>AER.MSS (OR)</u> + <u>LMSS</u> + <u>MMSS</u></td></tr></table>		+ <u>AER.MSS (OR)</u> + <u>LMSS</u> + <u>MMSS</u>	
+ <u>AERO.MOB.SAT (R+OR)</u> + <u>LAND MOBILE-SATELLITE</u>							
+ <u>AER.MSS (OR)</u> + <u>LMSS</u> + <u>MMSS</u>							
	1631.5	1635.5	1656.5	1660.5			
IND/93	<table><tr><td>+ LMSS</td></tr></table>		+ LMSS	<table><tr><td>+ LMSS</td></tr></table>		+ LMSS	
+ LMSS							
+ LMSS							

WORKING GROUP 4-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 4-A

In order to assist Working Group 4-A, attached is a consolidated document concerning proposals on Article 8 (Band 1 530 - 1 660.5 MHz).

J. KARJALAINEN
Chairman of Working Group 4-A

MHz
 1 530 — 1 535

IND/93/10
 MOD

Allocation to Services		
Region 1	Region 2	Region 3
⁴ 1 530 — 1 535 ⁴ SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) <u>LAND MOBILE-SATELLITE</u> (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 722 726 <u>726A</u>	⁴ 1 530 — 1 535 ⁴ SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) <u>LAND MOBILE-SATELLITE</u> (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 722 726 <u>726A</u>	
⁴ ¹ 1 530 — 1 535 ⁴ SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 722 726 <u>726A</u>	⁴ 1 530 — 1 535 ⁴ SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 722 726 <u>726A</u>	

IND/93/11
 MOD

CEPT-4/11/1*
 MOD

1 530 - 1 535	1 530 - 1 535
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)
MARITIME MOBILE- SATELLITE (space-to-Earth)	MARITIME MOBILE-SATELLITE (space-to Earth)
<u>Land mobile- satellite (space- to-Earth 726A</u>	<u>Land mobile-satellite (space-to-Earth) 726A</u>
Earth Exploration- Satellite	Earth Exploration-Satellite
Fixed	Fixed
Mobile except aeronautical mobile	Mobile 723
722 726	722 726

USA/24/61
 MOD

1530-1535	1530-1535
SPACE OPERATION (Space-to-Earth)	SPACE OPERATION (Space-to-Earth)
MARITIME MOBILE- SATELLITE (Space-to-Earth)	MARITIME MOBILE-SATELLITE (Space-to-Earth)
<u>MOBILE-SATELLITE (Space-to-Earth) 726A 726B</u>	<u>MOBILE-SATELLITE (Space-to- Earth) 726A 726B</u>
Earth Exploration- Satellite	Earth Exploration-Satellite
Fixed	Fixed
Mobile except aeronautical mobile	Mobile 723
722 MOD 726	722 MOD 726

I/97/11
MOD

1 530 - 1 535	1 530 - 1 535
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)
MARITIME MOBILE-SATELLITE (space-to-Earth)	MARITIME MOBILE-SATELLITE (space-to Earth)
<u>Land mobile-satellite (space-to-Earth 726A</u>	<u>Land mobile-satellite</u> <u>(space-to-Earth) 726A</u>
Earth Exploration-Satellite	Earth Exploration-Satellite
Fixed	Fixed
Mobile except aeronautical mobile	Mobile 723
722 726	722 726

S/75/1
MOD

1 530 - 1 535	1 530 - 1 535
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)
MARITIME MOBILE-SATELLITE (space-to-Earth)	MARITIME MOBILE-SATELLITE (space-to Earth)
<u>Land mobile-satellite (space-to-Earth 726A</u>	<u>Land mobile-satellite</u> <u>(space-to-Earth) 726A</u>
Earth Exploration-Satellite	Earth Exploration-Satellite
Fixed	Fixed
Mobile except aeronautical mobile	Mobile 723
722 726	722 726

MEX/111/1
 MOD

1 530 - 1 535	1 530 - 1 535
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)
MARITIME-MOBILE- SATELLITE- (space-to-Earth)	MARITIME-MOBILE-SATELLITE- (space-to-Earth)
<u>MOBILE-SATELLITE</u> (space-to-Earth) 726A 726B	<u>MOBILE-SATELLITE</u> (space-to-Earth) 726A 726B
Earth Exploration- Satellite	Earth Exploration-Satellite
Fixed	Fixed
Mobile except aeronautical mobile	Mobile 723
722 MOD 726	722 MOD 726

AUS/40/455

MOD

1530-1535	1530-1535
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)
MARITIME-MOBILE- SATELLITE (space-to-Earth)	MARITIME-MOBILE-SATELLITE (space-to-Earth)
<u>MOBILE-SATELLITE</u> (space-to-Earth)	<u>MOBILE-SATELLITE</u> (space-to-Earth)
Earth Exploration- Satellite	Earth Exploration-Satellite (space-to-Earth)
Fixed	Fixed
Mobile except aeronautical mobile	Mobile 723
722 726	722 726

CAN/25/479
MOD

1 530 - 1 535	1 530 - 1 535
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)
MARITIME MOBILE- SATELLITE	MARITIME MOBILE- SATELLITE
<u>MOBILE-SATELLITE</u> (space-to-Earth)	<u>MOBILE-SATELLITE</u> (space-to-Earth)
Earth Exploration- Satellite	Earth Exploration-Satellite
Fixed	Fixed
Mobile except aeronautical mobile	Mobile 723
722 726	722 726

MHz
1 535 — 1 559

Allocation to Services			
Region 1		Region 2	Region 3
IND/93/13 MOD	1 535 — 1 544	MARITIME MOBILE-SATELLITE (space-to-Earth)	
		722 727 <u>726A</u>	
NOC	1 544 — 1 545	MOBILE-SATELLITE (space-to-Earth)	
		722 727 728	
IND/93/14 MOD	1 545 — 1 559 1 555	AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth)	
		722 727 729 730 <u>726A</u>	
IND/93/15 MOD	1 545 ^{1 555} — 1 559	AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth)	
		<u>LAND MOBILE-SATELLITE</u> (<u>space-to-Earth</u>)	
		722 727 729 730 <u>726A</u>	

MOD 1 535 - 1 559 MHz

Reasons: As in IND/93/13 for LMSS allocation.

J/60/17
MOD

1545 - 1559 <u>1553</u>	AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth)
	<u>Mobile-Satellite (space-to-Earth)</u> <u>except aeronautical mobile-satellite</u>
	722 727 729 729A 730
J/60/18 MOD	<u>1553</u> - 1559
	AERONAUTICAL MOBILE-SATELLITE (R) MOBILE-SATELLITE (space-to-Earth)
	722 727 729 730

CAN/25/481
NOC

1 544 - 1 545	MOBILE-SATELLITE (space-to-Earth)
722 727 728	

NOC

1535 - 1544	MARITIME MOBILE-SATELLITE (space-to-Earth)
722 727	

B/57/10
NOC

1544 - 1545	MOBILE-SATELLITE (space-to-Earth)
722 727 728	

USA/24/68
MOD

1545-1559

~~AERONAUTICAL MOBILE-SATELLITE (R)~~
~~(Space-to-Earth)~~

MOBILE-SATELLITE (Space-to-Earth)

722 727 729 730 730A

B/57/11
MOD

1545 - 1559	AERONAUTICAL MOBILE-SATELLITE(R)
(space-to-Earth)	
722 727 729 730 <u>730A</u>	

Reasons: 1) existing allocation for the mobile-satellite service limited to distress and safety operations shall be retained;

2) to make provision for public correspondence with aircraft in the aeronautical mobile-satellite service frequency band, while protecting the interests of the aeronautical community.

CAN/25/482
MOD

1545 - ~~1 559~~ 1 548

AERONAUTICAL MOBILE-SATELLITE (R)
(space-to-Earth)

722 727 729 729A 730

CAN/25/483
MOD

1 548 - 1 559

~~AERONAUTICAL MOBILE-SATELLITE (R)~~
MOBILE-SATELLITE (space-to-Earth)

722 727 ~~729~~ 729A 730

S/75/2
MOD

1 535 - 1 544

MARITIME MOBILE-SATELLITE (space-to-Earth)

Land mobile-satellite
(space-to-Earth) 726A

722 727

CEPT-4/11/2
MOD

1 535 - 1 544

MARITIME MOBILE-SATELLITE (space-to-Earth)

Land mobile-satellite
(space-to-Earth) 726A

722 727

NOC

1 544 - 1 545

MOBILE-SATELLITE (space to-Earth)

722 727 728

NOC

1 545 - 1 559

AERONAUTICAL MOBILE-SATELLITE (R)
(space-to-Earth)

722 727 729 730

USA/24/62 MOD	1535-1544 MARITIME-MOBILE-SATELLITE-(Space-to-Earth) <u>MOBILE-SATELLITE (Space-to-Earth)</u> 722 <u>726A</u> <u>726B</u> 727
CAN/25/480 MOD	1 535 - 1 544 MARITIME-MOBILE-SATELLITE <u>MOBILE-SATELLITE (space-to-Earth)</u> 722 727
USA/24/63 MOD	1544-1545 MOBILE-SATELLITE (space-to-Earth) 722 727 MOD 728
AUS/40/456 MOD	1535-1544 MARITIME-MOBILE-SATELLITE-(space-to-Earth) <u>MOBILE-SATELLITE (space-to-Earth)</u> 722 727
AUS/40/457 MOD	1544-1545 MOBILE-SATELLITE (space-to-Earth) 722 727 728 <u>ADD 728A</u>
AUS/40/458 MOD	1545 - 1559 <u>1550</u> AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth) 722 727 729 730
AUS/40/459 MOD	<u>1550-1559</u> AERONAUTICAL-MOBILE-SATELLITE-(R) (space-to-Earth) <u>MOBILE-SATELLITE (space-to-Earth)</u> 722 727 729 730 <u>ADD 730A</u>
CHL/94/28 NOC	1 535 - 1 544 MARITIME MOBILE-SATELLITE (space-to-Earth) 722 727

Reasons: This allocation is essential for meeting the present and future requirements of the maritime mobile-satellite service.

CHL/94/29
MOD

1 544 - 1 545 MOBILE-SATELLITE (space-to-Earth)
722 727 728

CHL/94/30
MOD 728: USA/24/67

CHL/94/31
MOD

1 545 - 1 559 AERONAUTICAL MOBILE-SATELLITE (R)
(space-to-Earth)
722 727 729 730 729A

MEX/111/2
MOD

1 535 - 1 544

~~MARITIME-MOBILE-SATELLITE (space-to-Earth)~~
MOBILE-SATELLITE (space-to-Earth)
722 726A 726B 727

MEX/111/3
MOD

1 544 - 1 545

MOBILE-SATELLITE (space-to-Earth)
722 727 MOD 728

I/97/12
MOD

1 535 - 1 544 MARITIME MOBILE-SATELLITE (space-to-Earth)

Land mobile-satellite
(space-to-Earth) 726A
722 727

MEX/111/8
MOD

1 545 - 1 559

~~AERONAUTICAL-MOBILE-SATELLITE (R)~~
~~(space-to-Earth)~~
MOBILE-SATELLITE (space-to-Earth)
722 727 729 730 730A

MHz
1 559 — 1 626.5

IND/93/16
MOD

Allocation to Services		
Region 1	Region 2	Region 3
1 610 — 1 626.5	AERONAUTICAL RADIONAVIGATION <u>RADIODETERMINATION SATELLITE SERVICE</u> (Earth-to-space) 722 727 730 732 733 734	

Reasons: The need for frequency allocations to the radiodetermination satellite service is well-recognized. In view of the growing importance of this service for providing reliable information about the position of a variety of users on land, at sea, and in air, it is necessary to provide appropriate allocations to this vital service. It is also necessary to have the allocations for radiodetermination satellite service on a world-wide basis as this would facilitate the development and deployment of mobile equipment on a larger scale and thus contribute to enhance safety of life at sea, in air, and on land.

NOC

MEX/111/10
MOD

1 559 - 1 610	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) 722 727 730 731
1 610 - 1 626.5	AERONAUTICAL RADIONAVIGATION <u>RADIODETERMINATION-SATELLITE (Earth-to-space)</u> 722 727 730 732 733 734

Reasons: To meet the demand for position information provided by the radiodetermination-satellite service.

AUS/40/462

MOD

1610-1626.5	AERONAUTICAL RADIONAVIGATION <u>RADIODETERMINATION-SATELLITE (Earth-to-space)</u> 722 727 730 732 733 734
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PHL/77/11
MOD

1 610 - 1 626.5	AERONAUTICAL RADIONAVIGATION 722 727 730 732 733 <u>733A</u> 734
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CEPT-4/11/3
MOD

1 559 - 1 610 AERONAUTICAL RADIONAVIGATION

RADIONAVIGATION-SATELLITE
(space-to-Earth)

722 727 730 731 733A

CEPT-4/11/4
MOD

1 610 - 1 626.5 AERONAUTICAL RADIONAVIGATION

722 727 730 732 733 733A 734

USA/24/71
MOD

1610-1626.5

AERONAUTICAL RADIONAVIGATION
RADIODETERMINATION-SATELLITE (Earth-to-space)

722 727 730 732 733 734

Reasons: To meet the demand for timely, reliable and inexpensive position information provided by the radiodetermination-satellite service. Such information can greatly enhance the efficiency of trucking, railroad and bussing industries, as well as the safety of boaters, motorists, aviators and outdoorsmen.

I/97/16
MOD

1 610 - 1 626.5 AERONAUTICAL RADIONAVIGATION

722 727 730 732 732A 733 734

USA/24/70
NOC

1559-1610

AERONAUTICAL RADIONAVIGATION
RADIONAVIGATION-SATELLITE (Space-to-Earth)

722 727 730 731

Reasons: Essential required allocation; used for collision avoidance and for radio altimeters.

MHz
1 626.5 — 1 660.5

		Allocation to Services		
		Region 1	Region 2	Region 3
IND/93/17	MOD	^{1 631.5} 1 626.5 — 1 645.5	MARITIME MOBILE-SATELLITE (Earth-to-space)	
			722 727 730 <u>726A</u>	
IND/93/18	MOD	^{1 631.5} ^{1 635.5} 1 626.5 — 1 645.5	MARITIME MOBILE-SATELLITE (Earth-to-space)	
			<u>LAND MOBILE-SATELLITE (Earth-to-space)</u>	
			722 727 730 <u>726A</u>	
IND/93/19	NOC	1 626.5 — 1 645.5 1 635.5	MARITIME MOBILE-SATELLITE (Earth-to-space)	
		722 727 730 <u>726A</u>		
		1 645.5 — 1 646.5		
		MOBILE-SATELLITE (Earth-to-space)		
			722 728	
IND/93/20	MOD	^{1 656.5} 1 646.5 — 1 660	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space)	
			722 727 730 735 726A	
IND/93/21	MOD	1 646.5 — 1 660 1 656.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space)	
			<u>LAND MOBILE-SATELLITE (Earth-to-space)</u>	
			722 727 730 735 <u>726A</u>	
IND/93/22	MOD	1 660 — 1 660.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space)	
			RADIO ASTRONOMY	
			<u>LAND MOBILE-SATELLITE (Earth-to-space)</u>	
			722 735 736 <u>726A</u>	

MOD 1 626.5 - 1 660.5 MHz

Reasons: As in IND/93/13 for LMSS allocation.

$$1\ 626.5 - 1\ 645.5$$

Land mobile-satellite (Earth-to-space) 726A

722 727 730

1626.5-1645r5 1631.5

MARITIME MOBILE-SATELLITE (Earth-to-Space)

722 727 730

1631.5-1645.5

~~MARITIME MOBILE SATELLITE - (Earth-to-Space)~~

MOBILE-SATELLITE (Earth-to-Space)

722 726A 726B 727 730

ADD 726A

(see proposal USA/24/65).

ADD 726B

(see proposal USA/24/66)

1 626.5 - 1 645.5

~~MARITIME MOBILE-SATELLITE~~
MOBILE-SATELLITE (Earth-to-space)

722 727 730

1645.5-1646.5

MOBILE-SATELLITE (Earth-to-space)

722 MOD 728

1 645.5 - 1 646.5

MOBILE-SATELLITE (Earth-to-space)

722 728

B/57/13
NOC

1645.5 - 1646.5	MOBILE-SATELLITE (Earth-to-space) 722 728
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USA/24/75
MOD

1646.5-1660

~~AERONAUTICAL MOBILE-SATELLITE (R)~~
~~(Earth-to-Space)~~

MOBILE-SATELLITE (Earth-to-Space)

722 727 730 730A 735

CAN/25/486
MOD

1 646.5 - ~~1 660~~
1 649.5

AERONAUTICAL MOBILE-SATELLITE (R)
(Earth-to-space)

722 727 729A 730 735

CAN/25/487
MOD

1 649.5 - 1 660

~~AERONAUTICAL MOBILE-SATELLITE (R)~~
~~(Earth-to-Space)~~

MOBILE-SATELLITE (Earth-to-space)

722 727 729A 730 ~~735~~

B/57/14
MOD

1646.5 - 1660

AERONAUTICAL MOBILE-SATELLITE (R)
(Earth-to-Space)

722 727 730 730A 735

J/60/20
MOD

1646.5 -
~~1660~~ 1654.5

AERONAUTICAL MOBILE-SATELLITE (R)
(Earth-to-space)

Mobile-Satellite (space-to-Earth)
except aeronautical mobile-satellite

722 727 729 729A 730 735

J/60/21
MOD

1654.5 - 1660

~~AERONAUTICAL MOBILE-SATELLITE (R)~~
MOBILE-SATELLITE
(Earth-to-space)

722 727 730 735

CAN/25/488
MOD

1 660 - 1 660.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-Space)
	RADIO ASTRONOMY
	<u>MOBILE-SATELLITE</u> (Earth-to-space)
	722 <u>729A</u> 735 736

Reasons: To broaden the MMSS allocation and a portion of the existing AMSS allocation to MSS, thus permitting the introduction of multipurpose satellite systems in this frequency spectrum, providing all or a part of the air, maritime or land elements. A portion of spectrum remains exclusively for AMSS in order to maintain the integrity of aviation safety services.

B/57/14A
MOD

1660 - 1660.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space)
	RADIO ASTRONOMY
	722 <u>730A</u> 735 736

Reasons: Same as 1) and 2) above.

J/60/22
MOD

1660 - 1660.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space)
	RADIO ASTRONOMY
	722 735 736

Reasons: To provide allocations for the mobile-satellite service while maintaining the provision of frequency bands for real requirements in the aeronautical mobile-satellite service and to provide the flexibility of use of frequencies in these bands.

CHL/94/34
MOD

1 645.5 - 1 646.5	MOBILE-SATELLITE (Earth-to-space)
	722 728

CHL/94/35
MOD 728: USA/24/67

CHL/94/36
MOD

1 646.5 - 1 660 AERONAUTICAL MOBILE-SATELLITE (R)
(Earth-to-space)
722 727 730 735 729A

Reasons: See MOD 729A in the band 1 545 - 1 559 MHz.

MEX/111/11
MOD

1 626.5 - ~~1 645.5~~ 1 631.5
MARITIME MOBILE-SATELLITE (Earth-to-space)
722 727 730

MEX/111/12
MOD

1 631.5 - 1 645.5
~~MARITIME MOBILE-SATELLITE (Earth-to-space)~~
MOBILE-SATELLITE (Earth-to-space)
722 726A 726B 727 730

Reasons: To provide an allocation for the mobile-satellite service in the band 1 626.5 - 1 645.5 MHz and to ensure the flexibility to stimulate the developing requirements for this service while providing protection for safety and distress communications in the maritime mobile-satellite service. Also to maintain the current status of the maritime mobile-satellite service during the transitional period.

MEX/111/13
MOD

1 645.5 - 1 646.5
MOBILE-SATELLITE (Earth-to-space)
722 MOD 728

MEX/111/14
MOD

1 646.5 - 1 660
~~AERONAUTICAL MOBILE-SATELLITE (R)~~
~~(Earth-to-space)~~
MOBILE-SATELLITE (Earth-to-space)
722 727 730 730A 735

MEX/111/15
MOD

1 660 - 1 660.5
~~AERONAUTICAL MOBILE-SATELLITE (R)~~
~~(Earth-to-space)~~
RADIOASTRONOMY
MOBILE-SATELLITE
(Earth-to-space)
722 730A 736

Reasons: To provide an allocation for the mobile-satellite service while maintaining the flexibility to provide for developing requirements in the aeronautical mobile-satellite (R) service.

AUS/40/463	MOD	1626.5-1645.5 MARITIME-MOBILE-SATELLITE-{Earth-to-space} <u>MOBILE-SATELLITE (Earth-to-space)</u> 722 727 730
AUS/40/464	MOD	1645.5-1646.5 MOBILE-SATELLITE (Earth-to-space) 722 728 <u>ADD 728A</u>
AUS/40/465	MOD	1646.5 - 1660 <u>1651.5</u> AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) 722 727 730 735
AUS/40/466	MOD	<u>1651.5</u> - 1660 AERONAUTICAL-MOBILE-SATELLITE-{R} {Earth-to-space} <u>MOBILE-SATELLITE (Earth-to-space)</u> 722 727 730 <u>ADD 730A</u> 735
AUS/40/467	MOD	1660-1660.5 AERONAUTICAL-MOBILE-SATELLITE-{R} {Earth-to-space} <u>MOBILE-SATELLITE (Earth-to-space)</u> RADIO ASTRONOMY 722 <u>ADD 730A</u> 735 736

Reasons: (1 530 - 1 660.5 MHz)

1. To provide an allocation to the land mobile-satellite service and to cater for the future development of general mobile-satellite systems, while ensuring that adequate spectrum is available for dedicated aeronautical mobile-satellite (R) systems.

2. To allow transmissions from satellite-EPIRBs to be relayed from low-orbiting satellites to geostationary satellites, thus reducing the delay-time in reception of satellite-EPIRB distress alert signals.

S/75/3	MOD	1 626.5 - 1 645.5 MARITIME MOBILE-SATELLITE (Earth-to-space) <u>Land mobile-satellite (Earth-to-space) 726A</u> 722 727 730
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I/86/8
NOC

1 646.5 - 1 660	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space)
722 727 730 735	

Reasons: These allocations to the aeronautical mobile-satellite (R) service need to be maintained since ICAO is studying new air navigation systems with a view to the year 2000.

CHL/94/33
NOC

1 626.5 - 1 645.5	MARITIME MOBILE-SATELLITE (Earth-to-space)
722 727 730	

Reasons: This allocation is essential for meeting the present and future requirements of the maritime mobile-satellite service.

I/97/13
MOD

1 626.5 - 1 645.5	MARITIME MOBILE-SATELLITE (Earth-to-space)
	<u>Land mobile-satellite (Earth-to-space) 726A</u>
722 727 730	

Reasons: to provide an allocation to the land mobile-satellite service

ALG/89/8

The Algerian Administration is opposed to the modification of the provisions of Article 8 of the Radio Regulations other than those relating to the mobile services.

Attention should also be given to the safety aspects of the maritime mobile, maritime mobile-satellite, aeronautical mobile and aeronautical mobile-satellite systems.

Reasons: The Conference may not deal with services other than the mobile services.

USA/24/64
MOD 726

The allocation to the ~~maritime~~ mobile-satellite service in the band 1530-1535 MHz shall be effective from 1 January 1990. Up to that date the allocation to the fixed service shall be on a primary basis in Regions 1 and 3.

MEX/111/4

MOD 726

The allocation to the maritime mobile-satellite service in the band 1 530 - 1 535 MHz shall be effective from 1 January 1990. Up to that date the allocation to the fixed service shall be on a primary basis in Regions 1 and 3.

MEX/111/5

ADD 726A

The maritime mobile-satellite service requirements for safety and distress communications shall have priority access with real-time preemptive capability in the mobile-satellite service. Systems not interoperable with ship earth stations participating in the GMDSS shall operate on a secondary basis. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services (see Nos. 347, 348, ADD N 3195AL, 3651 and 4441).

USA/24/65

ADD 726A

The maritime mobile-satellite service requirements for safety and distress communications shall have priority access with real-time preemptive capability in the mobile-satellite service. Systems not interoperable with ship earth stations participating in the GMDSS shall operate on a secondary basis. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services (see Nos. 347, 348, ADD N 3195AL, 3651 and 4441).

CEPT-4/11/6

ADD 726A

The use of the bands 1 530 - 1 544 MHz and 1 626.5 - 1 645.5 MHz by the land mobile-satellite service is limited to non-speech, low bit-rate data transmissions.

Reasons: To introduce provisions for the land mobile-satellite service and to ensure that the maritime mobile-satellite service is not disadvantaged by the introduction of the land mobile-satellite service.

I/97/14

ADD 726A

The use of the bands 1 530 - 1 544 MHz and 1 626.5 - 1 645.5 MHz by the land mobile-satellite service is limited to non-speech, low bit-rate data transmissions.

Reasons: To avoid disadvantages to the maritime mobile-satellite service due to the introduction of the land mobile-satellite service.

IND/93/12

ADD 726A

In the bands 1 530 - 1 544 MHz, 1 545 - 1 559 MHz, 1 626.5 - 1 645.5 MHz and 1 646.5 - 1 660.5 MHz, the operation of feeder links for any service is prohibited.

Reasons: According to No. 27 of the Radio Regulations, the mobile-satellite service may also include feeder links necessary for its operation. However, No. 22 of the Radio Regulations provides that the fixed-satellite service may also include feeder links for other space radiocommunication services. In view of the limited bandwidth available for mobile-satellite services in the L-band, it would be inappropriate and undesirable to employ this spectrum for feeder links.

S/75/4

ADD 726A

The use of the bands 1 530 - 1 544 MHz and 1 626.5 - 1 645.5 MHz by the land mobile-satellite service is limited to non-speech, low bit-rate data transmissions.

Reasons: To introduce provisions for the land mobile-satellite service and to ensure that the maritime mobile-satellite service is not disadvantaged by the introduction of the land mobile-satellite service.

USA/24/66

ADD 726B

In the bands 1530-1535 MHz, 1535-1544 MHz and 1631.5-1645.5 MHz, the maritime mobile-satellite service shall be the only primary mobile-satellite service until 1 January 1997.

Reasons: To provide an allocation for the mobile-satellite service and to ensure the flexibility to stimulate the developing requirements for this service while providing protection for safety and distress communications in the maritime mobile-satellite service. Also to maintain the current status of the maritime mobile-satellite service during the transitional period.

MEX/111/6

ADD 726B

In the bands 1 530 - 1 535 MHz, 1 535 - 1 544 MHz and 1 631.5 - 1 645.5 MHz, the maritime mobile-satellite service shall be the only primary mobile-satellite service until 1 January 1997.

Reasons: To provide an allocation for the mobile-satellite service and to ensure the flexibility to stimulate the developing requirements for this service while providing protection for safety and distress communications in the maritime mobile-satellite service. Also to maintain the current status of the maritime mobile-satellite service during the transitional period.

PHL/77/10

MOD 728

The use of the bands 1 544 - 1 545 MHz (space-to-Earth) and 1 645.5 - 1 646.5 MHz (Earth-to-space) by the mobile-satellite service is limited to distress and safety operations. These bands may also be used for inter-satellite links in distress and safety operations.

Reasons: To ensure the successful reception of satellite EPIRB signals.

ARG/5/14

MOD 728

The use of the bands 1 544 - 1 545 MHz (space-to-Earth) and 1 645.5 - 1 646.5 MHz (Earth-to-space) by the mobile-satellite service is limited to distress and safety operations. These bands may also be used for inter-satellite links in distress and safety operations.

Reasons: To permit and facilitate satellite reception of EPIRBs.

USA/24/67

MOD 728

The use of the bands 1544-1545 MHz (space-to-Earth) and 1645.5-1646.5 MHz (Earth-to-space) by the mobile-satellite service is limited to distress and safety operations. These bands may also be used for inter-satellite links for relay of distress and safety operations.

Reasons: To ensure the successful reception of satellite EPIRB signals.

MEX/111/7

MOD 728

The use of the bands 1 544 - 1 545 MHz (space-to-Earth) and 1 645.5 - 1 646.5 MHz (Earth-to-space) by the mobile-satellite service is limited to distress and safety operations. These bands may also be used for intersatellite links for relay of distress and safety operations.

Reasons: To ensure the successful reception of satellite EPIRB signals.

AUS/40/460

ADD 728A

The bands 1544 - 1545 MHz and 1645.5 - 1646.5 MHz may also be used for inter-satellite links for relay of distress and safety operations.

S/75/5

MOD 729

Transmissions in the bands 1 545 - 1 559 MHz from terrestrial aeronautical stations directly to aircraft stations, ~~or between aircraft stations, in the aeronautical mobile (R)-service~~ are also authorized when such transmissions are used to extend or supplement the satellite ~~to-aircraft-links~~ network.

Reasons: To maintain the possible use of terrestrial aeronautical stations by aeronautical systems in these bands but removing the means to provide direct links between mobile stations.

CAN/25/483A

MOD 729

Transmissions in the band 1 545 - ~~1-559~~ 1 548 MHz from terrestrial aeronautical stations directly to aircraft stations, or between aircraft stations, in the aeronautical mobile (R) service are also authorized when such transmissions are used to extend or supplement the satellite-to-aircraft links.

CEPT-4/11/7

MOD 729

Transmissions in the bands 1 545 - 1 559 MHz from terrestrial aeronautical stations directly to aircraft stations, ~~or between aircraft stations, in the aeronautical mobile (R)-service~~ are also authorized when such transmissions are used to extend or supplement the satellite ~~to-aircraft-links~~ network.

Reasons: To maintain the possible use of terrestrial aeronautical stations by aeronautical systems in these bands but removing the means to provide direct links between mobile stations.

CAN/25/489

ADD 729A

Aeronautical mobile-satellite (R) distress and safety (including Air Traffic Control) operations would normally be accommodated in the 1 545 - 1 548 MHz and 1 646.5 - 1 649.5 MHz bands. If required by operational conditions outside of these bands such operations shall have priority access, with a real time pre-emptive capability, in the 1 548 - 1 559 MHz and 1 649.5 - 1 660.5 MHz frequency bands.

Reasons: To ensure the availability of frequency spectrum to meet aviation safety requirements.

J/60/19
ADD 729A The service of communication related to safety and regularity of flight between any aircraft and those aeronautical earth stations primarily concerned with flight along national and international civil air routes shall have the priority, in the aeronautical mobile-satellite service.

CHL/94/32
ADD 729A In the bands 1 545 - 1 559 MHz and 1 646.5 - 1 600 MHz, administrations may permit public correspondence with aircraft but on a secondary basis after communication concerning the safety and regularity of flights, which shall have absolute priority over public correspondence with aircraft.

Reasons: To provide for public correspondence with aircraft while maintaining essential provisions and extending them to the aeronautical mobile-satellite (R) service.

AUS/40/461
ADD 730A The use of the bands 1550-1559 MHz and 1651.5-1660.5 MHz by the aeronautical mobile-satellite (R) service for aeronautical safety related purposes shall have priority over other uses by the mobile-satellite service.

MEX/111/9
ADD 730A The aeronautical mobile-satellite (R) service shall have priority access with real-time preemptive capability for communications in the mobile-satellite service. Systems not interoperable with the aeronautical mobile-satellite (R) service shall operate on a secondary basis. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services (see Nos. 347, 348, ADD N 3195LA, 3651 and 4441).

USA/24/69
ADD 730A The aeronautical mobile-satellite (R) service shall have priority access with real-time preemptive capability for communications in the mobile-satellite service. Systems not interoperable with the aeronautical mobile-satellite (R) service shall operate on a secondary basis. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services (see Nos. 347, 348, ADD N 3195LA, 3651 and 4441).

Reasons: To provide an allocation for the mobile-satellite service while maintaining the flexibility to provide for developing requirements in the aeronautical mobile-satellite (R) service.

B/57/12
ADD 730A The bands 1545 - 1559 MHz and 1646.5 - 1660.5 MHz can be used for public correspondence with aircraft provided that absolute priority is given to communications related to safety and regularity of flight (See Article 51).

Reason: Same as 2) above.

I/97/17

ADD 732A

The band 1 610 - 1 626.5 MHz is also allocated to the radiodetermination-satellite service in the Earth-to-space direction on a primary basis.

Reasons: To provide for frequency allocations to the radiodetermination-satellite service in order to meet the demand for timely and inexpensive position information.

CEPT-4/11/8

MOD 733

The bands 1 610 - 1626.5 MHz, ~~5 000~~ 5 100 - 5 250 MHz and 15.4 - 15.7 GHz are also allocated to the aeronautical mobile-satellite (R) service on a primary basis. Such use is subject to agreement obtained under the procedure set forth in Article 14.

Reasons: Consequential from MOD 797 in Document 10.

G/33/53A

MOD

733

(see Document 11)

S/75/6

MOD 733

The bands 1 610 - 1626.5 MHz, ~~5 000~~ 5 150 - 5 250 MHz and 15.4 - 15.7 GHz are also allocated to the aeronautical mobile-satellite (R) service on a primary basis. Such use is subject to agreement obtained under the procedure set forth in Article 14.

Reasons: Consequential from MOD 797 in Document 10.

PHL/77/12

ADD 733A

The band 1 610 - 1 625.5 MHz is also allocated to the radiodetermination-satellite service in the Earth-to-space direction.

Reasons: To enhance the reliability of this band in the position information determination provided by the radiodetermination-satellite service.

CEPT-4/11/9

ADD 733A

The bands 1 559 - 1610 MHz and 1 610 - 1 626.5 MHz may also be used by the aeronautical mobile service where such use is intended to supplement or extend the aeronautical mobile-satellite service in the bands 1 545 - 1 559 MHz, 1 610 - 1 626.5 MHz or 1 646.5 - 1 660.5 MHz.

Reasons: To provide additional possibilities for developing terrestrial networks in the aeronautical mobile service.

ARG/5/15

ADD 733A

The band 1 610 - 1 626.5 MHz is also allocated to the radiodetermination-satellite service in the Earth-to-space direction.

Reason: To enable this band to be used by the radiodetermination-satellite service.

CEPT-4/11/10
MOD 735

Transmissions in the band 1 646.5 - 1 660.5 MHz from aircraft stations ~~in the aeronautical mobile (R) service~~ directly to terrestrial aeronautical stations, ~~or between aircraft stations~~, are also authorized when such transmissions are used to extend or supplement the ~~aircraft to satellite links~~ network.

Reasons: As for MOD 729 above.

CAN/25/489A
MOD 735

Transmissions in the band 1 646.5 - ~~1 660.5~~ 1 649.5 MHz from aircraft stations in the aeronautical mobile (R) service directly to terrestrial aeronautical stations, or between aircraft stations, are also authorized when such transmissions are used to extend or supplement the aircraft-to-satellite links.

S/75/7
MOD 735

Transmissions in the band 1 646.5 - 1 660.5 MHz from aircraft stations ~~in the aeronautical mobile (R) service~~ directly to terrestrial aeronautical stations, ~~or between aircraft stations~~, are also authorized when such transmissions are used to extend or supplement the ~~aircraft to satellite links~~ network.

Reasons: As for MOD 729 above.

2.2 Public correspondence (item 6.2)

TUN/76/14 : The Tunisian Administration shares the opinion expressed by ICAO and agrees with the idea of using the bands 1 545 - 1 559 MHz and 1 646.5 - 1 660.5 MHz on a primary basis for air flight safety and on a secondary basis for public correspondence under the supervision of the administrations concerned.

The Administration of Sudan hereby proposes that the World Administrative Radio Conference for Mobile Services make the following world-wide allocations on a primary basis for the radiodetermination satellite service.

SDN/90/1
MOD

1 610 - 1 626.5 MHz, presently allocated to the aeronautical radionavigation service, to include radiodetermination satellite service (earth-to-space) on primary basis.

Reasons: There is a world-wide demand for the inexpensive, reliable and timely position information and ancillary communications links with mobile units which the radiodetermination satellite service provides. Such information can enhance the efficiency and safety of all modes of transportation. For geographic conditions such as those found in Africa, the radiodetermination satellite service will provide a hitherto unavailable link between mobile units and central headquarters. The 1 610 - 1 626.5 MHz will provide the necessary link from the mobile unit to the satellite.

IND/93/

MOD 1 530 - 1 535 MHz

Reasons: There are growing requirements for the land mobile-satellite service. These requirements can be best met by providing a service operating in the same frequency bands where the other two mobile-satellite services operate, namely, the "L" band. As there is no allocation for LMSS in this band, an additional allocation to this service on a primary basis in a small bandwidth in the "L" band would facilitate the development of the service without undue constraints. As the allocation is on co-equal basis and limited to less than 30% of the spectrum allocated to AMSS (R) & MMSS, this would have an insignificant effect on these services.

SEN/103(Add.1)/21

5.2 Allocation of the bands 1 545 - 1 559 MHz and
1 646.5 - 1 660.5 MHz to the aeronautical mobile-satellite (R) -
service (AMS)

Having regard to changing requirements in these bands, Senegal proposes that the bands 1 545 - 1 559 and 1 646.6 - 1 660.5 MHz should continue to be allocated exclusively to the aeronautical mobile-satellite (R) service, pending further technical studies.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/20-E
21 September 1987
Original: English

WORKING GROUP 6-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-B

In order to assist Working Group 6-B, attached is a consolidated document concerning proposals on Article 44.

Y. HIRATA
Chairman of Working Group 6-B

Attachment: 1

ATTACHMENT

ARTICLE 44

Section I. General Provisions

ARG/5/33
AUS/40/357
CEPT-9/16/3
PRG/61/37 SUP 3392
USA/24/416
PHL/77/26
CAN/25/288
CTI/86/18

ARG/5/34
MOD 3393

The service of every aircraft radiotelephone station and aircraft earth station shall be controlled by an operator holding a certificate issued or recognized by the governments to which ~~the station is subject~~ these stations belong. Provided the station is so controlled, other persons besides the holder of the certificate may use the radiotelephone equipment.

CAN/25/289
MOD 3393

The service of every aircraft radiotelephone station and every aircraft earth station shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is subject. Provided the station is so controlled, other persons besides the holder of the certificate may use the radiotelephone equipment.

CEPT-9/16/4
USA/24/417
AUS/40/358
PRG/61/38
CTI/86/19
MOD 3393

(2) The service of every aircraft ~~radiotelephone~~ station and every aircraft earth station shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is subject. Provided the station is so controlled, other persons besides the holder of the certificate may use the radiotelephone equipment.

PHL/77/27
MOD 3393

The service of every aircraft ~~radiotelephone~~ station and every aircraft earth station shall be controlled by an operator holding a certificate issued or recognized by the government to which ~~the station is subject~~ these stations belong. Provided the station is so controlled, other persons besides the holder of the certificate may use the radiotelephone equipment.

J/60/421

ADD 3393A (2A) The service of every aircraft earth station shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is subject. Provided the station is so controlled, other persons besides the holder of the certificate may use the radio equipment installed in such a station.

J/60/422

(MOD) 3393A-(2A) 3393AB (2B) In order to meet special needs, special agreements between administrations may fix the conditions to be fulfilled in order to obtain a radiotelephone operator's certificate intended to be used in radiotelephone stations complying with certain technical conditions and certain operating conditions. These agreements, if made, shall be on the condition that harmful interference to international services shall not result therefrom. These conditions and agreements shall be mentioned in the certificates issued to such operators.

CEPT-9/16/5

USA/24/418

CAN/25/290

AUS/40/359

CTI/86/20

MOD 3393A

(2A) In order to meet special needs, special agreements between administrations may fix the conditions to be fulfilled in order to obtain a radiotelephone operator's certificate intended to be used in aircraft radiotelephone stations and aircraft earth stations complying with certain technical conditions and certain operating conditions. These agreements, if made, shall be on the condition that harmful interference to international services shall not result therefrom. These conditions and agreements shall be mentioned in the certificates issued to such operators.

PHL/77/28

MOD 3393A

In order to meet special needs, special agreements between administrations may fix the conditions to be fulfilled in order to obtain a radiotelephone operator's certificate intended to be used in aircraft radiotelephone stations and aircraft earth stations complying with certain technical conditions and certain operating conditions. These agreements, if made, shall be on the condition that harmful interference to international services shall not result therefrom. These conditions and agreements shall be mentioned in the certificates issued to such operators.

ARG/5/35

NOC 3393A

CEPT-9/16/6
USA/24/419
CAN/25/291
AUS/40/360
CTI/86/21

MOD 3394

The service of automatic communication devices¹ installed in an aircraft station or aircraft earth station shall be controlled by an operator holding a certificate issued or recognised by the government to which the station is subject. Provided the devices are so controlled, they may be used by other persons. If such devices require for their basic function the use of Morse Code signals specified in the Instructions for the Operation of the International Public Telegram Service, the service shall be performed by an operator holding a radiotelegraph operator's certificate. However, this latter requirement does not apply to automatic devices which may use Morse Code signals solely for identification purposes.

ARG/5/36

MOD 3394

~~(3)~~ The service of automatic communication devices¹ installed in an aircraft station shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is subject. Provided the devices are so controlled, they may be used by other persons.

If such devices require for their basic function the use of Morse code signals specified in the Instructions for the Operation of the International Public Telegram Service, the service shall be performed by an operator holding a radiotelegraph operator's certificate. However, for this latter requirement does not apply to no other certificate shall be needed in the case of automatic devices which may use Morse code signals solely for identification purposes.

PRG/61/39

MOD 3394

The service of automatic communication devices¹ installed in an aircraft station or aircraft earth station shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is subject. Provided the devices are so controlled, they may be used by other persons. ~~If such devices require for their basic function the use of Morse code signals specified in the Instructions for the Operation of the International Public Telegram Service, the service shall be performed by an operator holding a radiotelegraph operator's certificate. However, this latter requirement does not apply to automatic devices which may use Morse code signals solely for identification purposes.~~

PHL/77/29

MOD 3394

~~(3)~~ The service of automatic communication devices installed in an aircraft or aircraft earth station shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is ~~subject~~ belongs. Provided the devices are so controlled, they may be used by other persons. ~~If such devices require for their basic function the use of Morse code signals specified in the instruction for the operation of the International Public Telegram Service, the service shall be performed by an operator holding a radiotelegraph operator's certificate. However, for this latter requirement does not apply to no other certificate shall beneeded in the case of~~ automatic devices which may use Morse code signals solely for identification purposes.

ARG/5/37
USA/24/420
AUS/40/360A
PRG/61/40
PHL/77/30
 NOC 3394.1

ARG/5/38
 MOD 3395

(4) Nevertheless, in the service of radiotelephone stations operating solely on frequencies above 30 MHz provided they are not assigned for international use and operate in areas or places where there is no regular aviation activity, each government shall decide for itself whether a certificate is necessary and, if so, shall define the conditions for obtaining it.

USA/24/421
PHL/77/31
 MOD 3395

Nevertheless, in the service of radiotelephone aircraft stations and aircraft earth stations operating radiotelephony solely on frequencies above 30 MHz, each government shall decide for itself whether a certificate is necessary and, if so, shall define the conditions for obtaining it.

PRG/61/41
 MOD 3395

Nevertheless, in the service of radiotelephone aircraft stations and aircraft earth stations operating solely on frequencies above 30 MHz, each government shall decide for itself whether a certificate is necessary and, if so, shall define the conditions for obtaining it.

AUS/40/360B
 NOC 3395

ARG/5/39
 SUP 3396

USA/24/422
PRG/61/42
PHL/77/32
 MOD 3396

The provisions of No. 3395 shall not, however, apply to any aircraft station or aircraft earth station working on frequencies assigned for international use.

AUS/40/360B
CEPT-9/16/6
CAN/25/25
 NOC 3396

ARG/5/40
USA/24/423
PRG/61/43
PHL/77/33
 SUP 3397 - 3398 - 3399

AUS/40/360B
CEPT-9/16/6
CAN/25/25
NOC 3397 - 3398 - 3399

ARG/5/41
AUS/40/360B
PRG/61/44
PHL/77/34
NOC 3400, 3401 and 3402

Section II. Classes and Categories
of Certificates

ARG/5/42
PRG/61/45
PHL/77/35
SUP 3403

J/60/423
USA/24/424
MOD 3403

§5. (1) There are two classes of certificates, as well as a special certificate, for radiotelegraph operators¹.

AUS/40/360B
NOC 3403

CAN/25/291
NOC 3395 to 3404

J/60/424
USA/24/426
PHL/77/36
MOD 3404

(2) There are two categories of radiotelephone operators' certificates, general and restricted¹.

ARG/5/43
AUS/40/362A
NOC 3404

CEPT-9/16/7
J/60/425
USA/24/425
PRG/61/46
AUS/40/361-AUS/40/362
PHL/77/37
SUP 3403.1
3404.1

CAN/25/292
AUS/40/363
USA/24/426
MOD 3405

The holder of a ~~first or second-class~~ radiotelegraph operator's certificate may carry out the radiotelegraph or radiotelephone service of any aircraft station or aircraft earth station, except as provided for in No. 3412.

PRG/61/47
MOD 3405

The holder of a first- or second-class ~~radiotelegraph~~ operator's certificate may carry out the radiotelegraph or radiotelephone service of any aircraft station or aircraft earth station.

PHL/77/38
MOD 3405

The holder of first- or second-class radiotelegraph operator's certificates may carry out the radiotelegraph or radiotelephone service of any aircraft station or aircraft earth station.

CTI/86/22
MOD 3405

§ 6. (1) The holder of a first- or second-class radiotelegraph operator's certificate may carry out the radiotelegraph or radiotelephone service of any aircraft station or aircraft earth station, except as provided for in No. 3412.

ARG/5/44
CEPT-9/16/8
USA/24/428
CAN/25/293
AUS/40/364
PRG/61/48
PHL/77/39
CTI/86/23
MOD 3406

(2) The holder of a radiotelephone operator's general certificate may carry out the radiotelephone service of any aircraft station or of any aircraft earth station.

CTI/86/24
MOD 3407

(3) The holder of a radiotelephone operator's restricted certificate may carry out the radiotelephone service of any aircraft station or aircraft earth station, when working on frequencies of the maritime mobile service ... (remainder of the text unchanged).

CEPT-9/16/9
PRG/61/49
USA/24/429
PHL/77/40
CAN/25/294
AUS/40/365
SUP 3407 - 3409

CAN/25/295
USA/24/430
CEPT-9/16/10
AUS/40/366
PRG/61/50
MOD 3410

The holder of a radiotelephone operator's restricted certificate may carry out the radiotelephone service of any aircraft station or aircraft earth station operating on frequencies allocated exclusively to the aeronautical mobile service or the aeronautical mobile-satellite service, providing that the operating of the transmitter requires only the use of simple external switching devices, ~~excluding all manual adjustment of frequency-determining elements, and that the stability of the frequencies is maintained by the transmitter itself within the limits of tolerance specified by Appendix 7.~~

PHL/77/41

MOD 3410

(4)(3) The holder of a radiotelephone operator's restricted certificate may carry out the radiotelephone service of any aircraft station or any aircraft earth station operating on frequencies allocated exclusively to the aeronautical mobile service or the aeronautical mobile satellite service, provided that the operation of the transmitter requires only the use of simple external switching devices, excluding all manual adjustment of frequency determining elements and that the stability of the frequencies is maintained by the transmitter itself within the limits of tolerance specified by Appendix 7.

CTI/86/25

MOD 3410

(4) The holder of a radiotelephone operator's restricted certificate may carry out the radiotelephone service of any aircraft station or aircraft earth station operating on frequencies allocated ... (remainder of the text unchanged).

ARG/5/45

SUP 3411

USA/24/431

CAN/25/296

AUS/40/367

PHL/77/42

CTI/86/26

CEPT-9/16/11

MOD 3411

~~(5) (4)~~ The radiotelephone service of aircraft stations or aircraft earth stations for which only a restricted radiotelephone operator's certificate is required may be carried out by an operator holding a radiotelegraph operator's special certificate.

PRG/61/51

MOD 3411

The radiotelephone service of aircraft stations or aircraft earth stations for which only a restricted radiotelephone operator's certificate is required may be carried out by an operator holding a radiotelegraph radiotelephone operator's special certificate.

ARG/5/45

PRG/61/52

SUP 3412

USA/24/432

AUS/40/367A

PHL/77/43

NOC 3412

Section III. Conditions for the Issue of Operators' Certificates

ARG/5/46

USA/24/433

AUS/40/367A

PRG/61/53

PHL/77/44

NOC 3413 - 3417

ARG/5/47

PHL/77/45

SUP 3418

USA/24/433

NOC 3418

PRG/61/54
MOD 3418

B. First-Class Radiotelegraph
Operator's Certificate

ARG/5/47
PHL/77/45
SUP 3419

USA/24/433
NOC 3419

PRG/61/55
MOD 3419

The first-class operator's certificate is issued to candidates who have given proof of the technical and professional knowledge and qualifications enumerated below:

ARG/5/47
USA/24/434
PHL/77/45
SUP 3420

PRG/61/56
MOD 3420

- a) knowledge both of the general principles of electricity and of the theory of radio, knowledge of the ~~adjustment and~~ practical working of various types of radiotelegraph and radiotelephone apparatus used in the mobile aeronautical service, ~~including apparatus used for radio direction-finding and the taking of direction-finding bearings, as well as a general knowledge of the principles of operation of other apparatus generally used for radionavigation;~~

CAN/25/297
MOD 3420

- a) ~~knowledge of both of . . . for radionavigation;~~ knowledge of the general principles and theory of radio;

USA/24/435
ADD 3420A

- a) knowledge of the general principles and theory of radio;

ARG/5/47
USA/24/436
PRG/61/57
PHL/77/45
SUP 3421

CAN/25/298
MOD 3421

- b) ~~theoretical and practical . . . in No. 3420,~~ theoretical and practical knowledge of the operation, maintenance and adjustment of the radiotelegraph and radiotelephone apparatus;

USA/24/437
ADD 3421A

- b) theoretical and practical knowledge of the operation, maintenance and adjustment of the radiotelegraph and radiotelephone apparatus;

ARG/5/47
USA/24/438
CAN/25/299
PHL/77/45
SUP 3422

PRG/61/58
MOD 3422

- c) practical knowledge necessary to repair, with the means available on board, damage which may occur to the radiotelegraph, and radiotelephone ~~and radio direction finding~~ apparatus during a flight;

ARG/5/47
PHL/77/45
SUP 3423

PRG/61/59
MOD 3423

- d) ability to ~~send correctly by hand and to receive.~~ correctly by ear, in the Morse code, code groups (mixed letters, figures and punctuation marks) at a speed of 2 twenty groups a minute, and a plain language text at a speed of twenty-five words a minute. ~~Each code group shall comprise five characters, each figure or punctuation mark counting as two characters. The average word of the text in plain language shall contain five characters.~~ The duration of each test of sending and of receiving shall be, as a rule, five minutes;

USA/24/439
MOD 3423

- d) c) ability to send correctly by hand and receive correctly by ear, in the Morse code, code groups (mixed letters, figures and punctuation marks)¹ at a speed of twenty groups a minute, and a plain language text at a speed of twenty-five words² a minute. ~~Each code group shall comprise five characters, each figure or punctuation mark counting as two characters. The average word of the text in plain language shall contain five characters.~~ The duration of each test of sending and of receiving shall be, as a rule, five minutes;

USA/24/440
ADD 3423.1

¹Each code group shall comprise five characters, each figure or punctuation counting as two characters.

USA/24/441
ADD 3423.2

²The average word of the text in plain language shall contain five characters.

ARG/5/47
PHL/77/45
SUP 3424

PRG/61/60
NOC 3424

USA/24/442
MOD 3424

e) d) ability to send correctly and to receive correctly by radiotelephone in one of the working languages of the Union;

ARG/5/47
PHL/77/45
SUP 3425

USA/24/443
MOD 3425

f) e) detailed knowledge of the Regulations applying to radiocommunications, ~~knowledge of the documents relating to charges for radiocommunications,~~ knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio, and, in the case of air navigation, knowledge of the special provisions governing the aeronautical fixed, mobile, and radio-navigation services. In the latter case, the certificate states that the holder has successfully passed the tests relating to these special provisions.

PRG/61/61
CAN/25/300
MOD 3425

f) detailed knowledge of the Regulations applying to radiocommunications, ~~knowledge of the documents relating to charges for radiocommunications,~~ knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio, and, in the case of air navigation, knowledge of the special provisions governing the aeronautical

ARG/5/47
USA/24/444
CAN/25/301
PHL/77/45
SUP 3426

PRG/61/62
NOC 3426

ARG/5/47
USA/24/444
PHL/77/45
SUP 3427

PRG/61/63
NOC 3427

ARG/5/47
PHL/77/45
SUP 3428

USA/24/445
NOC 3428

PRG/61/64
MOD 3428

C. Second-Class Radiotelegraph
Operator's Certificate

ARG/5/47
PHL/77/45
SUP 3429

USA/24/445
NOC 3429

PRG/61/65
MOD 3429

The second-class operator's certificate is issued to candidates who have given proof of the technical and professional knowledge and qualifications enumerated below:

ARG/5/47
PHL/77/45
USA/24/446
SUP 3430

PRG/61/66
MOD 3430

- a) elementary theoretical and practical knowledge of electricity and of radio, knowledge of the ~~adjustment and~~ practical working of the various types of radiotelegraph and radiotelephone apparatus used in the aeronautical mobile service, ~~including apparatus used for radio-direction-finding and the taking of direction-finding bearings, as well as elementary knowledge of the principle of operation of other apparatus in general use for radionavigation;~~

CAN/25/302
MOD 3430

- a) ~~elementary-theoretical----~~for-radionavigation;
elementary theoretical and practical knowledge of basic radiocommunications;

USA/24/447
ADD 3430A

- a) elementary theoretical and practical knowledge of basic radiocommunications;

ARG/5/47
USA/24/448
PRG/61/67
PHL/77/45
SUP 3431

CAN/25/303
MOD 3431

- b) ~~elementary-theoretical----~~ No--3430 elementary theoretical and practical knowledge of the operation, maintenance and adjustment of radiotelegraph and radiotelephone apparatus;

USA/24/449
ADD 3431A

- b) elementary theoretical and practical knowledge of the operation, maintenance and adjustment of radiotelegraph and radiotelephone apparatus;

ARG/5/47
USA/24/450
CAN/25/304
PHL/77/45
SUP 3432

PRG/61/68
MOD 3432

- c) practical knowledge sufficient for effecting repairs in the case of minor damage which may occur to the radiotelegraph, and radiotelephone and radio direction-finding apparatus during a flight;

ARG/5/47
PHL/77/45
SUP 3433

USA/24/451
MOD 3433

- d) c) ability to send correctly by hand and to receive correctly by ear, in the Morse code, code groups (mixed letters, figures and punctuation marks) at a speed of sixteen groups a minute, and a plain language text at a speed of twenty words a minute. Each code-group shall comprise five characters, each figure or punctuation mark counting as two characters. The average word of the text in plain language shall contain five characters. The duration of each test of sending and of receiving shall, as a rule, be five minutes. (The provisions of Nos. ADD 3423.1 and ADD 3423.2 also apply.)

PRG/61/69

MOD 3433

- d) ability to ~~send correctly by hand and to~~ receive correctly by ear, in the Morse code, code groups (mixed letters, figures and punctuation marks) at a speed of sixteen groups a minute, and a plain language text at a speed of twenty words a minute. ~~Each code group shall comprise five characters, each figure or punctuation mark counting as two characters. The average word of the text in plain language shall contain five characters.~~ The duration of each test ~~of sending and of receiving~~ shall, as a rule, be five minutes.

ARG/5/47

PHL/77/45

SUP 3434

PRG/61/70

MOD 3434

- e) ability to send correctly and to receive correctly by radiotelephone, ~~except in the case provided for in No. 3412;~~

USA/24/452

MOD 3434

- e) d) ability to send correctly and to receive correctly by radiotelephone ~~except in the case provided for in No. 3412~~ in one of the working languages of the Union;

ARG/5/47

PHL/77/45

SUP 3435

USA/24/453

CAN/25/305

PRG/61/71

MOD 3435

- f) e) knowledge of the Regulations applying to radiocommunications, ~~knowledge of the documents relating to charges for radiocommunications,~~ knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio, and, in the case of air navigation, knowledge of the special provisions governing the aeronautical fixed, mobile, and radio-navigation services. In the latter case, the certificate states that the holder has successfully passed the tests relating to these special provisions.

ARG/5/47

USA/24/454

CAN/25/306

PHL/77/45

SUP 3436

PRG/61/72

NOC 3436

CAN/25/306
NOC 3437 - 3453

ARG/5/47
USA/24/454
PHL/77/45
SUP 3437

PRG/61/73
NOC 3437

ARG/5/47
PRG/61/74
SUP 3438 - 3439

ARG/5/47
PRG/61/74
PHL/77/46
SUP 3440

ARG/5/47
PRG/61/74
SUP 3441

PHL/77/46
NOC 3441

USA/24/457
MOD 3441 3440

b) a) knowledge of the practical operation and adjustment of radiotelegraph and radiotelephone apparatus;

USA/24/458
ADD 3441A

c) ability to send and receive radiotelephone signals correctly in one of the working languages of the Union;

ARG/5/47
PRG/61/74
SUP 3442

PHL/77/46
NOC 3442

USA/24/459
(MOD) 3442

e) d) knowledge of the Regulations applying to radiotelegraph communications and specifically of that part of those Regulations relating to safety of life at sea.

ARG/5/47
SUP

PHL/77/46
NOC

PRG/61/75

MOD 3443

Each administration concerned shall fix the other conditions for obtaining this certificate. However, ~~except as provided for in No. 3412,~~ the conditions specified in Nos. 3450, 3451, 3452 and 3453 or 3454, as the case may be, shall be satisfied;

USA/24/460

MOD 3443

Each administration concerned ~~shall~~ may fix the other conditions for obtaining this certificate. However, ~~except as provided for in No. 3412, the conditions specified in Nos. 3450, 3451, 3452 and 3453 or 3454, as the case may be, shall be satisfied.~~

ARG/5/48

PRG/61/76

PHL/77/47

NOC 3444

ARG/5/48

USA/24/461

PRG/61/76

PHL/77/47

NOC 3445 - 3447

ARG/5/48

PRG/61/76

PHL/77/47

NOC 3448

USA/24/462

MOD 3448

c) ability to send correctly and to receive correctly by telephone in one of the working languages of the Union;

ARG/5/48

USA/24/463

PRG/61/76

PHL/77/47

NOC 3449 - 3450

ARG/5/48

USA/24/463

PHL/77/47

NOC 3451

PRG/61/77

MOD 3451

a) practical knowledge of radiotelephone ~~operation and~~ procedure;

ARG/5/48

PHL/77/47

NOC 3452

PRG/61/78
MOD 3452

- b) ability to send correctly and to receive correctly by telephone and sufficient knowledge of one of the working languages of the Union.

USA/24/464
MOD 3452

- b) ability to send correctly and to receive correctly by telephone in one of the working languages of the Union;

ARG/5/48
USA/24/465
PRG/61/79
PHL/77/47
NOC 3453

ARG/5/49
MOD 3454

(2) For aircraft radiotelephone stations and aircraft radiotelephone earth stations operating on frequencies allocated exclusively to the aeronautical mobile service, irrespective of the system used, each administration may itself fix (remaining text unchanged).

CAN/25/307
CEPT-9/16/12
AUS/40/368
PHL/77/48
CTI/86/27
MOD 3454

For aircraft radiotelephone stations and aircraft earth stations operating on frequencies allocated exclusively to the aeronautical mobile (R) service or the aeronautical mobile-satellite (R) service, each administration....

USA/24/466
MOD 3454

For aircraft radiotelephone stations and aircraft earth stations operating on frequencies allocated exclusively to the aeronautical mobile service or the aeronautical mobile satellite service, each administration may itself fix the conditions for obtaining a radiotelephone operator's restricted certificate, provided that the operation of the transmitter requires only the use of simple external switching devices, excluding all manual adjustment of frequency determining elements, and that the stability of the frequencies is maintained by the transmitter itself within the limits of tolerance specified in Appendix 7. However, in fixing these conditions, administrations shall ensure that the operator has an adequate knowledge of radiotelephone operation and procedure particularly as far as distress, urgency and safety are concerned. This in no way contravenes the provisions of No. 3393A.

PRG/61/80

MOD 3454

For aircraft radiotelephone stations and aircraft earth stations operating on frequencies allocated exclusively to the aeronautical mobile service or the aeronautical mobile-satellite service, each administration may itself fix the conditions for obtaining a radiotelephone operator's restricted certificate, provided that the operation of the transmitter requires only the use of simple external switching devices, ~~excluding all manual adjustment of frequency determining elements, and that the stability of the frequencies is maintained by the transmitter itself within the limits of tolerance specified in Appendix 7.~~ However, in fixing these conditions, administrations shall ensure that the operator has an adequate knowledge of radiotelephone operation and procedure particularly as far as distress, urgency and safety are concerned.

ARG/5/50

PRG/61/81

PHL/77/49

NOC 3455

ARG/5/50

USA/24/467

PRG/61/82

PHL/77/49

NOC 3456

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

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21 September 1987
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WORKING GROUP 6-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-B

In order to assist Working Group 6-B, attached is a consolidated document concerning proposals on Articles 45 to 49.

Y. HIRATA
Chairman of Working Group 6-B

Attachment: 1

ATTACHMENT

ARTICLE 45

ARG/5/51
CEPT-9/16/13
USA/24/468
CAN/25/308
AUS/40/369
J/60/430
PRG/61/83
PHL/77/50

MOD

**Personnel of Aeronautical Stations
and Aeronautical Earth Stations**

CEPT-9/16/14
USA/24/469
CAN/25/309
AUS/40/370
PRG/61/84
PHL/77/51
CTI/86/28
ARG/5/52

MOD 3483

Administrations shall ensure that the staff on duty in aeronautical stations and in aeronautical earth stations shall be adequately qualified to operate the station.

J/60/431

MOD 3483

Administrations shall ensure that the staff on duty in aeronautical stations and aeronautical earth stations shall be adequately qualified to operate these stations efficiently.

ARTICLE 46

ARG/5/54
CTI/86/29
MEX/114/41

MOD 3509

§.1 (1) The governments or appropriate administrations of countries which an aircraft station or an aircraft earth station visits may require the production of the licence for examination ... (remaining text unchanged).

CEPT-9/16/15
USA/24/470
CAN/25/310
J/60/432
PRG/61/85

MOD 3509

§ 1. (1) The governments or appropriate administrations of countries which an aircraft station or aircraft earth station visits may require the production of the licence for examination. The operator of the station, or the person responsible for the station, shall facilitate this examination. The licence shall be kept in such a way that it can be produced upon request. ~~As far as possible, the licence, or a copy certified by the authority which has issued it, should be permanently exhibited in the station.~~

AUS/40/371
#MOD 3509

(1) The governments or appropriate administrations of countries which visit an aircraft station or aircraft earth station visits may require the production of the licence for examination. The operator of the station, or the person responsible for the station, shall facilitate this examination. The licence shall be kept in such a way that it can be produced upon request. ~~As far as possible, the licence, or a copy certified by the authority which has issued it, should be permanently exhibited in the station.~~

PHL/77/52
MOD 3509

§.1 (1) The governments or appropriate administrations of countries which an aircraft station or an aircraft earth station visits may require the production of the licence for examination. The operator of the station, or the person responsible for the station, shall facilitate this examination. The licence shall be kept in such a way that it can be produced upon request. As far as possible, the licence, or a copy certified by the authority which has issued it, should be permanently exhibited in a conspicuous place in the station.

ARG/5/55
MOD 3510

(2) The inspectors shall have in their possession an identity card or badge, issued by the competent authority, which they shall show on request to the person responsible for the aircraft aeronautical station or the aircraft earth station.

CEPT-9/16/16
USA/24/471
CAN/25/311
AUS/40/372
J/60/433
PRG/61/86
PHL/77/53
CTI/86/30
MEX/114/42
MOD 3510

(2) The inspectors shall have in their possession an identity card or badge, issued by the competent authority, which they shall show on request of the person responsible for the aircraft station or the aircraft earth station.

ARG/5/56
USA/24/472
CAN/25/311A
AUS/40/373
PRG/61/87
PHL/77/54
MEX/114/42
NOC 3511

ARG/5/56
USA/24/472
CAN/25/311A
AUS/40/373
PRG/60/88
PHL/77/54
MEX/114/42
NOC 3512

CEPT-9/16/17
ARG/5/57
USA/24/473
CAN/25/312
AUS/40/374
J/60/434
PRG/61/89
PHL/77/55
CTI/86/31
MEX/114/43

MOD 3513

§ 2. (1) When a government or an administration has found it necessary to adopt the course indicated in No. 3511, or when the operators' certificates cannot be produced, the government or administration to which the aircraft station or aircraft earth station is subject shall be so informed without delay. In addition, the procedure specified in Article 21 is followed when necessary.

ARG/5/58
USA/24/474
AUS/40/375
PRG/61/90
PHL/77/56
MEX/114/43

NOC 3514

J/60/435

MOD 3514

(2) Before leaving, the inspector shall report the result of his inspection to the person responsible for the aircraft station or the aircraft earth station. If any breach of the conditions imposed by these Regulations is observed, the inspector shall make this report in writing.

CEPT-9/16/18
ARG/5/59
USA/24/475
CAN/25/313
AUS/40/376
J/60/436
PRG/61/91
PHL/77/57
CTI/86/32

MOD 3515

§ 3. Members undertake not to impose upon foreign aircraft stations or aircraft earth stations which are temporarily within their territorial limits ... by these Regulations.

ARTICLE 47

CEPT-9/16/19
ARG/5/60
USA/24/476
CAN/25/314
AUS/40/377
J/60/437
PRG/61/92
PHL/77/58
CTI/86/33
MEX/114/45

MOD

Section I. Working Hours of Stations in the
Aeronautical Mobile Service and in the
Aeronautical Mobile-Satellite Service

CEPT-9/16/20
USA/24/477
CAN/25/315
AUS/40/378

MOD 3541

§ 1. ~~In order to permit the application of the following rules on the subject of hours of watch~~ Every station of the aeronautical mobile service and the aeronautical mobile-satellite service shall have an accurate clock correctly regulated to Coordinated Universal Time (UTC).

ARG/5/61
PRG/61/93
PHL/77/59
CTI/86/34
MEX/114/46

MOD 3541

§ 1. In order to permit the application of the following rules on the subject of hours of watch, every station of the aeronautical mobile service and of the aeronautical mobile-satellite service shall have an accurate clock correctly regulated to Coordinated Universal Time (UTC).

J/60/438

MOD 3541

§ 1. ~~In order to permit the application of the following rules on the subject of hours of watch~~, Every station of the aeronautical mobile service and the aeronautical mobile-satellite service to which the following rules on the subject of hours of watch apply, shall have an accurate clock correctly regulated to Coordinated Universal Time (UTC).

J/60/439
MOD

**Section II. Aeronautical Stations and
Aeronautical Earth Stations**

CTI/86/35
MOD

**Section II. Aeronautical Stations or
Aeronautical Earth Stations**

CEPT-9/16/21
USA/24/478
CAN/25/316
AUS/40/379
J/60/440
PRG/61/94
PHL/77/60
CTI/86/36
ARG/5/62
MOD 3542

§ 2. The service of an aeronautical station or an aeronautical earth station shall be continuous throughout the period during which it bears responsibility for the radiocommunication service to aircraft in flight.

J/60/441
MOD

**Section III. Aircraft Stations and
Aircraft Earth Stations**

CTI/86/37
MOD

**Section III. Aircraft Stations or
Aircraft Earth Stations**

CEPT-9/16/22
USA/24/479
CAN/25/317
AUS/40/380
J/60/442
PHL/77/61
CTI/86/38
ARG/5/63
MOD 3542A

§ 2A. Aircraft stations and aircraft earth stations in flight shall maintain service to meet the essential communications needs of the aircraft with respect to safety and regularity of flight and shall maintain watch as required by the competent authority and shall not cease watch, except for reasons of safety, without informing the aeronautical station or aeronautical earth station concerned.

CEPT-9/16/23
USA/24/480
URS/32/1
PRG/61/95
PHL/77/62
SUP 3543

J/60/443
MOD 3543

§ 3. For the international public correspondence service, aircraft stations and aircraft earth stations constitute a single category. The duration of the service of such stations is not fixed by these Regulations.

ARTICLE 48

CEPT-9/16/24
ARG/5/64
CAN/25/318
AUS/40/381
PRG/61/96
PHL/77/63
CTI/86/39
MEX/114/50
URS/135/1

MOD

Aircraft Stations and Aircraft Earth Stations
Communicating with Stations in the
Maritime Mobile Service and in the
Maritime Mobile-Satellite Service

USA/24/481

MOD

Aircraft Stations, Including Earth Stations,
On Board Aircraft Communicating with
Stations in the Maritime Mobile Service
and in the Maritime Mobile-Satellite Service

B/57/181

MOD

Aircraft Stations or Aircraft Earth Stations
Communicating with Stations in the Maritime
Mobile Service or in the Maritime
Mobile-Satellite Service respectively

J/60/444

MOD

~~Aircraft Stations~~ Mobile Stations in the
Aeronautical Mobile Service and Mobile
Earth Stations in the Aeronautical
Mobile-Satellite Service Communicating
with Stations in the Maritime Mobile Service
and in the Maritime Mobile-Satellite Service

CEPT-9/16/25

MOD 3571

Stations on board aircraft may communicate, for purposes of distress, and for public correspondence¹, with stations of the maritime mobile service or maritime mobile-satellite service. For these purposes, they shall conform to the relevant provisions of Chapters IX, XIX and XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

ARG/5/65

B/57/182

PHL/77/64

MOD 3571

Aircraft stations ~~on board aircraft~~ and aircraft earth
stations may communicate, for purposes of distress, and for public
correspondence¹, with stations of the maritime mobile or maritime
mobile-satellite service. For these purposes they shall conform to
the relevant provisions of Chapter XI, Article 59, Section III,
Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

USA/24/482
MOD 3571

Stations, including earth stations, on board aircraft may communicate, for purposes of distress, and for public correspondence¹, with stations of the maritime mobile service or maritime mobile-satellite service. For these purposes they shall conform to the relevant provisions of Chapter XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

CAN/25/319
MOD 3571

~~Stations on-board Aircraft~~ stations and aircraft earth stations may communicate, for purposes of distress, and for public correspondence¹, with stations of the maritime mobile service or maritime mobile-satellite service. For these purposes, they shall conform to the relevant provisions of Chapters IX and XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

AUS/40/382
MOD 3571

~~Stations on-board Aircraft~~ stations and aircraft earth stations may communicate, for purposes of distress, and for public correspondence¹, with stations of the maritime mobile or maritime mobile-satellite service. For these purposes, they shall conform to the relevant provisions of Chapters IX or NIX, Chapter XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

PRG/61/97
MOD 3571

Aircraft stations and earth stations on board aircraft may communicate, for purposes of distress, and for public correspondence¹, with stations of the maritime mobile or maritime mobile-satellite service. For these purposes they shall conform to the relevant provisions of Chapter XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

J/60/445
MOD 3571

~~Stations on-board aircraft~~ Mobile stations in the aeronautical mobile service and mobile earth stations in the aeronautical mobile-satellite service may communicate, for purposes of distress, and for public correspondence¹, with stations of the maritime mobile service or maritime mobile-satellite service. For these purposes they shall conform to the relevant provisions of Chapter XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

URS/32/2
MOD 3571

Stations on board aircraft may communicate, ~~for the purposes of distress, and for public correspondence~~¹, with stations of the maritime mobile or maritime mobile-satellite service. For these purposes, they shall conform to the relevant provisions of Chapter XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

URS/135/2
MOD 3571

Stations on board Aircraft stations and aircraft earth stations may communicate for purposes of distress and for public correspondence, with stations of the maritime mobile or maritime mobile-satellite services. For these purposes They shall conform to those provisions of these Regulations which relate to these services the relevant ... (see Article 59, Section III, Articles 61, 62, 63, 65 and also Nos. MOD 962 and MOD 3633).

CTI/86/40
MOD 3571

Aircraft or aircraft earth stations on board aircraft may communicate, for purposes of distress and for public correspondence¹, ... (remainder of the text unchanged).

MEX/114/51
MOD 3571

Stations on board aircraft and aircraft earth stations may communicate, for purposes of distress, and for public correspondence¹, with stations of the maritime mobile service or maritime mobile-satellite service. For these purposes, they shall conform to the relevant provisions of Chapters IX, NIX and XI, Article 59, Section III, Articles 61, 62, 63, 65 and 66 (see also Nos. 962, 963 and 3633).

URS/32/3
SUP 3571.1

AUS/40/383
CAN/25/320
B/57/183
J/60/446
CTI/86/41
MOD 3571.1

¹An aircraft station and aircraft earth station may communicate and regularity of flight.

ARG/5/66
USA/24/484
PRG/61/98
PHL/77/65
MEX/114/51
NOC 3571.1

ARTICLE 49

J/60/447
MOD

**Conditions to be Observed by Mobile Stations in the
Aeronautical Mobile Service and by Mobile Earth Stations
in the Aeronautical Mobile-Satellite Service**

MEX/114/51
NOC

CEPT-9/16/26
ARG/5/67
USA/24/485
AUS/40/384
PHL/77/66
CTI/86/42
MEX/114/52
ADD

Section I. Aeronautical Mobile Service

USA/24/486
PRG/61/99
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3597

J/60/448
MOD 3597

§ 1. Mobile stations and mobile earth stations shall be established in such a way as to conform to the provisions of Chapters III and X as regards frequencies and classes of emission.

USA/24/486
PRG/61/100
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3598

J/60/449
MOD 3598

§ 2. The frequencies of emission of mobile stations and mobile earth stations shall be checked as often as possible by the inspection service to which these stations are subject.

USA/24/486
PRG/61/101
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3599

USA/24/486
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3600

J/60/450
MOD 3600

§ 4. Administrations shall take all practicable steps necessary to ensure that the operation of any electrical or electronic apparatus installed in ~~mobile stations~~ aircraft does not cause harmful interference to the essential radio services of stations which are operating in accordance with the provisions of these Regulations.

PRG/61/102
MOD 3600

Administrations shall take all practicable steps necessary to ensure that the operation of any electrical or electronic apparatus installed in ~~mobile~~ aircraft stations or aircraft earth stations does not cause harmful interference to the essential radio services of other stations which are operating in accordance with the provisions of these Regulations.

USA/24/486
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3601

PRG/61/103
SUP 3601

J/60/451
MOD 3601

§ 5. (1) Changes of frequency in the sending and receiving apparatus of any mobile station and of any mobile earth station shall be capable of being made as rapidly as possible.

USA/24/486
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3602

PRG/61/103
SUP 3602

J/60/452
MOD 3602

(2) Installations of any mobile station and of any mobile earth station shall be capable, once communication is established, of changing from transmission to reception and vice versa in as short a time as possible.

USA/24/486
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3603

PRG/61/104
MOD 3603

The operation of a broadcasting service (see No. 36) by an aircraft station or an aircraft earth station at sea and over the sea is prohibited (see also No. 2665).

USA/24/486
PRG/61/105
PHL/77/67
CTI/86/42
MEX/114/52
NOC 3604

J/60/453
MOD 3604

§ 7. Mobile stations and mobile earth stations other than survival craft stations shall be provided with the documents enumerated in the appropriate section of Appendix 11 (Section VI, "Aircraft Stations and Aircraft Earth Stations").

ARG/5/68
USA/24/487
AUS/40/385
PHL/77/68
CTI/86/43
MEX/114/54
CEPT-9/16/27
ADD

Section II. Aeronautical Mobile-Satellite Service

ARG/5/69
USA/24/488
AUS/40/386
PHL/77/69
CTI/86/41
MEX/114/54
CEPT-9/16/28
ADD 3605

The provisions of Nos. 3597 to 3604 are also applicable
to aircraft earth stations.

WORKING GROUP 6-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-B

In order to assist Working Group 6-B, attached is a consolidated document concerning proposals on Articles 51 to 53.

Note - Proposals by the USSR relating to the rearrangement of Article 52 are not included in this document; they appear in Document 134-E.

Y. HIRATA
Chairman of Working Group 6-B

Attachment: 1

ATTACHMENT

ARTICLE 51

CAN/25/325

CHN/63/4

B/57/188

MOD 3651 The order of priority for communications¹ in the aeronautical mobile service and the aeronautical mobile-satellite service shall be as follows, except where impracticable on a fully automated system in which nevertheless Category I shall receive priority:

1. Distress calls, distress messages and distress traffic.
2. ~~Communications preceded by the urgency signal.~~ Urgency messages.
3. ~~Communications preceded by the safety signal.~~ Communications relating to radio direction finding.
4. ~~Communications relating to radio direction finding.~~ Flight safety messages.
5. ~~Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operations.~~ Meteorological messages.
6. ~~Communications relating to the navigation, movements and needs of aircraft and ships, and weather observation messages destined for an official meteorological service.~~ Flight regularity messages.
7. Radio-telegrams relating to the application of the United Nations Charter. Service communications relating to the working of the telecommunications service or communications previously exchanged.
- ~~8. - - - Government radio-telegrams - - - has been expressly requested.~~
- ~~9. - - - Government communications - - - and press radiotelegrams -~~
- ~~10. - - - Service communications - - - previously exchanged -~~

CEPT-9/16/35
MOD 3651

§ 1. The order of priority for communication¹ in the aeronautical mobile service and the aeronautical mobile-satellite service shall be as follows, except where impracticable in a fully automated system in which, nevertheless, Category 1 shall receive priority;

1. Distress calls, distress messages, and distress traffic.

2. ~~Communications preceded by the urgency signal.~~
Urgency messages.

3. ~~Communications preceded by the safety signal.~~
Communications relating to radio direction finding.

4. ~~Communications relating to radio direction finding.~~
Flight safety messages.

5. ~~Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operations.~~
Meteorological messages.

6. ~~Communications relating to the navigation, movements and needs of aircraft and ships, and weather observation messages destined for an official meteorological service.~~
Flight regularity messages.

7. ETATPRIORITENATIONS - Radiotelegrams relating to the application of the United Nations Charter.

8. ETATPRIORITE - Government radiotelegrams with priority and Government calls for which priority has been expressly requested.

9. Service communications relating to the working of the telecommunication service or to communications previously exchanged.

10. Government communications other than those shown in 8 above, ordinary private communications, RCT¹ radiotelegrams and ~~press-radiotelegrams,~~ airline administrative traffic.

USA/24/495

MOD 3651 The order of priority for communications¹ in the aeronautical mobile service and the aeronautical mobile-satellite service shall be as follows, except where impractical in a fully automated system in which, nevertheless, category 1 shall receive priority;

1. Distress calls, distress messages, and distress traffic.
2. ~~Communications preceded by the urgency signal~~ Urgency messages.
3. ~~Communications preceded by the safety signal relating to radio direction finding.~~
4. Communications relating to navigation and safe movement of aircraft engaged in search and rescue operations.
- 4- ~~5.~~ Communications relating to radio direction-finding Flight safety messages.
- 5- ~~6.~~ Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operations Meteorological messages.
- 6- ~~7.~~ Flight regularity messages and communications relating to the navigation, movements, and needs of aircraft and ships, and weather observation messages destined for an official meteorological service.
- 7- ~~ETATPRIORITENATIONS --- Radiotelegrams relating to the application of the United Nations Charter.~~
- 8- ~~ETATPRIORITE --- Government radio-telegrams --- has been expressly requested.~~
- 9- ~~Service communications --- previously exchanged.~~
- 10- ~~Government communications --- and press radiotelegrams.~~

AUS/40/391

MOD 3651 1. The order of priority for communications¹ in the aeronautical mobile service and the aeronautical mobile-satellite service shall be as follows, except where impractical on a fully automated system in which, nevertheless, category I shall receive priority:

J/60/462

MOD 3651 The order of priority for communications¹ in the aeronautical mobile service and the aeronautical mobile-satellite service shall be as follows, except where impractical in a fully automated system in which, nevertheless, categories 1 and 2 shall receive priority;

1. Distress calls, distress messages, and distress traffic.
2. Urgency messages, including messages preceded by the medical transports signal.
3. Communications preceded by the urgency signal relating to direction finding.
4. Flight safety messages.
~~Communications relating to radio direction finding.~~
5. Meteorological messages.
~~Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operation.~~
6. Flight regularity messages.
~~Communications relating to the navigation movements, and needs of aircraft and ships, and weather observation messages destined for an official meteorological service.~~
7. ETATPRIORITENATIONS - Radiotelegrams relating to the application of the United Nations Chapter.
8. ETATPRIORITE - Government radiotelegrams with priority and Government calls for which priority has been expressly requested.
9. Service communications relating to the working of the telecommunication service or to communications previously exchanged.
10. Government communications other than those shown in 8 above, ordinary private communications, RCT¹ radiotelegrams and press radiotelegrams.

PRG/61/113
MOD 3651

The order of priority for communications¹ in the aeronautical mobile service and aeronautical mobile-satellite service shall be as follows, except where impracticable in a fully-automated system in which, nevertheless, category 1 shall receive priority:

PRG/61/114
NOC

1.

PRG/61/115
MOD

2. ~~Communications preceded by the urgency signal.~~
Urgency messages.

PRG/61/116
MOD

3. ~~Communications preceded by the safety signal.~~
relating to radio direction-finding.

PRG/61/117
MOD

4. Communications relating to ~~radio direction-finding~~
the safety of air navigation.

PRG/61/118
MOD

5. Communications relating to the ~~navigation and safe movement of aircraft engaged in search and rescue operations~~
safety of air navigation, of aircraft engaged in search and rescue operations.

PRG/61/119
MOD

6. Communications relating to the flight regularity
and navigation, movements and needs of aircraft and ships, and weather observation messages destined for an official meteorological service.

PRG/61/120
SUP

7, 8, 9 and 10

CEPT-9/16/36
USA/24/496
B/57/189
PRG/61/121
NOC 3651.1

USA/24/497
CAN/25/326
B/57/191
PRG/61/122
SUP 3651.2

CEPT-9/16/37
CEPT-9/16/38
USA/24/498
B/57/190
PRG/61/123
NOC 3651-2
NOC 3652

ARG/5/71
USA/24/499
PRG/61/124

SUP 3677 - 3767

URS/32/13
NOC 3679

URS/32/13
NOC 3680

CAN/25/327
URS/32/16

MOD 3683 As a general rule, it rests with the aircraft station to establish communication with the aeronautical station. For this purpose, the aircraft station may call the aeronautical station only when it comes within the service designated operational coverage¹ area of the latter; ~~that is to say, that area within which, by using an appropriate frequency, the aircraft station can be heard by the aeronautical station.~~

CAN/25/329
ADD 3683.1 Designated operational coverage is that volume of airspace.
3684.1 needed operationally to provide a particular service and within which the facility is afforded frequency protection by an allotment plan or by co-ordination.

URS/32/17
ADD 3683.1 ¹Designated operational coverage is that volume of airspace needed operationally to provide a particular service and within which the facility is afforded frequency protection.

CAN/25/328
MOD 3684 However, an aeronautical station having traffic for an aircraft station may call this station if it has reason to believe that the aircraft station is keeping watch and is within the service designated operational coverage¹ area of the aeronautical station.

URS/32/18
MOD 3684 (2) ~~However, An~~ aeronautical station having traffic for an aircraft station may call this station if it has reason to believe that the aircraft station ~~is keeping watch and is within the~~ designated operational coverage ~~service area of the aeronautical station (see No. 3683.1).~~

CAN/25/330

URS/32/19

MOD

3685 When an aeronautical station receives calls from several aircraft stations at practically the same time, it decides the order in which these stations may transmit their traffic. Its decision shall be based upon the priority in Article 51. ~~(see No. 3651) of the radiotelegrams that aircraft stations have on hand and on the need for allowing each calling station to clear the greatest possible number of communications.~~

URS/32/20

ADD 3685A

Before a call, the station sending the call must make sure that the station called is not in communication with another station.

CAN/25/331

MOD

3686 ~~When a station called does not reply to a call sent three times at intervals of two minutes, the calling shall cease and shall not be renewed until after an interval of fifteen minutes. Before initiating a call, the calling station shall ascertain that the station called is not in communication with another station.~~

URS/32/21

MOD 3686

§ 7. (1) When a station called does not reply to a call sent three times at intervals of two minutes, the calling shall ~~cease and shall not be renewed until after an interval of fifteen minutes.~~ may not be renewed until after an interval of three minutes.

URS/32/22

SUP 3687

CAN/25/331A

MOD

3687 ~~Before renewing the call, the calling station shall ascertain that the station called is not in communication with another station. When a call has been made to an aeronautical station, a period of at least 10 seconds should elapse before a subsequent call is made.~~

CAN/25/332

URS/32/23

SUP

3688

3688, 3690

URS/32/24

NOC

3689

CAN/25/333

URS/32/23

SUP

3691 - 3694

URS/32/31

SUP

3701

URS/32/33
SUP 3702-3706

Reasons: Not applied in the aeronautical mobile service.

URS/32/36
NOC 3708

URS/32/37
MOD 3709

(2) However, in the bands between ~~4 000 kHz and 27 500 kHz~~
2 850 kHz and 23 350 kHz when the conditions ... This call may be
sent three times at intervals of two minutes. ~~Thereafter it shall~~
~~not be repeated until an interval of fifteen minutes has elapsed.~~

URS/32/38
SUP 3710-3718

URS/32/39
NOC 3719, 3720

URS/32/40
SUP 3721-3736

URS/32/42
MOD 3738 § 24. (1) If the station called is unable to accept traffic
immediately, it shall reply to the call as indicated in
~~Nos. 3724-3729~~ No. 3719, but it shall replace the letter K by the
signal ~~.....~~ (wait), followed by a number indicating in minutes
the probable duration of the waiting time. ~~If the probable~~
~~duration exceeds ten minutes (five minutes in the case of an~~
~~aircraft station communicating with a station of the maritime~~
~~mobile service), the reason for the delay shall be given.~~

URS/32/43
NOC 3739

URS/32/45
SUP 3740 - 3753

URS/32/47
NOC 3755

URS/32/48
SUP 3756

URS/32/50
MOD 3758 § 30. (1) The acknowledgement of receipt of a radiotelegram ~~or a~~
~~series of radiotelegrams~~ shall be given by the receiving station
in the following manner:

URS/32/51
SUP 3759

URS/32/53
NOC 3761

URS/32/54
SUP 3762

URS/32/56
SUP 3763

URS/32/60
SUP 3766 - 3767

ARTICLE 53

CEPT-9/16/39
AUS/40/392
J/60/463
URS/32/61
SUP 3793

USA/24/500
PRG/61/125
NOC 3793

USA/24/501
CAN/25/335
J/60/464

MOD 3794 As a general rule, it rests with the aircraft station to establish communication with the aeronautical station. For this purpose, the aircraft station may call the aeronautical station only when it comes within the service designated operational coverage area of the latter, ~~that is to say, that area within which, by using an appropriate frequency, the aircraft station can be heard by the aeronautical station.~~

URS/32/62
MOD 3794 § 2. (1) As a general rule, it rests with the aircraft station to establish communication with the aeronautical station. For this purpose the aircraft station may call the aeronautical station only when it comes within the designed operational coverage ~~service~~ area of the latter (see No. 3683.1), ~~that is to say, that area within which, by using an appropriate frequency, the aircraft station can be heard by the aeronautical station.~~

PRG/61/125
NOC 3794

USA/24/502
J/60/466
CAN/25/337

ADD 3794.1 ¹Designated operational coverage is that volume of airspace needed operationally in order to provide a particular service and within which the facility is afforded frequency protection.

USA/24/503
CAN/25/336
J/60/465

MOD 3795 However, an aeronautical station having traffic for an aircraft station may call this station if it has reason to believe that the aircraft station is keeping watch and is within the service designated operational coverage¹ area of the aeronautical station.

PRG/61/125
NOC 3795

URS/32/63
MOD 3795 (2) ~~However,~~ An aeronautical station having traffic for an aircraft station may call this station if it has reason to believe that the aircraft station is keeping watch and is within the prescribed operational ~~service~~ area of the aeronautical station.

CAN/25/337

ADD 3794.1 Designated operational coverage is that volume of airspace
3795.1 needed operationally in order to provide a particular service and within which the facility is afforded frequency protection by an allotment plan or by co-ordination between concerned and affected Administrations.

USA/24/504
J/60/466

ADD 3795.1 ¹Designated operational coverage is that volume of airspace needed operationally in order to provide a particular service and within which the facility is afforded frequency protection.

CEPT-9/16/40
MCD 3796

§ 3. When an aeronautical station receives calls from several aircraft stations at practically the same time, it decides the order in which these stations may transmit their traffic. Its decision shall be based on the priority in Article 51 (see No. 3651) of the radiotelegrams or radiotelephone calls that aircraft stations have on hand and on the need for allowing each calling station to clear the greatest possible number of communications.

USA/24/505
CAN/25/338
AUS/40/393
J/60/467
PRG/61/126
URS/32/64

MOD 3796 When an aeronautical station receives calls from several aircraft stations at practically the same time, it decides the order in which these stations may transmit their traffic. Its decision shall be based on the priority in Article 51. ~~(see No. 3651) of the radiotelegrams or radiotelephone calls that aircraft stations have on hand and on the need for allowing each calling station to clear the greatest possible number of communications.~~

CEPT-9/16/41
CAN/25/339

MOD 3797 ~~§ 4. (1) When a station called does not reply to a call sent three times at intervals of two minutes, the calling shall cease and shall not be renewed until after an interval of fifteen minutes. Before initiating a call, the calling station shall ascertain that the station called is not in communication with another station.~~

USA/24/506
URS/32/65
AUS/40/394
J/60/468
PRG/61/127

SUP 3797

AUS/40/395
URS/32/66

ADD 3797A Before initiating a call, the calling station shall ascertain that the station called is not in communication with another station.

CEPT-9/16/42
CAN/25/340

MOD 3798 ~~(2) Before renewing the call, the calling station shall ascertain that the station called is not in communication with another station. When a call has been made to an aeronautical station, a period of at least 10 seconds should elapse before a subsequent call is made.~~

USA/24/507
J/60/469
PRG/61/128

MOD 3798 4. (2) Before renewing the initiating a call, the calling station shall ascertain that the station called is not in communication with another station.

AUS/40/396
URS/32/67
SUP 3798

USA/24/508
AUS/40/397
J/60/470
URS/32/68

ADD 3798A When a call has been made to an aeronautical station, a period of at least 10 seconds should elapse before a subsequent call is made.

CEPT-9/16/43
USA/24/509
CAN/25/341
URS/32/69
AUS/40/398
J/60/471
PRG/61/129
SUP 3799

PRG/61/130
SUP 3800

URS/32/70
CAN/25/342
NOC 3800

PRG/61/130
URS/32/70
SUP 3801

CAN/25/342
NOC 3801

CEPT-9/16/44
USA/24/510
CAN/25/342
AUS/40/399
J/60/472
PRG/61/130
URS/32/71
SUP 3802-3805

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION

WARC FOR THE MOBILE SERVICES

GENEVA, September-October 1987

Document DL/23 (Rev.1)-E

25 September 1987

Original: English

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a revised consolidated document concerning the structure of Article 60.

R. SWANSON

Chairman of Working Group 6-A

Attachment: 1

COORDINATED STRUCTURE OF ARTICLE 60

Special Rules Relating to the Use
of Frequencies in the Maritime Mobile Service

SECTION I. GENERAL PROVISIONS

- A. Single-Sideband Morse Radiotelegraph Transmissions
 - MOD A. Single-Sideband Radiotelegraph Transmissions [24]
- B. Bands Between 415 kHz and 535 kHz
- C. Bands Between 1605 kHz and 4000 kHz
- D. Bands Between 4000 kHz and 27500 kHz
- E. Bands Between 156 MHz and 174 MHz

SECTION II. USE OF FREQUENCIES FOR MORSE RADIOTELEGRAPHY

- A. General
- B. Bands Between 415 kHz and 535 kHz
 - B1. Call and Reply
 - B2. Traffic
- C. Bands Between 1605 kHz and 4000 kHz
 - C1. Region 2
 - SUP C1. Region 2 [33]
 - C2. Additional Provisions Applicable in Region 3 Areas North of the Equator Only
 - MOD C1. Additional Provisions Applicable in Region 3 Areas North of the Equator Only [33]
- D. Bands Between 4000 kHz and 27500 kHz
 - D1. General
 - D2. Call and Reply
 - D3. Traffic
- E. Assignment of Frequencies to Ship Stations
 - E1. Calling Frequencies of Ship Stations
 - E2. Working Frequencies of Ship Stations

SECTION III. USE OF FREQUENCIES FOR NARROW-BAND DIRECT-PRINTING TELEGRAPHY

- MOD Section III. Use of Frequencies for Narrow-Band Direct-Printing Telegraphy and Digital Selective Calling [33]
- A. General
- B. Bands Between 415 kHz and 535 kHz
- C. Bands Between 1605 kHz and 4000 kHz
- D. Bands Between 4000 kHz and 27500 kHz
- E. Bands Between 156 MHz and 174 MHz

ADD Section IIIA. Use of Frequencies for Wide-Band Telegraphy,
Facsimile, Special Transmission Systems and
Oceanographic Data Transmissions [33]

SECTION IV. USE OF FREQUENCIES FOR RADIOTELEPHONY

- A. General
- B. Bands Between 1605 kHz and 4000 kHz
 - B1. Mode of Operation of Stations
 - B2. Call and Reply
 - B3. Traffic
 - B4. Additional Provisions Applying to Region 1
- C. Bands between 4000 kHz and 23000 kHz
 - MOD C. Bands Between 4000 kHz and 27500 kHz [33, 36, 60]
 - MOD C. Bands Between 4000 kHz and 27000 kHz [57]
- C1. Mode of Operation of Stations
- C2. Call and Reply
- C3. Traffic
- D. Bands Between 156 MHz and 174 MHz
 - D1. Call and Reply
 - D2. Watch
 - D3. Traffic

ADD Section V. Use of Frequencies for Digital Selective Calling
[8, 42]

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

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WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning the structure of Article 60.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

COORDINATED STRUCTURE OF ARTICLE 60

A. Single-Sideband Morse Radiotelegraph Transmissions

MOD A. Single-Sideband Morse Radiotelegraph Transmissions [24]

C1. Region 2

SUP C1. Region 2 [33]

C2. Additional Provisions Applicable in Region 3 Areas North of the Equator Only

MOD C1. Additional Provisions Applicable in Region 3 Areas
North of the Equator Only [33]

E2. Working Frequencies of Ship Stations

SUP b) Working Frequencies for Ship Stations Using Wide-Band Telegraphy,
Facsimile and Special Transmission Systems [33]

SUP c) Working Frequencies for Oceanographic Data Stations [33, 60]

SUP d) Working Frequencies (paired with those in No. 4207) for Ship
Stations Using Narrow-Band Direct-Printing Telegraph and Data
Transmission Systems, at Speeds Not Exceeding 100 Bauds [33]

SUP e) Working Frequencies (non-paired) for Ship Stations Using NBDP
Telegraph and Data Transmission Systems, at Speeds Not
Exceeding 100 Bauds [33]

f) Working Frequencies for Ship Stations Using A1A Morse Telegraphy

MOD b) Working Frequencies for Ship Stations Using A1A Morse Telegraphy [33]

MOD f) Working frequencies for ship stations using A1A or A1B Morse
Telegraphy [36]

g) Abbreviations for the Indication of Working Frequencies

MOD c) Abbreviations for the Indications of Morse Radiotelegraphy Working
Frequencies [33]

SECTION III. USE OF FREQUENCIES FOR NARROW-BAND DIRECT-PRINTING TELEGRAPHY

MOD Section III. Use of Frequencies for Narrow-Band Direct-Printing
Telegraphy and Digital Selective Calling [33]

ADD Section IIIA. Use of Frequencies for Wide-Band Telegraphy, Facsimile,
Special Transmission Systems and Oceanographic Data
Transmissions [33]

SECTION IV. USE OF FREQUENCIES FOR RADIOTELEPHONY

C. Bands between 4000 kHz and 23000 kHz

MOD C. Bands Between 4000 kHz and 27500 kHz [33, 36, 60]

MOD C. Bands Between 4000 kHz and 27000 kHz [57]

ADD Section V. Use of Frequencies for Digital Selective Calling [8, 42]

WORKING GROUP 4-A

NOTE FROM THE CHAIRMAN OF WORKING GROUP 4-A

1. The following text cancels and replaces the proposal Nos. G/33/35-37, 39:

ADD 613B Additional allocation: In the United Kingdom, the band
161.3875 - 161.4125 MHz is also allocated to the Maritime
Radionavigation Service on a primary basis, subject to agreement
obtained under the procedure set forth in Article 14.
2. The text in Annex is a proposed modification to the Allocation Table (band
415 - 495 kHz) as agreed within the Sub-Working Group 4-A/2.

J. KARJALAINEN
Chairman of Working Group 4-A

Annex: 1

ANNEX

kHz

Allocation to Services			
	Region 1	Region 2	Region 3
MOD	415 - 435 AERONAUTICAL RADIONAVIGATION /MARITIME MOBILE/ 470 465	415 - 495 <u>435</u> MARITIME MOBILE 470 <u>469A</u> <u>469B</u>	MARITIME MOBILE 470 <u>/AERONAUTICAL RADIONAVIGATION/</u>
	435 - 495 MARITIME MOBILE Aeronautical Radionavigation 465 MOD 471 472A <u>470A</u> <u>470B</u>	<u>435</u> - 495 MARITIME MOBILE 470 <u>Aeronautical Radionavigation</u> <u>470A</u> <u>470B</u> 471 470A	

SUP 469

ADD 469A Additional Allocation: In the United States the band 415 - 435 kHz is also allocated to the aeronautical radio-navigation service on a primary basis.

ADD 469B Additional Allocation: In Canada the band 415 - 435 kHz is also allocated to the aeronautical radionavigation service on a secondary basis.

ADD 470A The use of the band 435 - 495 kHz by the aeronautical radionavigation service is limited to non-directional beacons not employing voice transmission.

ADD 470B Administrations shall take all practical steps necessary to ensure that aeronautical radionavigation stations in the 435 - 490 kHz band do not cause interference to coast station reception of ship stations transmitting on frequencies designated for ship stations on a world-wide basis (see No. 4237).

WORKING GROUP 5-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 5-A

ADD N 3172

The transmission of a distress alert indicates that mobile units and/or persons are in distress and require immediate assistance. The distress alert is a digital selective call using a distress call format in bands used for terrestrial radiocommunication or is a distress message format relayed through space stations.

In this connection, the following definition is proposed for inclusion in Article 1, Section V, Operational Terms.

"ADD 130A 5.22 Mobile Unit: A ship, aircraft or other vehicle."

U. HAMMERSCHMIDT
Chairman of Working Group 5-A

WORKING GROUP 6-B

Note by the Chairman of Working Group 6-B

DRAFT TERMS OF REFERENCE FOR SUB-WORKING GROUPS

SUB-WORKING GROUP 6-B-1

Aeronautical services

Articles:	44, 45, 46, 47, 48, 49, 51, 52, 53 (Chapter X)
Appendix:	26
Resolutions Nos.:	13, 405, 406, 407
Recommendations Nos.:	7, 405, 604*

SUB-WORKING GROUP 6-B-2

Radiodetermination services

Articles:	26, 35
Appendix:	41
Resolution No.:	600
Recommendations Nos.:	600*, 601

Land mobile services

Articles:	67, 68
-----------	--------

Miscellaneous

Articles:	1, 19, 24, 25
Appendices:	10, 13, 42
Resolutions Nos.:	12, 202
Recommendations Nos.:	8, 204*

Y. HIRATA
Chairman of Working Group 6-B

* Secondary responsibility.

WORKING GROUP 4-C

MODIFICATIONS TO THE LIST OF BASIC PRINCIPLES
CONTAINED IN DOCUMENT DT/16

- 6(Rev.) To reduce the number of exclusive ship stations working frequencies for A1A and A1B Morse telegraphy under the condition that the possibilities for an administration for using A1A and A1B Morse telegraphy working frequencies are not reduced (see points 9 and 19).
- ADD 6A. The reduction of the exclusive sub-bands for ship stations for A1A and A1B Morse working frequencies should not be implemented in steps.
- 10(Rev.) To make every effort to retain unchanged the frequencies for use in the GMDSS for DSC, NBDP and SSB radiotelegraphy.

A.R. VISSER
Chairman of Working Group 4-C

WORKING GROUP 6-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-B

In order to assist Working Group 6-B, attached is a consolidated document concerning proposals on Article 35, Resolution No. 600, Recommendations Nos. 600 and 601 which are related to radiodetermination services and Articles 67 and 68 which are related to land mobile services.

Y. HIRATA
Chairman of Working Group 6-B

Annex: 1

ANNEX

ARTICLE 35

G NOC Radiodetermination Service
and Radiodetermination-Satellite Service

Section I. General Provisions

AUS/40/56

MOD 2832 In the case of doubtful or unreliable observations, the station taking the bearing or fixing the position shall, whenever possible, notify the station, or the responsible authority in the case of space services, to which this information is given of any such doubt or unreliability.

Reason: To cater for the radiodetermination-satellite service.

Section II. Provisions for the
Radiodetermination-Satellite Service

ARG/5/20

ADD 2838A

The radiodetermination-satellite service provides information on position and determination and can also supply additional information on movements and safety.

Reason: The radiodetermination-satellite service has recently undergone rapid development and has many applications which can be used by the mobile services.

PHL/77/15

ADD 2838A

The radiodetermination-satellite service shall provide information on position determination and reporting, and auxiliary information related to movement and safety.

Reasons: The advent of advance technology in the radiodetermination-satellite service has provided multiple applications to mobile services.

AUS/40/57

ADD

2838A 1. A radiodetermination-satellite service may also provide services for reporting and the communication of ancillary information related to movement and safety.

Reason: To delineate the ancillary services that may be included in the radiodetermination-satellite service.

USA/24/126

ADD 2838A The radiodetermination-satellite service provides position determination and reporting, and may also provide ancillary information related to movement and safety.

Reason: The Radio Regulations should be updated to recognize new needs. In recent years, the radiodetermination-satellite service has emerged with the potential for multiple applications to mobile services. This addition to the Regulations is to accommodate administrations wishing to implement such applications and, in general terms, outlines the services to be provided.

ARG/5/21

ADD 2838B The provisions of Nos. 2831 to 2838 shall apply to the radiodetermination-satellite service but not Nos. 2839 and 2840.

Reason: To ensure that the provisions of section I of Article 35 also apply to the radiodetermination-satellite service. Also to recognize the exceptions relating to the maritime radionavigation-satellite and the aeronautical radionavigation-satellite service.

PHL/77/16

ADD 2838B Except as provided in Nos. 2839 and 2840, the provisions of Nos. 2831 to 2838 shall apply to the radiodetermination-satellite service.

Reasons: To ensure that the provisions of Section I of Article 35 is also applicable to the radiodetermination-satellite service and to recognize the exceptions provided to the maritime and aeronautical radionavigation-satellite services.

TUR/59/9

USA/24/127

ADD 2838B Except as provided in Nos. 2839 and 2840, the provisions of Nos. 2831 to 2838 shall be applied to the radiodetermination-satellite service.

Reason: To make the provisions of Section I of Article 35 also applicable to the radiodetermination-satellite service. Additionally, to recognize the exceptions provided to the maritime and aeronautical radionavigation-satellite services.

AUS/40/58

MOD 2839 ~~-(1)-~~ (2) The provisions of Nos. 2831 to 2838 excluding ~~No. 2832-~~ shall be applied to the maritime-radionavigation-satellite radiodetermination-satellite service.

Reason: To apply uniform regulations to both the radiodetermination service and radiodetermination-satellite service.

AUS/40/59

MOD 2840 ~~-(2)-~~ (3) The provisions of Nos. 2831 to 2838 excluding ~~Nos. 2832 and No. 2833~~ shall be applied to the aeronautical radionavigation-satellite service.

Reason: Consequential to ADD No. 2838A.

Section III. Radio Direction-Finding Stations

G/33/23

ADD 2842A (2A) Where a radio direction-finding service is provided in the authorized bands between 156.0 MHz and 174.0 MHz, the radio direction-finding stations should be able to take bearings on the VHF distress and calling frequency 156.8 MHz.

Reason: To provide for radio direction-finding on 156.8 MHz.

PHL/77/17

ADD 2842A (2A) Where a radio direction-finding service is provided in the authorized bands between 156.0 MHz and 174.0 MHz, the radio direction-finding stations should be able to take bearings on the VHF distress and calling frequency 156.8 MHz.

Reasons: To allow radio direction-finding on VHF distress and calling frequency.

G

NOC

To the remainder of the provisions in this Article.

RESOLUTION No. 600

Relating to the Use for the Radionavigation Service
of the Frequency Bands 2 900 - 3 100 MHz, 5 470 - 5 650 MHz,
9 200 - 9 300 MHz, 9 300 - 9 500 MHz, and 9 500 - 9 800 MHz

BFA/120/2

SUP

Reasons: No longer valid.

CUB/98/262

SUP

Reasons: Resolves 1 and 2 of this Resolution have been completed and it is hoped that the Conference will appropriately revise the footnotes of Article 8 referring to these frequency bands.

DDR/7/65

SUP

Reason: After consideration of Resolution No. 600 by the Conference, this Resolution is no longer required

G/33/364

MOD

The World Administrative Radio Conference for the Mobile Services, Geneva, 1972-1987

G/33/365

MOD

Considering

a) that this Conference development of ~~shipborne transponders~~ 9300 MHz search and rescue transponders in the maritime radionavigation service in the frequency band 9300 MHz to 9500 MHz.

Reason: to update

USA/24/778
SUP

Reason: This Resolution was written by the 79 WARC consequential to the adoption of provisions for the development of shipborne transponders in the frequency bands 2930-2950 MHz, 5470-5480 MHz and 9280-9300 MHz, and the resultant increased demands made in these bands upon the radionavigation service. It resolved that the next competent conference shall review footnotes to these bands and propose changes and, in addition, that the CCIR shall continue to consider technical factors and make Recommendations. We have reviewed footnotes to these bands and are proposing changes to bring the Radio Regulations up to date to reflect current use for the radionavigation service of shipborne transponders and radar beacons. The CCIR, on their part, has adopted a question on the use of these bands and made Recommendations for characteristics of radar beacons (racons) and shipborne interrogator transponders. Since all resolves of Resolution 600 have been fully addressed it should be deleted.

CTI/86/88
SUP

Reasons: The Resolution is on the agenda of the Conference, which will have to adopt appropriate provisions in the light of the work of the CCIR and on the basis of administrations' proposals.

RECOMMENDATION No. 600

Relating to the Use of the Frequency Band 9 300 - 9 500 MHz ^{1,2}

AUS/40/592
#NOC

Reason: To continue to encourage administrations, ICAO and IMO to be alert to the possibility of interference in the 9300-9500 MHz band.

BFA/120/3
SUP

Reasons: No longer valid.

CAN/25/471
NOC

Reasons: The purpose of this Recommendation is still valid.

CUB/98/279
NOC

Reasons: Still valid for the purpose of continuing to monitor the possibility of interference in the band 9 300 - 9 500 MHz.

G/33/412
MOD The World Administrative Radio Conference for the Mobile Services, Geneva, -1979-1987
noting

G/33/413
MOD g) that in the band ... with a view to facilitating----in-
this-band-avoiding interference to aeronautical radar beacons;

G/33/414
SUP h)

Reason: Consequential to ADD 825A, 825B and 825C.

USA/24/811
SUP

Reason: This Recommendation was drawn up by the 79 WARC out of concern for the increased use and possibility of interference in the band 9300-9500 MHz. ICAO and IMO were asked to investigate interference aspects and the possibility of reducing such interference. The development of effective radar interference rejection circuitry, such as that described in CCIR Report 914, has allowed a large degree of sharing among the radiolocation, maritime radionavigation, aeronautical radionavigation and meteorological services in the band. Additionally, CCIR Recommendations have been completed on characteristics of radar beacons and shipborne interrogator transponders. Since the purpose of the Recommendation has been fully addressed, it should be suppressed.

RECOMMENDATION No. 601

Concerning the Matter of Providing a Suitable Frequency
Allocation for a Collision Avoidance System
in the Aeronautical Radionavigation Service¹

CAN/25/471
NOC

CUB/98/280
NOC

Reasons: To continue studying which frequencies should be used for this system.

AUS/40/451

G/33/415

USA/24/812
NOC

Reason: While international agreement is being considered for the use of 1030-1090 MHz for such a collision avoidance system, the use of other bands should not be entirely ruled out.

DDR/7/87
NOC

Reason: The provisions of Recommendation No. 601 are used further on.

KEN/58/26
NOC

REASON:

The provisions of Recommendation No. 601 are still needed.

ARTICLE 67

CHAPTER XII

Land Mobile Service

ARG/5/87
PHL/77/91
PRG/61/131
TUR/59/65
URS/32/131
USA/24/618

MOD

Land Mobile Service and
Land Mobile-Satellite Service

ARTICLE 67

ARG/5/88
PHL/77/92
TUR/59/66
USA/24/619

MOD

Conditions to be Observed by Mobile Stations in the
Land Mobile Service and by Stations in the
Land Mobile-Satellite Service.

PRG/61/132
MOD

Conditions to Be Observed by Mobile Stations in the
Land Mobile Service and the Land Mobile Satellite Service

URS/32/132
MOD

Section I. Conditions to be Observed by Mobile
Stations in the Land Mobile Service

ARG/5/89
PHL/77/93
TUR/59/67
USA/24/620

ADD

Section I. Land Mobile Service

TUR

NOC 5128-5133

Reasons: To retain imported provisions of the RR.

ARG

PHL/77/94

USA/24/621
NOC

5128 - 5133

PRG/61/133

MOD 5128

Land mobile stations and earth stations of the land mobile-satellite service shall be established in such a way as to conform to the provisions of Chapter III as regards frequencies and classes of emission.

Reasons: To make applicable to the land mobile-satellite service.

PRB/61/134

MOD 5129

The frequencies of emission of land mobile stations and earth stations shall be checked as often as possible by the inspection service to which these stations are subject.

Reasons: To make applicable to the land mobile-satellite service.

PRG/61/135

NOC 5130 and 5131

Reasons: Useful provisions.

PRG/61/136

SUP 5132 and 5133

Reasons: The conditions required by Nos. 5132 and 5133 are nowadays normally met.

ARG/5/90
PHL/77/95
TUR/59/68
USA/24/622

ADD

Section II. Land Mobile-Satellite Service

URS/32/133

ADD

Section II. Conditions to be Observed by Mobile Earth Stations in the Land Mobile-Satellite Service

ARG/5/91

ADD 5134

When earth stations are set up in the land mobile-satellite service, account shall be taken of the provisions of Chapter III as regards frequencies and classes of emission.

PHL/77/96

ADD 5134

Earth stations in the land mobile-satellite service shall be so established as to conform to the provisions of Chapter III as regards frequencies and classes of emissions.

TUR/59/69

USA/24/623

ADD

5134 Earth stations in the land mobile-satellite service shall be so established as to conform to the provisions of Chapter III as regards frequencies.

URS/32/134

ADD 5134

§ 6. Mobile earth stations in the land mobile-satellite service may communicate with stations in the maritime mobile-satellite and aeronautical mobile-satellite services. In such cases, they shall comply with the provisions of these Regulations relating to those services, and their use shall be subject to the agreement of the administrations concerned.

Reasons: To extend the provisions of Article 67 to cover the land mobile-satellite service and to enable stations in that service to communicate with stations in the other satellite services for specific important operational purposes.

ARG/5/92

ADD 5135

The inspection service responsible for each earth station shall verify the transmission frequencies of these stations as frequently as possible.

PHL/77/97

ADD 5135

The inspection service responsible for each earth station shall verify as often as possible the transmission frequencies of these stations.

USA/24/624

TUR/59/70

ADD 5135

The frequencies of emissions of these earth stations shall be checked as often as practicable by the inspection service to which these stations are subject.

ARG/5/93

ADD 5136

The energy radiated by receiving equipment shall be as low as possible and shall not cause harmful interference to other stations.

PHL/77/98

ADD 5136

The energy radiated by the receiving equipment shall be maintained to the lowest practicable value and shall not cause harmful interference to other stations.

TUR/59/71
ADD 5136

The energy radiated by the receiving apparatus shall be reduced to the lowest practicable value and shall not cause harmful interference to other stations.

Reason : To extend the provision of Article 67 to the Land Mobile-Satellite Service and to add provisions similar to those applicable to other mobile satellite services.

USA/24/625
ADD

5136 The energy radiated by the receiving apparatus shall be reduced to the lowest practicable value and shall not cause harmful interference to other stations.

ARG/5/94
ADD 5137

Administrations shall take all practical steps necessary to ensure that the operation of electrical or electronic equipment of any type which is installed in land mobile stations does not cause harmful interference to the essential radio services of land mobile stations operating in accordance with the provisions of these Regulations.

Reason: To include the land mobile-satellite service in this Article.

PHL/77/99
ADD 5137

Administrations shall take all practicable steps necessary to ensure that the operation of electrical or electronic equipment of any type which is installed in these earth stations does not cause harmful interference to the essential radio services of land mobile stations which are operating in accordance with the provisions of these Regulations.

Reasons: To make applicable to the land mobile-satellite service.

USA/24/626
ADD

5137 Administrations shall take all practicable steps necessary to ensure that the operation of any electrical apparatus installed in these earth stations does not cause harmful interference to the essential radio services of stations which are operating in accordance with the provisions of these Regulations.

Reason: To extend the provision of Article 67 to the LMSS and to add provisions similar to those applicable to other mobile satellite services.

ARTICLE 68

General Radiotelephone Procedure
in the Land Mobile Service — Calls

USA/24/627
ADD
USA/24/628
ADD

CHAPTER XII A

Mobile-Satellite Service

USA/24/629
ADD
USA/24/630
ADD

Article 68 A

Conditions to Be Observed by Mobile Stations
in the Mobile-Satellite Service

USA/24/631
ADD

5170 Mobile earth stations shall be so established as to conform to the provisions of Chapter III as regards frequencies.

USA/24/632
ADD

5171 The frequencies of emissions of mobile earth stations shall be checked as often as practicable by the inspection service to which these stations are subject.

USA/24/633
ADD

5172 The energy radiated by the receiving apparatus shall be reduced to the lowest practicable value and shall not cause harmful interference to other stations.

USA/24/634
ADD

5173 Administrations shall take all practicable steps necessary to ensure that the operation of any electrical or electronic apparatus installed in mobile earth stations does not cause harmful interference to the essential radio services of stations which are operating in accordance with the provisions of these Regulations.

Reason: To provide for the mobile-satellite service and to add provisions for mobile earth stations operating in that service.

WORKING GROUP 4-A

Note from the Chairman of Working Group 4-A

COORDINATED PROPOSALS FOR THE BAND 90 - 110 kHz

Allocation to Services		
Region 1	Region 2	Region 3
90 - 110	RADIONAVIGATION 453	
	Fixed	
	Maritime Mobile 448	
	454	448A

MOD 448

The use of the bands 14 - 19.95 kHz, 20.05 - 70 kHz and 70 - 90 kHz (72 - 84 kHz and 86 - 90 kHz in Region 1) ~~and 90 - 100 kHz~~ by the maritime mobile service is limited to coast radiotelegraph stations (A1A and F1B only). Exceptionally, the use of class J2B or J7B emissions is authorized subject to the necessary bandwidth not exceeding that normally used for class A1A or F1B emissions in the band concerned.

ADD 448A

Additional allocation: in the United Kingdom the band 90 - 110 kHz is also allocated to the maritime mobile service on a secondary basis for coast radiotelegraph stations.

J. KARJALAINEN
 Chairman of Working Group 4-A

WORKING GROUP 5-A

REPORT OF AD HOC DRAFTING GROUP
(AUS, D, IMO)

- DT/1B
ADD ARTICLE N 39
- DT/1B
ADD Operational Procedures ~~for Automated Communications~~
for Distress and Safety System in GMDSS
- DT/1B
ADD Section I. General
- DT/1B
ADD N 3169 ~~Automated~~ Communications for distress and safety
situations rely on the use of terrestrial MF, HF and VHF
radiocommunications and communications using satellite
techniques.
- DT/1B
ADD N 3170 The distress alert (see No. N 3172) shall be sent
through a satellite either with absolute priority in general
communication channels or on exclusive distress and safety
frequencies or, alternatively, on the exclusive distress and
safety frequencies in the MF, HF and VHF bands using digital
selective calling.
- DT/1B
ADD N 3171 The distress alert (see No. N 3172) shall be sent only
on the authority of the person responsible or the ship, aircraft
or other vehicle carrying the mobile station or the ship earth
station.
- DT/1B
ADD N 3170A All stations which receive an alert transmitted by
digital selective calling shall immediately cease any transmission
capable of interfering with distress traffic and shall continue to
watch until the call has been acknowledged.
- DT/1B
ADD N 3171A Digital selective calling shall be in accordance with
the relevant CCIR Recommendations.

DT/1B

ADD

Section II. Distress Alerting

A. General

DT/1B

ADD N 3172

The transmission of a distress alert indicates that a ~~ship~~ mobile unit or person is in distress and requires immediate assistance. The distress alert is a digital selective call ~~using~~ in a distress call format in bands used for terrestrial radiocommunication or ~~is in~~ a distress message format when relayed through space stations.

DL/25

N 3172.1

Mobile Unit: A ship, aircraft or other vehicle.

N 3172.2

Distress calls and distress messages shall be formatted in accordance with the relevant CCIR Recommendations.

DT/1B

ADD N 3173

The distress alert shall contain¹ the identification of the ~~ship~~ station in distress and provide for its position.

DT/1B

ADD N 3173.1

The distress alert may also contain information regarding the nature of the distress, the type of assistance required, the course and speed of the ship, ~~and~~ the time that this information was recorded and any other information which might facilitate rescue.

R.M. HARRIS
Convenor

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/31-E
25 September 1987
Original : English

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Article 63.

R. SWANSON
Chairman of Working Group 6-A

Annex : 1

ARTICLE 63

G/33/224
MOD

General Morse Radiotelegraph
Procedure in the Maritime
Mobile Service

Reason: To indicate this Article relates to Morse telegraphy.

J/60/566

MOD

General Morse Radiotelegraph Procedure in the Maritime
Mobile Service

NOC

Section I. General Provisions

J/60/567

MOD 4710

1. The procedure detailed in this Article is ~~obligatory, except in cases of distress, urgency or safety, to which the provisions of Chapter IX are applicable,~~ also applicable to the distress and safety communications, without prejudice to the provisions of Chapter IX.

Reason: To clarify the application of this Article

NOC 4711 - 4712

NOC

Section II. Preliminary Operations

J/60/568

MOD 4713

4. (1) Before transmitting, a station shall take precautions to ensure that its emissions will not interfere with transmissions already in progress; if such interference is likely, the station shall await an appropriate break in the communications in progress. ~~This obligation does not apply to stations where unattended operation is possible through automatic means (see No. 3863) on frequencies dedicated to narrow band direct printing.~~

Reason: This article is not applicable to NBDP.

NOC 4714 - 4717

J/60/569

MOD

Section III. Calls by Morse Radiotelegraphy

NOC 4718

A. General

J/60/570

SUP

4719

§ 5. The provisions of this Section are not applicable to the maritime mobile-satellite service.

Reason: This article is not applicable to the maritime mobile-satellite service.

NOC 4720 - 4744

NOC 4745

B. Calls to Several Stations

J/60/571

SUP 4746

§ 13. The provisions of this Section are not applicable to the maritime mobile-satellite service.

Reason: See No. 4719

NOC 4747 - 4753

NOC

**Section IV. Method of Calling, Reply to Calls
and Signals Preparatory to Traffic**

NOC 4754 - 4786

NOC

Section V. Forwarding (Routing) of Traffic

NOC 4787 - 4801

NOC

Section VI. End of Traffic and Work

NOC 4802 - 4810

NOC

Section VII. Control of Working

NOC 4811 - 4813

NOC

Section VIII. Tests

NOC 4814 - 4815

NOC 4816
to
4840

NOT allocated.

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Article 62.

R. SWANSON
Chairman of Working Group 6-A

Annex : 1

ARTICLE 62

NOC

Selective Calling Procedure in the
Maritime Mobile Service

NOC

Section I. General

J/60/558

ADD 4665 1 The provisions of this Article are also applicable to
distress and safety communications, without prejudice
to the provisions of Chapter N IX.

Reason: To clarify the application of this Article.

NOC 4665A — 4666A
Mob-83 Mob-83

NOC

Section II. Sequential Single-Frequency Code System

NOC 4667

A. General

NOC 4668

USA/24/600
NOC

4668A § 2A. The sequential single-frequency code system may be in
Mob-83 operation until it is superseded by the digital selective calling
system referred to in Section III.

Reason: This provision should be retained as a positive
indication that the digital selective calling system will
be the standard system in the future.

NOC 4669

B. Method of Calling

NOC 4670 — 4674

NOC 4675

C. Reply to Calls

NOC 4676

J/60/559

MOD 4677 a) Nos. 4767 and 4769 when using Morse radiotelegraphy.

NOC 4678

NOC 4679

G/33/21A

MOD 4679A

4A. Selective calling may be carried out on:

a) the following calling frequencies:

500		kHz
2170.5		kHz
4125		kHz
4419.4	<u>4417</u>	kHz
6521.9	<u>6522</u>	kHz
8780.9	<u>8779</u>	kHz
13162.8	<u>13164</u>	kHz
17294.9	<u>17293</u>	kHz
19773		kHz
22658	<u>22765</u>	kHz
<u>26172</u>		<u>kHz</u>
156.8		MHz ¹

Reason: Consequential upon ADD Appendix 31A.

J/60/560

MOD 4679A 4A. Selective calling may be carried out on:

a) the following calling frequencies:

500	kHz
2170.5	kHz
4125	kHz
<u>4411</u>	<u>4419.4</u> kHz
<u>6510</u>	<u>6521.9</u> kHz
<u>8782</u>	<u>8780.9</u> kHz
<u>13197</u>	<u>13162.8</u> kHz
<u>17392</u>	<u>17294.9</u> kHz
<u>19767</u>	kHz
<u>22735</u>	<u>22658</u> kHz
<u>26136</u>	kHz
156.8	MHz ¹

Reason: Consequential to rearrangement of Maritime HF Bands.

NOC 4679A.1 — 4680
Mob-83 Mob-83

NOC

Section III. Digital Selective Calling System

E/42/82

ADD 4680A

A. General

DNK/FNL/ISL/NOR/S/8/70

MOD 4681

E/42/83

§ 6 A digital selective calling system may be used if it is in full conformity with the provisions of Appendix 39 B. The technical characteristics of equipment used for digital selective calling shall be in conformity with the relevant CCIR Recommendations in which all operational, technical and compatibility aspects which might be involved have been taken into account.

Reasons: Consequential to the proposals regarding inclusion of the procedures given below.

J/60/561

MOD 4681

6. A digital selective calling system shall be operated in accordance with the provisions of Appendix 39 B. The technical characteristics of equipment used for digital selective calling shall be in conformity with the relevant CCIR Recommendations in which all operational, technical and compatibility aspects which might be involved have been taken into account.

Reason: To provide the operational procedure for DSC in Appendix 39B.

CAN/25/396 *

MOD 4681A The frequencies used for distress and safety purposes using
J/60/562** digital selective calling are as follows (see also Article 38):
MOD

~~490~~ --- kHz (~~shore-to-ship~~)²
2187.5 kHz
4188 kHz
6282 kHz
8375 kHz
12563 kHz
16750 kHz
156.525 kHz MHz

* Reason: To take account of the lack of requirement for 490 kHz for shore-to-ship DSC and to make it available for NAVTEX-like transmissions as proposed in ADD N 2968. Also, regarding 156.525 MHz, to effect a necessary modification.

* Reason: Owing to the rearrangement of Maritime HF Bands and no need of using 490 kHz for DSC in GMDSS.

G/33/215

MOD 4681A

6A. The frequencies used for distress and safety purposes using digital selective calling are as follows (see also Article 38 N38):

~~490~~ ----- kHz (~~shore-to-ship~~)²
2187.5 kHz
4188 kHz
6282 kHz
8375 kHz
12563 kHz
16750 kHz
156.525 kHz MHz¹

CAN/25/397
SUP

4681A.1
Mob-83

² See also Resolution 206 (Mob-83).

Reason: Consequential to the above proposal for 4681A.

G/33/216 *

SUP 4681A.1

J/60/563
SUP

* Reason: MOD 4681A and SUP 4681A.1. 490 kHz not now required for this purpose; it is proposed that these frequencies should be transferred from Article 38 to Article N38; 156.525 incorrectly shown as 'kHz'.

G/33/217

ADD 4681A.2

¹ In addition to its use for distress and safety purposes, the frequency 156.525 MHz may also be used for other digital selective calling purposes.

Reason: To provide for the additional use of this frequency.

G/33/218

MOD 4682

7. The frequencies assignable on an international basis to ship and coast stations for digital selective calling, for purposes other than distress and safety, are as follows:

URS/32/123

MOD 4682

§ 7. The international frequencies for general use assignable to ship and coast stations for digital selective calling, for purposes other than distress and safety, are as follows:

Reasons: To clarify the status of the DSC frequencies specified in Nos. 4683 and 4684.

ARG/5/72
MOD 4683
PHL/77/77
MOD
USA/24/601
MOD

MOB-87/DL/32-E

a) Ship stations

2 189.5 kHz
4 187.5 kHz
6 281.5 kHz
8 375.5 kHz
12 562 kHz
12 562.5 kHz
16 750.5 kHz
16 751 kHz
22 248 kHz
22 248.5 kHz

G/33/219

MOD 4683

a) Ship stations

4187.5 - 458.5 kHz
6281.5-kHz
8375.5 - 2189.5 kHz
12562.5-kHz
16750.5-kHz - those specified in Table E of
16751-kHz Appendix 31A
22248-kHz
22248.5-kHz - 156.525 MHz¹

J/60/564

MOD 4683

a) Ship stations

2189.5 kHz
4194.5 kHz - 4187.5 kHz
4195 kHz
4195.5 kHz
6294.5 kHz - 6281.5 kHz
6295 kHz
6295.5 kHz
8361.5 kHz - 8375.5 kHz
8362 kHz
8362.5 kHz
8363 kHz
12526.5 kHz - 12562 kHz
12527 kHz - 12562.5 kHz
12527.5 kHz

16712.5 kHz - 16750.5 kHz
16713 kHz - 16751 kHz
16713.5 kHz
18899 kHz
18899.5 kHz
22332.5 kHz - 22248 kHz
22333 kHz - 22248.5 kHz
22333.5 kHz
25192.5 kHz
25193 kHz
25193.5 kHz

URS/32/124

MOD 4683

a) Ship stations

4 175.5 kHz
6 321 kHz
8 353 kHz
12 587.5 kHz
12 588 kHz
16 819 kHz
16 819.5 kHz
18 899 kHz
18 899.5 kHz
22 369.5 kHz
22 370 kHz
25 209 kHz
25 209.5 kHz

ARG/5/73
PHL/77/73
USA/24/602
MOD

4684 b) Coast stations

2189.5 kHz
4357.0 kHz
6506.0 kHz
8718.5 kHz
13100.0 kHz
13100.5 kHz
17232.0 kHz
17232.5 kHz
22595.0 kHz
22595.5 kHz

Reason: To provide for a DSC frequency for routine (non-distress) calling consistent with the results of CCIR studies reflected in CCIR Report 1029.

G/33/220
MOD 4684

b) Coast stations

~~4357~~ - 455.5 kHz
~~6506~~ kHz
~~8718.5~~ - 2177 kHz
~~13100~~ kHz
~~13100.5~~ kHz - those specified in Table E of
~~17232~~ kHz Appendix 31A
~~17232.5~~ kHz
~~22595~~ kHz - 156.525 MHz²
~~22595.5~~ kHz

G/33/221
ADD 4683.1)
4684.1)

^{1,2} 156.525 MHz is also used for distress and safety purposes (see No. 4681A.2).

Reason: MOD 4682, 4683 and 4684 and ADD 4683.1 and 4684.1. To specify the frequencies for DSC for international purposes.

J/60/565

MOD 4684 b) Coast stations

2189.5 kHz
4350 kHz ~~4357 kHz~~
4350.5 kHz
6494 kHz ~~6506 kHz~~
6494.5 kHz
8717.5 kHz ~~8718.5 kHz~~
8718 kHz
8718.5 kHz
13033.5 kHz ~~13100 kHz~~
13034 kHz ~~13100.5 kHz~~
13034.5 kHz
17229 kHz ~~17232 kHz~~
17229.5 kHz ~~17232.5 kHz~~
19751 kHz
19751.5 kHz
22674 kHz ~~22595 kHz~~
22674.5 kHz ~~22595.5 kHz~~
26120 kHz
26120.5 kHz

Reason: Consequential to the rearrangement of Maritime HF bands and our proposal to use the frequency 2189.5 kHz for the DSC in 2 MHz band for the general purpose.

URS/32/125
MOD 4684

b) Coast stations

4 357	<u>4 350.5 kHz</u>
6 506	<u>6 509.5 kHz</u>
8 718.5	<u>8 706.5 kHz</u>
13 100	<u>13 094 kHz</u>
13 100.5	<u>13 094.5 kHz</u>
17 232	<u>17 274 kHz</u>
17 232.5	<u>17 274.5 kHz</u>
22 595	<u>19 760 kHz</u>
22 595.5	<u>19 760.5 kHz</u>
	<u>22 722 kHz</u>
	<u>22 722.5 kHz</u>
	<u>26 135 kHz</u>
	<u>26 135.5 kHz</u>

G/33/222
MOD 4685

8. In addition to the frequencies listed in Nos. 4683 and 4684, appropriate working frequencies in the following bands may be used for digital selective calling:

415	-	526.5 kHz	(Regions 1 ¹ and 3)
415	-	525 kHz	(Region 2)
1606.5	-	4000 kHz	(Regions 1 ² and 3)
1605*	-	4000 kHz	(Region 2)
4000	-	27500 kHz	(except in the bands listed referred to in Nos. 4197--4198, 4199 and 4201, 4196A, 4196B, 4196C and 4196E, and in the band 4000-4063 kHz)(see also Table E of Appendix 31A)

156 - 174 MHz

G/33/223
ADD 4685.1

¹ See also Table A of Appendix A.

G/33/223A
ADD 4685.2

² See also Table B of Appendix A.

Reason: MOD 4685, ADD 4685.1 and ADD 4685.2. To refer to Tables in Appendices A and 31A.

*For the band 1605-1625 kHz, see Nos. 480 and 481.

G/64/1
ADD 4685.3

In the frequency bands between 4000 kHz and 27,500 kHz authorised for ship-to-shore radio transmissions using radiotelephony, digital signals in conformity with relevant CCIR recommendations may be emitted when required for the purpose of operation of an automatic telephone system at a coast radio station. Such signals may be emitted by ship stations only when the coast station has been previously alerted by means of a digital selective call on an appropriate ship calling frequency.

Reason: Operational and technical necessity calls for the use of a DSC-type "polling" signal on maritime HF radiotelephony channels to indicate to a coast station that a ship is ready to use a working channel and that the coast station equipment can proceed with setting up an automatic call to a telephone subscriber. The routing information would have previously been passed as part of the initial call on a DSC calling channel. There is no carrier to provide a "ready signal" on the J3E emissions used on maritime HF telephony channels.

Note 1. The number 4685.3 is chosen because the paragraph is foreseen as a footnote to the paragraph MOD 4685 in G/33/222 to which two previous footnotes (4685.1 and 4685.2) are proposed in G/33/223 and 224.

Note 2. See also draft Resolution Z annexed.

USA/24/603
MOD

4685 In addition to the frequencies listed in Nos. 4683 and 4684, appropriate working frequencies in the following bands may be used for digital selective calling:

415	-	526.5 kHz	(Regions 1 and 3)
415	-	525 kHz	(Region 2)
1606.5	-	4000 kHz	(Regions 1 and 3)
1605*	-	4000 kHz	(Region 2)
4000	-	27500 kHz	(except in the bands listed in Nos. 4197, 4198, 4199 and 4201, and in the band 4000-4063 kHz)
156	-	174 MHz	

*For the band 1605-1625 kHz, see Nos. 480 and 481.

Reason: To permit HF radiotelephone stations to use digital selective calling on their working frequencies. The number of frequencies in the present Radio Regulations available for digital selective calling for other than distress and safety are few. Severe congestion is anticipated if all HF radiotelephone coast and ship stations in the world are limited to use of these few frequencies for general calling. While there is some concern that use of digital selective calling on HF radiotelephone working frequencies might cause interference, this has not proven to be the case with SSFC and other systems currently in operation. Use of DSC on working frequencies already is permitted in other bands by No. 4685, and No. 4915 prescribes procedures to minimize the potential for interference.

G/64/2

ADD

RESOLUTION Z

Relating to Early Implementation of the Use of Special
Digital Signals on Maritime HF Radiotelephone
Channels for the Operation of Automatic
Telephone Systems

The World Administrative Conference for the Mobile Services,
Geneva, 1987,

considering

- a) that there is a requirement for ship stations when operating radiotelephony to be able to operate directly into automatic telephony systems;
- b) that this requirement necessitates the use of special digital signals to be emitted by a ship station on the same channel as is being used for radiotelephony;
- c) that as a general rule digital signals are not allowed to be emitted on maritime HF radiotelephony channels;
- d) that nevertheless this Conference has adopted a new provision ([4685.3]) permitting the use of digital signals to meet the requirement mentioned above;
- e) that it is probable that equipment capable of satisfying the requirement will be available before the date of implementation of the the Final Acts of the Conference;

resolves

that, with effect from 1 January 1988 on the maritime HF radiotelephony channels special digital signals may be emitted on ship working channels in accordance with Radio Regulation [4685.3].

Reasons: To provide for early implementation of the new provision of RR [4685.3] and thus to facilitate the operation of the radiotelephony element of the maritime mobile service.

DNK/FNL/ISL/NOR/S/8/71
ADD 4686 § 9

Method of Calling.

DNK/FNL/ISL/NOR/S/8/72
ADD 4686A

The procedures described in this section are applicable to calling using digital selective-calling techniques, except in cases of distress, urgency or safety, to which the provisions of Chapter N IX* are applicable.

Reasons: To describe the scope of this new sub-section.

DNK/FNL/ISL/NOR/S/8/73
ADD 4686B

The call shall contain information indicating to which station or stations the call is intended, and the identification of the calling station.

DNK/FNL/ISL/NOR/S/8/74
ADD 4686C

The call should also contain information indicating type of subsequent communication and may include supplementary information such as proposal for working frequency or channel.

DNK/FNL/ISL/NOR/S/8/75
ADD 4686D

The technical format of the call sequence shall be in conformity with the relevant CCIR Recommendations.

Reasons: To specify the information contained in a call.

DNK/FNL/ISL/NOR/S/8/76
ADD 4686E

The call shall be transmitted once on an appropriate calling channel.

DNK/FNL/ISL/NOR/S/8/77
ADD 4686F

When calling on MF or HF frequencies coast stations may transmit the call two times at the same calling frequency with an interval of at least 45 seconds between the two calls.

DNK/FNL/ISL/NOR/S/8/78
ADD 4686G

When calling on MF or HF national or group calling frequencies (see Appendix 31A)** coast stations may exceptionally transmit a call attempt consisting of up to five calls at the same frequency.

DNK/FNL/ISL/NOR/S/8/79
ADD 4686H

If the station called does not acknowledge the call, the call may be transmitted again on the same or another calling frequency after a period of at least five minutes (five seconds in automated VHF/UHF systems) and should then normally not be renewed until after a further interval of 15 minutes.

Reasons: To describe the procedure for transmission of calls. A group calling frequency is a calling frequency allotted to a group of countries.

* Note by the General Secretariat - Text published in IMO Document MSC/Circ.424 of 21 February 1987.

** See Document 20.

E/42/84

ADD 4686

B. Method of Calling

E/42/85

ADD 4686A

§ 9. (1) The procedures set out in this section are applicable to the use of digital selective calling techniques, except in cases of distress, urgency or safety, to which the provisions of Chapter NIX are applicable.

Reasons: To describe the scope of this new sub-section.

E/42/86

ADD 4686B

(2) The call shall contain information indicating to which station or stations the call is directed, and the identification of the calling station.

E/42/87

ADD 4686C

(3) The call should also contain information indicating the type of communication to be set up and may include supplementary information such as a proposed working frequency or channel, which shall always be included in the case of calls from coast stations, which shall have priority for that purpose.

E/42/88

ADD 4686D

(4) The technical format of the call sequence shall be in conformity with the relevant CCIR Recommendations.

Reasons: To specify the information to be contained in a call.

E/42/89

ADD 4686E

(5) The call shall be transmitted once on a single appropriate calling channel or frequency only. Only in exceptional circumstances may a call be transmitted simultaneously on more than one frequency.

E/42/90

ADD 4686F

(6) When calling ship stations, coast stations may transmit the call sequence twice at the same calling frequency, whichever it may be, with an interval of at least 45 seconds between the two calls, provided that they receive no acknowledgement within that interval.

E/42/91

ADD 4686G

(7) When calling on national frequencies in these bands or group calling frequencies (see Appendix 31A), coast stations may exceptionally transmit a call attempt consisting of up to five calls at the same frequency.

E/42/92

ADD 4686H

(8) If the coast station receives no reply, it may not repeat the call attempt until at least 30 minutes have elapsed; nor may it repeat it more than five times in 24 hours. In no event may the frequencies be occupied for a total of more than 1 minute.

E/42/93

ADD 4686I

(9) When initiating a call to a coast station, a ship station should preferably use the coast station's national calling frequencies, for which purpose it shall send a single calling sequence on the selected frequency.

DNK/FNL/ISL/NOR/S/8/80
ADD 4687 § 10 Acknowledgements of Calls

DNK/FNL/ISL/NOR/S/8/81
ADD 4688
A. Form and Content of Acknowledgements

DNK/FNL/ISL/NOR/S/8/82
ADD 4688A The reply to a digital selective call indicating that an acknowledgement is wanted, is made by transmitting an appropriate acknowledgement using digital selective-calling techniques.

DNK/FNL/ISL/NOR/S/8/83
ADD 4688B The technical format of the acknowledgement sequence shall be in conformity with the relevant CCIR Recommendations.

Reasons: To prescribe the techniques to be used for acknowledgement of a received digital selective call.

DNK/FNL/ISL/NOR/S/8/84
ADD 4688C If the station called is able to comply immediately on the proposed working frequency or channel, the station called should transmit an acknowledgement indicating this.

DNK/FNL/ISL/NOR/S/8/85
ADD 4688D If no working frequency or channel was proposed in the call, the station called should include a proposal for a working frequency or channel in its acknowledgement of the call.

Reasons: To specify the content of the acknowledgement in cases where the station called is able to comply immediately.

DNK/FNL/ISL/NOR/S/8/86
ADD 4688E If the station called is not able to comply immediately on the working frequency or channel proposed in the received call, the acknowledgement transmitted by the station called should include information indicating this and may also include supplementary information to this effect.

DNK/FNL/ISL/NOR/S/8/87
ADD 4688F Coast stations not able to comply immediately on a proposed working frequency or channel may include a proposal of an alternative working frequency or channel in the acknowledgement specified in No. 4688E.

Reasons: To specify the content of the acknowledgement in cases where the station called is not able to comply immediately.

E/42/94
ADD 4686J (10) If the ship station receives no reply, it may not repeat the call until 5 minutes have elapsed, in the case of access to a manual service of the coast station, or 5 seconds in the case of automated VHF systems; the call may be repeated on the same or on an alternative frequency.

E/42/95
ADD 4686K (11) If the ship station still receives no reply after repeating its call, it may not repeat the call again until at least 15 minutes have elapsed, on any of the frequencies on which the call may be made.

Reasons: To establish the procedure for transmission of calls. A group calling frequency is a calling frequency allotted to a group of countries.

E/42/96
ADD 4687 C. Acknowledgement of calls

E/42/97
ADD 4688 Cl. Content and transmission procedure of acknowledgements

E/42/98
ADD 4688A § 10. (1) The reply to a digital selective call requesting an acknowledgement shall be made by transmitting an appropriate acknowledgement using digital selective calling techniques.

E/42/99
ADD 4688B (2) Transmission of the calling signal shall cease as soon as an acknowledgement is received.

E/42/100
ADD 4688C (3) Acknowledgements may be manual or automatic. When an acknowledgement can be transmitted automatically, it shall be in conformity with the relevant CCIR Recommendations.

E/42/101
ADD 4688D (4) Acknowledgements shall normally be transmitted on the frequency paired with the frequency of the received call. If the same call is received on several calling channels, the most appropriate shall be chosen for transmission of the acknowledgement.

E/42/102
ADD 4688E (5) The technical format of the acknowledgement sequence shall be in conformity with the relevant CCIR Recommendations.

E/42/103
ADD 4688F (6) If the call includes a proposal for a working channel or frequency, which can be used immediately by the station called, the latter should transmit an acknowledgement indicating this possibility.

E/42/104
ADD 4688G (7) If, in the above case, the station called is not able immediately to use the working frequency or channel proposed in the received call, it should indicate this in its acknowledgement, which may also include supplementary information in that respect.

E/42/105
ADD 4688H (8) If the station called is a coast station, it may include a proposal for an alternative working frequency or channel in its acknowledgement.

E/42/106
ADD 4688I (9) If no working frequency or channel was proposed in the call, the station called should include a proposal for a working frequency or channel in its acknowledgement of the call.

Reasons: To specify the content and general transmission procedure of acknowledgements.

DNK/FNL/ISL/NOR/S/8/88
ADD 4689

B. Transmission of Acknowledgements

DNK/FNL/ISL/NOR/S/8/89
ADD 4689A

Acknowledgements shall normally be transmitted on the frequency paired with the frequency used for the call received. If the same call is received on more than one calling channel, a suitable channel among those should be chosen for transmission of the acknowledgement.

DNK/FNL/ISL/NOR/S/8/90
ADD 4689B

Acknowledgements may be initiated either manually or automatically. Where automatic transmission of acknowledgement takes place, this should be in conformity with the relevant CCIR Recommendations.

Reasons: Describes the procedure for choice of frequency for transmission of acknowledgements and initiation of the transmission.

DNK/FNL/ISL/NOR/S/8/91
ADD 4689C

If the ship station is unable to acknowledge a received call within a time limit of five minutes, the ship station's reply to the call should be made by transmitting a call in accordance with the provisions of No. 4686 to the calling station. Where automated or semi-automated systems are used, a time limit in accordance with the relevant Recommendations of the CCIR should apply.

Reasons: To describe the procedure to be used in the event that the ship station is unable to transmit an acknowledgement within a certain time limit.

E/42/107

ADD 4689

C2. Mode of transmission of acknowledgements

E/42/108

ADD 4689A

§ 11. (1) The acknowledgement of a call may be manual or automated.

E/42/109

ADD 4689B

(2) In a manually operated system, a ship station which receives a call including a request for acknowledgement, shall send the acknowledgement within 5 minutes of receiving the call sequence.

E/42/110

ADD 4689C

(3) If, in the above case, the ship station is unable to send an acknowledgement within the above 5-minute interval, it shall reply to the call by transmitting a call to the calling station in conformity with the provisions of No. 4686I.

E/42/111

ADD 4689D

(4) In a manually operated system, a coast station which receives a call including a request for acknowledgement, shall send the acknowledgement within an interval of not less than 5 seconds and not more than 4.5 minutes.

E/42/112

ADD 4689E

(5) If, in the above case, the coast station is unable to acknowledge within the above time limit, it shall reply to the call by transmitting a calling sequence to the calling station in conformity with the provisions of No. 4686F.

E/42/113

ADD 4689F

(6) In VHF automated or semi-automated operating systems, the acknowledgement of a call received by a ship station shall be transmitted within 2 seconds of the call being received.

E/42/114

ADD 4689G

(7) In VHF automated or semi-automated operating systems, the acknowledgement of a call received by a coast station shall be transmitted within 3 seconds of the call being received.

E/42/115

ADD 4689H

(8) In MF or HF automated or semi-automated operating systems, the acknowledgement shall be transmitted in conformity with the relevant CCIR Recommendations.

Reasons: To establish procedures for the transmission of acknowledgements according to the mode of operation.

DNK/FNL/ISL/NOR/S/8/92

ADD 4690 § 11 Reception of Acknowledgements and Preparation for Exchange of Traffic

DNK/FNL/ISL/NOR/S/8/93

ADD 4690A The procedures described in this sub-section are applicable for manual operation. Where automated or semi-automated digital selective-calling VHF/UHF systems are used, these should operate in conformity with relevant CCIR Recommendations.

Reasons: To describe the scope of this sub-section.

DNK/FNL/ISL/NOR/S/8/94

ADD 4690B After having transmitted an acknowledgement indicating able to comply on the proposed working frequency or channel, the station called transfers to the working frequency or channel and prepares for receiving the traffic.

DNK/FNL/ISL/NOR/S/8/95

ADD 4690C The calling station transfers to the working frequency or channel and prepares for transmitting the traffic.

DNK/FNL/ISL/NOR/S/8/96

ADD 4690D The calling station and the called station then exchange the traffic at the working frequency or channel concerned (see also No. 5069).

Reasons: To describe the general procedure for preparation for exchange of traffic.

DNK/FNL/ISL/NOR/S/8/97

ADD 4690E If the ship station is unable to comply on a working frequency or channel proposed in an acknowledgement transmitted by the coast station, the ship station should then transmit a new call in accordance with the provisions of No. 4686 indicating that it is unable to comply.

DNK/FNL/ISL/NOR/S/8/98

ADD 4690F The coast station should then transmit an acknowledgement indicating an alternative working frequency or channel.

DNK/FNL/ISL/NOR/S/8/99

ADD 4690G The operator of the ship station then applies the provisions of Nos. 4690C or 4690E as appropriate.

DNK/FNL/ISL/NOR/S/8/100

ADD 4690H For communication between a coast station and a ship station, the coast station shall finally decide the working frequency or channel to be used.

Reasons: To describe the procedure to be applied in cases where the working frequency or channel first proposed is not acceptable.

4691 to 4709 NOT allocated.

E/42/116

ADD 4690 D. Preparation for Exchange of Traffic

E/42/117

ADD 4690A § 11. (1) The procedures described in this sub-section are applicable for manual operation. Where automated or semi-automated digital selective calling VHF/UHF systems are used, these should operate in conformity with relevant CCIR Recommendations.

Reasons: To describe the scope of this sub-section.

E/42/118

ADD 4690B (2) After having transmitted an acknowledgement indicating that it can use the proposed working frequency or channel, the station called transfers to the working frequency or channel and prepares for receiving the traffic.

E/42/119

ADD 4690C (3) The calling station shall prepare for transmitting traffic on the working channel or frequency it has proposed.

E/42/120

ADD 4690D (4) The calling station and the called station shall then exchange traffic on the appropriate working frequency or channel (see also No. 5069).

Reasons: To establish the general procedure for preparation for exchange of traffic.

E/42/121

ADD 4690E (5) If the ship station is unable to use the working frequency or channel proposed in an acknowledgement transmitted by the coast station, the ship station should then transmit a new call in accordance with the provisions of Nos. 4686I to 4686K, indicating that it is unable to comply.

E/42/122

ADD 4690F (6) The coast station shall then transmit an acknowledgement indicating an alternative working frequency or channel.

E/42/123

ADD 4690G (7) On reception, the operator of the ship station shall then apply the provisions of Nos. 4690C or 4690E as appropriate.

E/42/124

ADD 4690H (8) For communication between a coast station and a ship station, the coast station shall finally decide the working frequency or channel to be used.

Reasons: To establish the procedure to be applied in cases where the working frequency or channel first proposed is not acceptable.

E/42/125

(MOD) 4686 4691 to 4709 NOT allocated.

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Article 64.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

ARTICLE 64

NOC **General Procedures for Narrow-Band
Direct-Printing Telegraphy in the
Maritime Mobile Service¹**

NOC **Section I. General**

NOC 4841

J/60/572

MOD 4842 § 2. ~~The procedures specified in the present provisions of~~
~~this Article are also applicable should be employed except in~~
~~cases of distress, urgency or safety to the distress and safety~~
~~communications, without prejudice to the provisions of~~
Chapter N IX.

Reasons: To apply the provision of this Article to the distress and safety communications without prejudice to the provisions of Chapter N IX.

J/60/573

ADD 4842A § 2A. Before transmitting, a station shall take precautions to ensure that its emissions will not interfere with transmissions already in progress; if such interference is likely, the station shall await an appropriate break in the communications in progress. This obligation does not apply to stations where unattended operation is possible through automatic means (see No. 3863).

Reasons: This Regulation is transferred from No. 4713.

NOC 4843-4847

NOC **Section II. Procedures for Manual Operation**

NOC 4848 A. General

NOC 4849

NOC A.64

NOC 4850 B. Ship to Coast Station

J/60/574

MOD 4851 § 7. (1) The operator of the ship station establishes communication with the coast station by AIA Morse telegraphy, telephony or by other means using normal calling procedures. The operator then requests direct-printing communication, exchanges information regarding the frequencies to be used and, when applicable, gives the ship station the direct-printing selective call number assigned in accordance with Appendix 38, or the ship station identity assigned in accordance with Appendix 43.

Reasons: To enable use of the maritime mobile service identities on the narrow band direct-printing system.

NOC 4852

J/60/575

MOD 4853 § 8. (1) Alternatively the operator of the ship station, using the direct-printing equipment, calls the coast station on a predetermined coast station receive frequency using the identification of the coast station assigned in accordance with Appendix 38, or the coast station identity assigned in accordance with Appendix 43.

Reasons: See No. 4851.

NOC 4854

NOC 4855 C. Coast Station to Ship

NOC 4856-4857

NOC 4858 D. Intership

J/60/576

MOD 4859 § 10. (1) The operator of the calling ship station establishes communication with the called ship station by AIA Morse telegraphy, telephony, or by other means, using normal calling procedures. The operator then requests direct-printing communication, exchanges information regarding the frequencies to be used and, when applicable, gives the direct-printing selective call number of the calling ship station assigned in accordance with Appendix 38, or the ship station identity assigned in accordance with Appendix 43.

Reasons: See No. 4851.

URS/32/126

MOD 4851)

URS/32/127)

MOD 4853)

URS/32/128)

MOD 4859)

In all of these provisions, as well as the reference to Appendix 38 insert an additional reference to Appendix 43.

Reasons: Introduction of 9-digit maritime mobile service identities.

NOC 4860

NOC Section III. Procedures for Automatic Operation

NOC 4861 A. Ship to Coast Station

J/60/577

MOD 4862 § 11. (1) The ship station calls the coast station on a predetermined coast station receive frequency, using the direct-printing equipment and the identification signal of the coast station assigned in accordance with Appendix 38, or the coast station identity assigned in accordance with Appendix 43.

Reasons: See No. 4851

NOC 4863

NOC 4864

B. Coast Station to Ship

J/60/578

MOD 4865 § 12. (1) The coast station calls the ship station on a predetermined coast station transmit frequency, using the direct-printing equipment and the ship station direct-printing selective call number assigned in accordance with Appendix 38, or the ship station identity assigned in accordance with Appendix 43.

Reasons: See No. 4851.

MOD 4862)

URS/32/130

MOD 4865)

In all of these provisions, as well as the reference to Appendix 38 insert an additional reference to Appendix 43.

Reasons: Introduction of 9-digit maritime mobile service identities.

NOC 4866-4868

NOC

Section IV. Message Format

NOC 4869-4872

G/33/225

MOD 4873 § 15. In the ship-to-shore direction, the message format should conform to ~~normal telex network practice with the addition of a preamble as follows:~~ the operational procedures specified in the relevant CCIR Recommendations.

G/33/226

SUP 4874-4875

Reasons: MOD 4873 and SUP 4874-4875. The preambles detailed in Nos. 4874 and 4875, together with operational procedures are now given in relevant CCIR Recommendations.

NOC

Section V. Procedures for Operation
in the Forward-Error-Correcting Mode

NOC 4876-4881

NOC 4882

to NOT allocated.
4902

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Corrigendum 2 to
Document DL/34-E
6 October 1987
Original: English

WORKING GROUP 6-A

Replace the proposals as regards the following items of
Document DL/34.

R. SWANSON
Chairman of Working Group 6-A

ARTICLE 65

Delete J/60/579: MOD 4903

Consequently show: NOC 4903

Delete G/33/228

SUP 4921 (Retain J/60/581)

Delete E/42/126

MOD 4969 § 17. (1) A ship ... accordance with [Section A of Table B of Appendix 16 31A Section A.]

MOD 4972 (4) The provisions ... specified in [Section B of Table B of Appendix 16, 31A Section-B.]

Delete G/33/233

MOD 4995 § 22 (1) A ship ... accordance with [Section A of Table B of Appendix 16 31A Section A.]

MOD 4999 (5) The provisions ... specified in [Section B of Table B of Appendix 16, 31A Section-B.]

New Section VIII.

E/42/130

ADD

**Section VIII. Calling, Acknowledgement of Calls, and
Subsequent Exchange of Traffic when Using Digital
Selective Calling Techniques**

E/42/131

ADD 5062

**A. Method of Calling and Frequencies to
be Used for Calling**

E/42/132

ADD 5063 § 37. (1) Calling by digital selective calling techniques shall be carried out in accordance with the provisions of Nos. 4686A to 4686H.

Reasons: To establish that radiotelephone stations shall follow the procedure prescribed in Nos. 4686A to 4686K when calling by digital selective-calling techniques.

E/42/133

ADD 5064

(2) An appropriate digital selective calling channel chosen in accordance with the provisions of Nos. 4419D to 4419H or Nos. 4420D to 4420H, as appropriate, shall be used for the call.

Reasons: To indicate that the call shall be made on an appropriate digital selective calling frequency, chosen in accordance with the provisions mentioned, as appropriate.

E/42/134
ADD 5065

B. Acknowledgement of Calls and Agreement on
the Frequency to be used for Traffic

E/42/135
ADD 5066

§ 38. (1) Acknowledgement of a received digital selective call and the exchange of information concerning the frequency to be used for traffic, should be carried out in accordance with the provisions of Nos. 4688A to 4690H.

E/42/136
ADD 5067

(2) When agreement regarding the working frequency or channel to be used for the exchange of traffic has been reached in accordance with the provisions of Nos. 4688A to 4690H, the two stations then transfer to the working frequency or channel agreed for the exchange of traffic.

Reasons: To indicate that the exchange of traffic shall be carried out on an appropriate working frequency.

E/42/137
ADD 5068

C. Forwarding of Traffic and
Control of Working

E/42/138
ADD 5069

§ 39. The forwarding of traffic and the control of working shall be carried out in accordance with the provisions of Nos. 5028 to 5054, No. 5056 and No. 5057.

Reasons: To prescribe the procedures for the forwarding of traffic.

E/42/139
MOD ~~5068~~ 5070 to 5084 NOT allocated.

WORKING GROUP 6-A

Replace the proposals as regards Nos. 4959-4967 as follows:

NOC 4959

MOD 4960

- c) ~~In Regions 1 and 3 and in Greenland, the carrier frequency 2 191 kHz (assigned frequency - - - 2 192.4 kHz) when a carrier frequency of 2 182 kHz is being used for distress. The carrier frequency~~
2 191 kHz as a supplementary calling frequency in those areas of heavy usage of 2 182 kHz and when 2 182 kHz is being used for distress and safety traffic.

NOC 4961 - 4963

MOD 4964

- (3) Subject to the provisions of No. 4967, coast stations shall, in accordance with the requirements of their own country, call ship stations of their own nationality either on a working frequency or, when calls to individual ships are made, on the carrier frequency 2 182 kHz or 2 191 kHz.

MOD 4965

- (4) However, a ship station which keeps watch simultaneously on the carrier frequency 2 182 kHz or 2 191 kHz and a working frequency should be called on the working frequency.

NOC 4966

NOC 4967

Reasons: To provide an alternate frequency to 2 182 kHz for calling purposes in congested areas.

R. SWANSON
Chairman of Working Group 6-A

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Article 65.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

ATTACHMENT

ARTICLE 65

NOC General Radiotelephone Procedure in the
 Maritime Mobile Service

NOC Section I. General Provisions

J/60/579

MOD 4903 § 1. The provisions ~~The procedure detailed~~ in this Article
~~is are applicable to radiotelephone stations, except in case of~~
~~distress, urgency or safety, to which the provisions of Chapter IX~~
~~are applicable.~~ communications for distress and safety, without
prejudice to the provisions of Chapters IX and N IX.

Reasons: To apply the provisions of this Article to the distress and
safety communications without prejudice to the provisions of Chapters IX
and N IX.

J/60/580

MOD 4904 § 2. (1) The service of ship radiotelephone stations shall be
performed or controlled by an operator satisfying the conditions
specified in Article 55.

Reasons: To conform this provision with No. 3861.

NOC 4905-4907

G/33/227

MOD 4908 (2) The use of devices for continuous or repetitive calling
or identification in a manually operated radiotelephony service is
not permitted.

Reasons: Consequential upon MOD 4326.

NOC 4909

F/48/3

MOD 4910 (4) A station shall not emit any carrier wave between
calls. However, stations in an automatically operated service may
emit marking signals under the conditions provided for in
No. 4326A.

G/33/228

MOD 4910 (4) A station providing a manually operated radiotelephony
service shall not emit any carrier wave between calls.

Reasons: As for MOD 4908.

NOC 4911-4914

NOC Section II. Preliminary Operations

NOC 4915-4919

NOC Section III. Calls by Radiotelephony

NOC 4920

J/60/581

SUP 4921

Reasons: The provision of this Article is not applicable to the maritime mobile-satellite service.

NOC 4922-4945

DNK/FNL/ISL/NOR/S/8/101

MOD Section IV. Method of Calling, Reply to Calls and
 Signals Preparatory to Traffic when Using Calling
 Methods Other than Digital Selective Calling

Reasons: Consequential to the proposed addition of a new Section VIII in this Article, dealing with calling, acknowledgement and forwarding of traffic when digital selective-calling techniques are used for the establishment of contact between two stations.

E/42/126

MOD Section IV. ~~Method of~~ Procedure for Calling, Reply to
 Calls and Signals Preparatory to Traffic when not
 Using Digital Selective Calling

Reasons: Consequential to the proposed addition of a new Section VIII in this Article, dealing with the corresponding procedure when digital selective calling techniques are used for the establishment of contact between two stations.

NOC 4946 A. Method of Calling

NOC 4947-4950

DNK/FNL/ISL/NOR/S/8/102

E/42/127

MOD 4951 When the coast station is fitted with equipment for selective calling in accordance with Section II of Article 62, and the ship station is fitted with equipment for receiving such selective calls, the coast station shall call the ship by transmitting the appropriate code signals. The ship station shall call the coast station by speech in the manner given in No. 4947 (see also Section II of Article 62).

Reasons: Consequential to the proposed addition of a new Section VIII concerning digital selective calling.

NOC 4952-4954

NOC 4955 B. Frequency to be Used for Calling
and for Preparatory Signals

NOC 4956-4958

ARG/5/74
PHL/77/79
USA/24/604

MOD 4959

b) the carrier frequency ~~2-182~~ 2 191 kHz;

ARG/5/75
PHL/77/80
USA/24/605

MOD 4960

c) ~~in Regions 1 and 3 and in Greenland, the carrier frequency 2 191 kHz (assigned frequency 2 192.4 kHz) when a carrier frequency of 2 182 kHz is being used for distress.~~ the carrier frequency 2 182 kHz;

NOC 4961

ARG/5/76
PHL/77/81
USA/24/606

ADD 4961A

a) the carrier frequency 2 191 kHz;

ARG/5/77
PHL/77/82
USA/24/607

(MOD) 4962

~~a)~~ b) the carrier frequency 2 182 kHz;

ARG/5/78
PHL/77/83
USA/24/608

(MOD) 4963

~~b)~~ c) an intership frequency, whenever and wherever traffic density is high and prior arrangements can be made.

ARG/5/79
PHL/77/84
USA/24/609

MOD 4964

(3) Subject to the provisions of No. 4967, coast stations shall, in accordance with the requirements of their own country, call ship stations of their own nationality either on a working frequency or, when calls to individual ships are made, on the carrier frequency 2 191 kHz or 2 182 kHz.

ARG/5/80
PHL/77/85
USA/24/610

MOD 4965

However, a ship station which keeps watch simultaneously on the carrier frequency 2 182 kHz or 2 191 kHz and a working frequency should be called on the working frequency.

ARG/5/81
PHL/77/86
USA/24/611

MOD 4966

As a general rule, coast stations should call radiotelephone ship stations of another nationality on the carrier frequency 2 191 kHz or 2 182 kHz.

Reasons: To provide for the addition of 2 191 kHz as a calling frequency in accordance with the existing regulations.

NOC 4967

G/33/229

MOD 4968

B2. Bands Between 4 000 kHz and
~~23-000~~ 27 500 kHz

Reasons: To reflect correct upper limit of the bands.

G/33/230

MOD 4969

§ 17. (1) A ship ... accordance with Section A of Table B of Appendix 16, 31A Section A.

Reasons: Consequential upon SUP Appendix 16 and ADD Appendix 31A.

G/33/231

MOD 4970

(2) A coast ... 4 125 kHz or ~~6-215.5~~ 6 215 kHz, in accordance with the provisions of Nos. 4375.2 and 4375.3.

Reasons: Consequential upon ADD Appendix 31A.

NOC 4971

G/33/232

MOD 4972

(4) The provisions ... specified in Section B of Table B of Appendix 16, 31A Section B.

Reasons: As for MOD 4969.

NOC 4973-4980

NOC 4981

C. Form of Reply to Calls

NOC 4982

NOC 4983

D. Frequency for Reply

NOC 4984-4985

DNK/FNL/ISL/NOR/S/8/103
E/42/128

MOD 4986

(2) When a ship station is called by selective calling in accordance with Section II of Article 62, it shall reply on a frequency on which the coast station keeps watch.

Reasons: As for MOD 4951.

G/33/233

MOD 4986 (2) When a ship station is called by selective calling using the system indicated in No. 4668, it shall reply on a frequency on which the coast station keeps watch.

Reasons: To indicate that this provision applies only to SSFC and not to DSC.

NOC 4987-4993

G/33/234

MOD 4994 D2. Bands Between 4 000 kHz and
~~23-000~~ 27 500 kHz

Reasons: To reflect the correct upper limit of the bands.

G/33/235

MOD 4995 § 22. (1) A ship ... accordance with Section A of Table B of Appendix 16, 31A Section A.

Reasons: As for MOD 4969.

NOC 4996-4997

G/33/236

MOD 4998 (4) When a station is called on the carrier frequency
~~6-215.5~~ 6 215 kHz it ... calling station.

Reasons: Consequential upon ADD Appendix 31A.

G/33/237

MOD 4999 (5) The provisions ... specified in Section B of Table B of Appendix 16, 31A Section B.

Reasons: As for MOD 4969.

NOC 5000-5001

DNK/FNL/ISL/NOR/S/8/104
E/42/129

MOD 5002 (2) When a coast station open to public correspondence calls a ship either by speech or by selective calling in accordance with Section II of Article 62, using a two-frequency channel, the ship station shall reply by speech on the frequency associated with that of the coast station; conversely, a coast station shall reply to a call from a ship station on the frequency associated with that of the ship station.

Reasons: As for No. 4951.

NOC 5003 E. Indication of the Frequency
to Be Used for Traffic

NOC 5004-5005

G/33/238

MOD 5006 E2. Bands Between 4 000 kHz
and ~~23 000~~ 27 500 kHz

Reasons: As for MOD 4994.

NOC 5007-5014

NOC 5015 F. Agreement on the Frequency
to Be Used for Traffic

NOC 5016-5021

NOC 5022 G. Indication of Traffic

NOC 5023

NOC 5024 H. Difficulties in Reception

NOC 5025-5027

NOC Section V. Forwarding (Routing) of Traffic

NOC 5028 A. Traffic Frequency

NOC 5029-5036

NOC 5037 B. Establishment of Radiotelephone Calls
and Transmission of Radiotelegrams

NOC 5038-5054

NOC Section VI. Duration and Control of Working

NOC 5055-5057

NOC Section VII. Tests

NOC 5058-5059

G/33/239

MOD 5060 (2) Any signals ... identified in ~~Article~~ Articles 38 and
N 38 for the ... purposes.

Reasons: To include a reference to Article N 38.

CAN/25/398

CEPT-11/18/17

PHL/77/87

USA/24/672

SUP 5061

Reasons: Consequential to MOD 3016.

DNK/FNL/ISL/NOR/S/8/105

ADD

Section VIII. Calling, Acknowledgement of Calls, and Forwarding of Traffic when Using Digital Selective-Calling Techniques

DNK/FNL/ISL/NOR/S/8/106

ADD 5062

A. Method of Calling and Frequencies to be Used for Calling

DNK/FNL/ISL/NOR/S/8/107

ADD 5063

Calling by digital selective-calling techniques shall be carried out in accordance with the provisions of Nos. 4686A to 4686H

Reasons: Describes that radiotelephone stations shall follow the procedure prescribed in Nos. 4686A to 4686H when calling by digital selective-calling techniques.

DNK/FNL/ISL/NOR/S/8/108

ADD 5064

An appropriate digital selective-calling channel chosen in accordance with the provisions of Nos. 4419D to 4419H or Nos. 4420D to 4420H, as appropriate, shall be used for the call.

Reasons: To indicate that the call shall be made on an appropriate digital selective-calling frequency and to indicate that the frequency to be used should be chosen in accordance with the relevant provisions Nos. 4419D to 4419H or Nos. 4420D to 4420H.

DNK/FNL/ISL/NOR/S/8/109

ADD 5065

B. Acknowledgement of Calls and Agreement of the Frequency to be used for Traffic

DNK/FNL/ISL/NOR/S/8/110

ADD 5066

Acknowledgement of a received digital selective call and the exchange of information concerning the frequency to be used for traffic, should be carried out in accordance with the provisions of Nos. 4688A to 4690H.

Reasons: To specify the method of acknowledgement and exchange of information concerning working frequency.

DNK/FNL/ISL/NOR/S/8/111

ADD 5067

When agreement regarding the working frequency or channel to be used for the exchange of traffic has been reached in accordance with the provisions of Nos. 4688A to 4690H, the two stations then transfer to the working frequency or channel agreed for the exchange of traffic.

Reasons: To indicate that the exchange of traffic shall be carried out on an appropriate working frequency.

DNK/FNL/ISL/NOR/S/8/112

ADD 5068

C. Forwarding (Routing) of Traffic and Control of Working

DNK/FNL/ISL/NOR/S/8/113

ADD 5069

The transmission of traffic and the control of working shall be carried out in accordance with the provisions of Nos. 5028 to 5054, No. 5056 and No. 5057.

Reasons: To prescribe the procedures for forwarding the traffic.

5070 to 5084 NOT allocated.

E/42/130

ADD

Section VIII. Calling, Acknowledgement of Calls, and Subsequent Exchange of Traffic when Using Digital Selective Calling Techniques

E/42/131

ADD 5062

A. Method of Calling and Frequencies to be Used for Calling

E/42/132

ADD 5063

§ 37. (1) Calling by digital selective calling techniques shall be carried out in accordance with the provisions of Nos. 4686A to 4686K.

Reasons: To establish that radiotelephone stations shall follow the procedure prescribed in Nos. 4686A to 4686K when calling by digital selective-calling techniques.

E/42/133

ADD 5064

(2) An appropriate digital selective calling channel chosen in accordance with the provisions of Nos. 4419D to 4419H or Nos. 4420D to 4420H, as appropriate, shall be used for the call.

Reasons: To indicate that the call shall be made on an appropriate digital selective calling frequency, chosen in accordance with the provisions mentioned, as appropriate.

E/42/134

ADD 5065

B. Acknowledgement of Calls and Agreement on the Frequency to be used for Traffic

E/42/135

ADD 5066

§ 38. (1) Acknowledgement of a received digital selective call and the exchange of information concerning the frequency to be used for traffic, should be carried out in accordance with the provisions of Nos. 4688A to 4690H.

E/42/136

ADD 5067

(2) When agreement regarding the working frequency or channel to be used for the exchange of traffic has been reached in accordance with the provisions of Nos. 4688A to 4690H, the two stations shall exchange traffic on the agreed working channel or frequency.

Reasons: To indicate that the exchange of traffic shall be carried out on an appropriate working frequency.

E/42/137

ADD 5068

C. Forwarding of Traffic and Control of Working

E/42/138

ADD 5069

§ 39. The forwarding of traffic and the control of working shall be carried out in accordance with the provisions of Nos. 5028 to 5054, No. 5056 and No. 5057.

Reasons: To prescribe the procedures for the forwarding of traffic.

E/42/139

MOD 5069 5070 to 5084 NOT allocated.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/35-E
24 September 1987
Original: English

SUB-WORKING GROUP 6-B-2

NOTE BY THE CHAIRMAN OF SUB-WORKING GROUP 6-B-2

In order to assist Sub-Working Group 6-B-2, attached is a consolidated document concerning proposals on Articles 1, 24, 25, Appendices 9, 10, 13, Resolutions 12, 202, Recommendations 8 and 204.

A.V. CAREW
Chairman of Sub-Working Group 6-B-2

Annex: 1

ARTICLE 24

Licences

CHN/63/1

MOD 2024 § 3. To facilitate the verification of licences issued to mobile stations and/or mobile earth stations, there shall be added, when necessary, to the text written in the national language, a translation of the text in one of the working languages of the Union.

Reasons: For consistency with Nos. 65 and 66.

CHN/63/2

MOD 2025 § 4. (1) The government which issues a licence to a mobile station and/or a mobile earth station shall mention therein in clear form the particulars of the station, including its name, call sign and, where appropriate, the public correspondence category, as well as the general characteristics of the installation.

Reasons: As for MOD 2024.

CHN/63/3

MOD 2027 § 5. (1) In the case of a new registration of a ship or aircraft in circumstances where delay is likely to occur in the issue of a licence by the country in which it will be registered, the administration of the country from which the mobile station and/or mobile earth station wishes to make its voyage or flight may, at the request of the operating company, issue a certificate to the effect that the station complies with these Regulations. This certificate, drawn up in a form determined by the issuing administration, shall give the particulars mentioned in No. 2025 and shall be valid only for the voyage or flight to the country in which the registration of the ship or aircraft will be effected, or for a period of three months, whichever is the lesser.

Reasons: As for MOD 2024.

ARTICLE 25

Identification of Stations

CAN
CEPT-7

G

NOC

Identification of Stations

CAN
CEPT-7

NOC Section I. General Provisions

CAN
CEPT-7

NOC 2055-2064

J/60/48

ADD 2063A (f) Maritime mobile satellite service.

ARG/5/17

ADD 2064A (4A) All transmissions by emergency position-indicating radiobeacons operating in the band 406 - 406.1 MHz or 1 645.5 - 1 646.5 MHz or by radiobeacons using digital selective calling techniques shall carry identification signals.

Reason: Alignment with the procedures developed by the CCIR in connection with EPIRBs intended for distress and safety and using digital selective calling.

AUS/40/54

+ADD 2064A All transmissions by emergency position-indicating radiobeacons operating in the band 406-406.1 MHz or the band 1645.5-1646.5 MHz or by those using digital selective calling techniques shall carry identification signals.

Reason: To take account of the procedures developed in CCIR for these EPIRBs, and the use of DSC in automated distress and safety communications systems.

B/57/19

ADD 2064A Like IMO proposal

Reason: Like IMO proposal

CAN/25/11

CEPT-7/14/1 *

USA/24/124

*ADD 2064A (4A) All transmissions by emergency position-indicating radiobeacons operating in the band 406-406.1 MHz or the band 1645.5-1646.5 MHz, or by those using digital selective calling techniques, shall carry identification signals.

Reason: To take account of the procedures developed in CCIR for the EPIRBs referred to, and for DSC used for automated communications for distress and safety.

PHL/77/13

ADD 2064A

(4A) All transmissions by emergency position-indicating radiobeacons operating in the band 406 - 406.1 MHz or 1 645.5 - 1 646.5 MHz by radiobeacons using digital selective calling techniques shall carry identification signals.

Reasons: Consistency with the procedures developed by the CCIR in connection with EPIRBs intended for distress and safety and using DSC.

CAN

CEPT-7

NOC 2065-2067

B/57/20

MOD 2068

Like IMO proposal

Reason: Like IMO proposal

ARG/5/18

MOD 2068

b) Emergency position-indicating radiobeacons (except those indicated in ADD 2064A).

ARG/5/19

Not used.

Reason: Consistency with No. 2064A.

AUS/40/55

+MOD 2068 (b) emergency position-indicating radiobeacons (except for those in No. 2064A).

Reason: Consequential to ADD 2064A.

CAN/25/12

*MOD

2068 (b) emergency position-indicating radiobeacons (except for those in No. 2064A).

Reason: Consequential to ADD 2064A.

CEPT-7/14/2

MOD 2068

b) emergency position-indicating radiobeacons (except for those mentioned in No. 2064A).

Reasons: Consequential upon ADD 2064A.

PHL/77/14

MOD 2068

b) emergency position-indicating radiobeacons (except those indicated in ADD 2064A).

Reasons: Consistency with No. 2064A.

USA/24/125

MOD 2068

b) emergency position-indicating radiobeacons (except as provided for in ADD 2064A).

Reason: Consequential to ADD 2064A.

J/60/49

ADD 2068A (c) Space station in the maritime mobile satellite service.

Reason: Stations in this service, including satellite EPIRBs (except for space stations), should carry the identification signals.

G/33/15

MOD 2069 3. In transmissions Appendix 43¹ or by internationally.

G/33/16

SUP 2069.1

Section II. Allocation of International Series
and Assignment of Call Signs

G/33/17

MOD 2083 (2) As the Appendix 43¹.

G/33/18

SUP 2083.1

G/33/19

MOD 2087 15. The Secretary-General Appendix 43²).

G/33/20

SUP 2087.1

Reason: MOD 2069, 2083 and 2087 and SUP 2069.1, 2083.1 and 2087.1. Consequential upon SUP Resolution 320.

G/33/21

MOD 2087A 15A. The Secretary-General accordance with Resolution 320-~~(Mob-83)~~ Appendix 43.

Reason: Consequential upon the inclusion of information from Resolution 320 in Appendix 43 and upon SUP Resolution 320.

Section VI. Maritime Mobile Service Identities in the Maritime Mobile Service
and the Maritime Mobile-Satellite Service

G/33/22

MOD 2149

37. When a station Appendix 43 and-Resolution-320
{Mob-83}, taking into consideration relevant CCIR and CCITT
Recommendations.

Reason: Consequential upon SUP Resolution 320.

CAN

* Proposals preceded by an asterisk are identical of those of IMO.

APPENDIX 9

Service Documents¹

(See Articles 10, 12, 13, 17 and 26)

List VI. List of Radiodetermination
and Special Service Stations

USA/24/657

MOD

12. Fixed earth stations in the maritime
radionavigation radiodetermination-satellite service

Columns 3a, 3b, 3c Transmission of radionavigation
radiodetermination information

Columns 4a, 4b Reception of radionavigation
radiodetermination information

Column 7

Remarks

Special methods of modulation,
charges, etc. All listed stations
provide maritime radiodetermination-
satellite service except where
otherwise indicated, in which case a
station provides only radiolocation or
radionavigation-satellite service.

USA/24/658
MOD

13. Space stations in the maritime radionavigation
radiodetermination-satellite service

Columns 2a, 2b, 2c Transmission of radionavigation
radiodetermination information to
ships

Columns 3a, 3b Reception of radionavigation
radiodetermination information from
ships

Column 7 Remarks

Orbital information, special chan-
neling arrangements, special modula-
tion methods, charges, etc. All
listed stations provide maritime
radiodetermination-satellite service
except where otherwise indicated, in
which case a station provides only
radiolocation-satellite service or
radionavigation-satellite service.

Reason: Incorporate in List VI the more general term
"radiodetermination", which includes both "radiolocation"
and "radionavigation", in that the radiodetermination-
satellite service is an emerging technology applicable to
maritime service.

APPENDIX 10

Service Document Symbols

(See Article 26 and Appendix 9)

B/57/294
ADD

BR Base Relay Station

Reason: Consequential to ADD 68A of the Brazilian
proposal.

TUR/59/75
USA/24/659
ADD

EF Radiodetermination-Satellite Space Station

Reason: To provide a Service Document Symbol for the
radiodetermination-satellite space stations. Definitions
are already contained in the Regulations (Appendix 10) for
the accommodation of "Fixed earth station in the
radiodetermination-satellite service" (TF) and for "Mobile
earth station in the radiodetermination-satellite service"
(TL). This proposal is to complete the series of service
document symbols for the radiodetermination-satellite
service.

APPENDIX 13
Mob-83

Miscellaneous Abbreviations and Signals to Be Used
in Radiotelegraphy Communications Except in the
Maritime Mobile Service

(See Article 52)

TZA/132/20

NOC REASON: The provisions continue to be used.

DDR/7/13

NOC Reason: The provisions of Appendix 13 are used further on.

RESOLUTION No. 12

Relating to the New Rules for the Formation of Call Signs

AUS/40/400
#SUP

Reason: No longer required since the new rules for the formation of callsigns in Article 25 entered into force on 1 January 1981.

BFA/120/2

SUP

Reasons: No longer valid.

CAN/25/423

SUP

Reason: There is no further requirement for the actions prescribed in the Resolution.

CUB/98/229

SUP

Reasons: Is no longer required since its purposes were achieved in Article 25.

CTI/86/69

SUP

Reasons: No longer necessary since the new rules for the formation of call signs in Article 25 came into force on 1 January 1981.

DDR/7/40
SUP

Reason: The provisions of Resolution No. 12 are contained in Article 25.

E/39/2
SUP

Reasons: Is no longer necessary because the new rules for the formation of call signs are contained in Article 25 and came into force on 1 January 1981.

G/33/292
SUP

Reason: No longer required since the new rules for the formation of callsigns in Article 25 entered into force on 1 January 1981. The Secretary General is required to publish information on the use of the new rules.

J/60/653
SUP

Reason: The function of this Resolution has been completd.

MEX/115/1
SUP

Reasons: This Resolution is no longer necessary, since the new rules for the formation of call signs in Article 25 came into force on 1 January 1981.

PHL/77/102
SUP

Reasons: The provisions of this Resolution are contained in Article 25 which entered into force on 1 January 1981.

PRG/61/137
SUP

Reasons: No longer applicable.

SEN/103/9
SUP

Reasons: Having regard to the provisions of Article 25 relating to the identification of stations, this Resolution is no longer necessary.

USA
SUP

Reason: No longer required since the new rules for the formation of call signs in Article 25 entered into force on 1 January 1981.

RESOLUTION No. 202

Relating to the Convening of a
World Administrative Radio Conference for the Mobile Services

B/57/320
SUP

Reason: The WARC-MOB-87 will have taken action concerning this resolution.

BFA/120/2
SUP

Reasons: No longer valid.

CAN/25/425
SUP

Reason: The 1983 and 1987 conferences for the mobile services are the appropriate responses to this Resolution and as worded, it is no longer valid.

CUB/98/231
SUP

Reasons: The purposes of this Resolution have been achieved by the holding of WARC MOB-87.

DDR/7/44
SUP

Reason: Resolution No. 202 has served its purpose.

J/60/654
SUP

Reason: The function of this Resolution has been completed.

KEN/58/3
SUP

REASON:
Resolution 202 has served its purpose.

MEX/115/2
SUP

Reasons: WARC-MOB-83 and WARC-MOB-87 constitute an adequate response to the provisions of this Resolution. It is therefore no longer necessary.

PHL/77/105
SUP

Reasons: The provisions of this Resolution have been completed.

PRG/61/138

SUP

Reasons: The objectives of the Resolution have already been accomplished.

SEN/103/11

SUP

Reasons: This Resolution is now irrelevant.

TZA/132/32

SUP

REASON: The purpose of this resolution has been served.

USA/24/743

SUP

Reason: The effort called for by this Resolution has been completed.

RECOMMENDATION No. 8

Relating to Automatic Identification of Stations

DDR/7/69

SUP

Reason: The CCIR has completed its work.

G/33/371

NOC

Reason: The recommended action has not yet been completed by the CCIR. Meanwhile the Recommendation remains valid.

MEX/115/16

NOC

Reasons: The procedures to be recommended have not yet been completed by the CCIR.

RECOMMENDATION No. 204 (Rev.Mob-83)

Relating to the Application of Chapters IX, X, XI and XII of the Radio Regulations

B/57/333
SUP

Reason: The WARC-MOB-87 will have taken action concerning this recommendation.

CAN/25/461
SUP

Reason: Consequential to conference decisions.

DDR/7/72
SUP

Reason: After modification of Chapters IX, X, XI and XII, Recommendation No. 204 is no longer required.

G/33/374
SUP

Reason: It is assumed that WARC-MOB will take the necessary action.

J/60/663
SUP

Reason: The function of this Recommendation has been completed.

MEX/115/18
SUP

Reasons: WARC-MOB-87 includes this matter in its agenda. The Recommendation will therefore no longer be necessary, since the relevant decision is being taken.

USA/24/797
SUP

Reason: This recommendation was written by the 83 WARC to bring the above chapter into accord with the current needs and practices of the services concerned. The aggregate of proposals from the various mobile services will accomplish the aims of the recommendation and it should be suppressed, provided the Conference accepts all key provisions.

ARTICLE 1

Terms and Definitions

Section III. Radio Services

ARG/5/1

ADD 39A 3.20A Maritime radiodetermination-satellite service: a radiodetermination-satellite service in which the earth stations are located on ships.

PRG/61/5

ADD 39A 3.20A Maritime Radiodetermination-Satellite Service: a satellite radiocommunication service for the purpose of radiodetermination, in which earth stations are located on board ships.

Reasons: Need for a definition for the maritime radiodetermination-satellite service for when frequencies will be allocated to this service.

TUR/59/1

USA/24/1

ADD 39A 3.20A Maritime Radiodetermination-Satellite Service: A radiodetermination-satellite service in which earth stations are located on board ships.

ARG/5/2

ADD 39B 3.20B Aeronautical radiodetermination-satellite service: a radiodetermination-satellite service in which the earth stations are located on board aircraft.

PRG/61/6

ADD 39B 3.20B Aeronautical Radiodetermination-Satellite Service: a satellite radiocommunication service for the purpose of radiodetermination, in which earth stations are located on board aircraft.

Reasons: Need for a definition of the aeronautical radiodetermination-satellite service for when frequencies are allocated to this service.

TUR/59/2

USA/24/2

ADD 39B 3.20B Aeronautical Radiodetermination-Satellite Service: A radiodetermination-satellite service in which earth stations are located on board aircraft.

ARG/5/3

ADD 39C 3.20C Land radiodetermination-satellite service: a radiodetermination-satellite service in which the mobile earth stations are situated on the ground.

Reason: To provide for the introduction of the radiodetermination-satellite service.

TUR/59/3
ADD 39C 3.20C Land Radiodetermination-Satellite Service; A radiodetermination-Satellite service in which earth stations are located on land.

Reason : To provide wider definition in order to cover the implementation of all types of radiodetermination-satellite services.

USA/24/3
ADD 39C 3.20C Land Radiodetermination-Satellite Service: A radiodetermination-satellite service in which earth stations are located on land.

Reason: To accomodate the implementation of the radio-determination-satellite service.

Section IV. Radio Stations and Systems

F/44/1
ADD 67A 4.10A Land earth station: An earth station in the fixed-satellite service or, in some cases, in the mobile-satellite service, located at a specified fixed point on land to provide a feeder link for the mobile-satellite service.

F/44/2
ADD 68A 4.11A Base earth station: An earth station in the fixed-satellite service or, in some cases, in the land mobile-satellite service, located at a specified fixed point on land to provide a feeder link for the land mobile-satellite service.

F/44/3
ADD 69A 4.12A Land mobile earth station: A mobile earth station in the land mobile-satellite service capable of surface movement within the geographical limits of a country or continent.

ARG/5/4
ADD 81A 4.24A Radiodetermination-satellite earth station: an earth station intended for the radiodetermination-satellite service which is installed at a fixed point on the ground.

Reason: To provide a definition of a radiodetermination-satellite earth station.

TUR/59/4
ADD 81A 4.24A Fixed Radiodetermination-Satellite Earth Station; An earth station in the radiodetermination-satellite service, located at a specified fixed point on land to provide a feeder link for the radiodetermination-satellite service.

Reason : To provide separate definition for the fixed radio-determination-satellite earth station.

USA/24/4
ADD

81A 4.24A Radiodetermination-Satellite Earth Station: An earth station in the fixed-satellite service, or in some cases in the radiodetermination-satellite service, located at a specified fixed point on land to provide a feeder link for the radiodetermination-satellite service.

Reason: To provide a definition of a radiodetermination-satellite earth station.

ARG/5/5
ADD

81B 4.24B Mobile radiodetermination-satellite earth station: a mobile earth station in the radiodetermination-satellite service.

Reason: To provide a definition for a mobile radiodetermination-satellite earth station.

TUR/59/5
ADD

81B 4.24B Mobile Radiodetermination-satellite Earth Station; A mobile earth station in the radiodetermination-satellite service located on board ships or aircraft or land.

Reason : To provide separate definition for the mobile radio-determination-satellite earth station.

USA/24/5
ADD

81B 4.24B Radiodetermination-Satellite Mobile Earth Station: A mobile earth station in the radiodetermination-satellite service.

Reason: To define a radiodetermination-satellite mobile earth station.

J/60/1

ADD 101A 4.44A Microwave Landing System (MLS): A radio-navigation system which provides aircraft with position information in a wide coverage sector for purposes of precision approach and landing.

Reason: To provide definition of MLS.

SUB-WORKING GROUP 6-B-1

NOTE BY THE CHAIRMAN OF SUB-WORKING GROUP 6-B-1

In order to assist Sub-Working Group 6-B-1, attached is a consolidated document concerning proposals on Appendix 26, Resolutions Nos. 13, 405 406, 407 and Recommendations Nos. 7, 405, 604.

D.P. WILLMETS
Chairman of Sub-Working Group 6-B-1

Attachment: 1

ATTACHMENT

APPENDIX 26

Frequency Allotment Plan for the Aeronautical Mobile Service
and Related Information

PART IV

Plan for the Allotment of Frequencies for
the Aeronautical Mobile (OR) Service in the
Bands Between 2 505 and 23 350 kc/s

1. In this plan the following abbreviations have been used:

DDR/7/30	
MOD	D <u>Federal Republic of Germany</u>
DDR/7/31	
ADD	DDR German Democratic Republic
DDR/7/32	
SUP	(81) means "East Germany"

2. (OR) FREQUENCY PLAN

DDR/7/33

In the tables for the following frequencies, replace "D(81)" with
"DDR":

3 102 kHz
3 109 kHz
3 116 kHz
4 745.5 kHz
6 685 kHz
3 932 kHz
3 939 kHz

TUR/59/91

ADD TUR Turkey

2. (OR) FREQUENCY PLAN

TUR/59/92 + Corr.1
ADD

Insert "TUR" against the following frequencies in the plan:

Region 1.

3 123.0 kHz	11 180.5 kHz
3 925.0 kHz	11 209.0 kHz
4 745.5 kHz	13 215.5 kHz
6 715.5 kHz	13 235.5 kHz
6 753.0 kHz	15 016.0 kHz
8 984.0 kHz	15 046.0 kHz
8 992.5 kHz	15 066.0 kHz
9 001.0 kHz	17 993.5 kHz
9 018.0 kHz	
9 035.0 kHz	

USA/131
MOD

The United States of America proposes that the number 7 within brackets in the symbol CHN (7), wherever it appears in Appendix 26 to the Radio Regulations, be deleted. This proposal has been coordinated with the People's Republic of China and is agreeable to both Administrations.

RESOLUTION No. 13

Relating to the Formation of Call Signs and
the Allocation of New International Series

CUB/98/230
DDR/7/41
G/33/293
AUS/40/577(Add.1)
PHL/77/103
CTI/86/70
NOC

RESOLUTION No. 405

Relating to the Use of Frequencies of the
Aeronautical Mobile (R) Service

ARG/125/30
CUB/98/259
DDR/7/63
AUS/40/433
USA/24/775
KEN/58/15
CAN/25/456
G/33/361
NOC

RESOLUTION No. 406

**Relating to the Use of Frequency Bands Higher than
the HF Bands in the Aeronautical Mobile (R) Service
and the Aeronautical Mobile-Satellite (R) Service
for Communications and for Meteorological Broadcasts**

ARG/125/31
CUB/98/260
DDR/7/64
AUS/40/434
USA/24/776
KEN/58/16
CAN/25/457
G/33/362
NOC

RESOLUTION No. 407

**Relating to the Unauthorized Use of Frequencies in the
Bands Allocated to the Aeronautical Mobile (R) Service**

G/33/363
PRG/61/148
SUP

ARG/125/32
AUS/40/435
USA/24/777
KEN/58/17
CTI/86/87
CUB/98/261
NOC

G/33/370

ADD

RESOLUTION UK/C

Relating to the Unauthorized Use of Frequencies in the Bands Allocated to the Maritime Mobile Service¹ and to the Aeronautical Mobile (R) Service²

The World Administrative Radio Conference for the Mobile Services, Geneva, 1987

considering

a) that monitoring observations of the use of frequencies in the band 2170-2194 kHz and in the bands allocated exclusively to the maritime mobile service between 4063 kHz and 27500 kHz and to the aeronautical mobile (R) service between 2850 kHz and 22000 kHz show that a number of frequencies in these bands are still being used by stations of services other than those services, notably by high-powered broadcasting stations, some of which are operating in contravention of No. 2665 of the Radio Regulations;

b) that these stations are causing harmful interference to the maritime mobile and aeronautical mobile (R) services and that a considerable number of emissions, the sources of which could not be positively identified, were observed in these bands;

c) that radio is the sole means of communication of the maritime mobile service and that certain frequencies in the bands mentioned in considering a) are reserved for distress and safety purposes;

d) that radio is the sole means of communication of the aeronautical mobile (R) service and that this service is a safety service;

considering in particular

e) that it is of paramount importance that the distress and safety channels of the maritime mobile service be kept free from harmful interference, since they are essential for the protection of the safety of life and property;

f) that it is also of paramount importance that channels directly concerned with the safe and regular conduct of aircraft operations be kept free from harmful interference, since they are essential for the safety of life and property;

resolves

to urge administrations

1. to ensure that stations of services other than the maritime mobile service abstain from using frequencies in distress and safety channels and their guardbands and in the bands allocated exclusively to that service, except under the conditions expressly specified in Nos. 342, 518, 519, 522 or 956 to 958 of the Radio Regulations; and to ensure that stations of services other than the aeronautical mobile (R) service refrain from using frequencies allocated to that service other than under the conditions expressly specified in Nos. 342 and 956 of the Radio Regulations;

¹Replaces Resolution No. 309 of the WARC, Geneva, 1979;

²Replaces Resolution No. 407 of the WARC, Geneva, 1979,

2. to continue to make every effort to identify and locate the source of any unauthorized emission capable of endangering human life or property and the safe and regular conduct of aircraft operations, and to communicate their findings to the IFRB;
3. to participate in the monitoring programmes that the IFRB may organize pursuant to this Resolution;
4. to request their governments to enact such legislation as is necessary to prevent stations located off their coasts or on board aircraft operating in contravention of No. 2665 of the Radio Regulations;

to request the IFRB

1. to continue to organize monitoring programmes, at regular intervals, in the maritime distress and safety channels and their guardbands, and in the bands allocated exclusively to the maritime mobile service between 4063 kHz and 27500 kHz and to the aeronautical mobile (R) service between 2850 kHz and 22000 kHz, with a view to identifying the stations of other services operating on these channels or in these bands;
2. to take the necessary steps with a view to elimination of the emissions of stations of other services operating in these bands, which cause or are likely to cause harmful interference to the authorized maritime mobile and aeronautical mobile (R) services;
3. to seek, as appropriate, the cooperation of administrations in identifying the sources of those emissions by all available means and in securing the cessation of those emissions.

PRG/61/149

ADD

RESOLUTION No. 407 A

Relating to the Unauthorized Use of Frequencies in the Bands Allocated to the Aeronautical Mobile (R) Service¹

The World Administrative Radio Conference for the Mobile Services, Geneva, 1987,

considering

- a) that radio is the sole means of communication available to aircraft for the aeronautical mobile (R) service;
- b) that this service watches over the security and regularity of air navigation;
- c) that it is of paramount importance that channels directly concerned with the safe and regular conduct of aircraft operations be kept free from harmful interference, since they are essential for the safety of life and property;
- d) that a number of frequencies in the bands allocated exclusively to the aeronautical mobile (R) service between 2 850 kHz and 22 000 kHz are used by stations of services other than the aeronautical mobile (R) service;
- e) that these stations are causing harmful interference to the aeronautical mobile (R) service and may thus endanger human life and air navigation;

¹ Replaces Resolution No. 407 of the World Administrative Radio Conference (Geneva, 1979).

MOB-87/DL/36-E

resolves

1. to urge administrations to take all necessary steps to ensure that stations of services other than the aeronautical mobile (R) service refrain from using frequencies in the bands allocated exclusively for the use of the aeronautical mobile (R) service;
2. to make every effort to ensure that such emissions are made in appropriate bands allocated to those services other than the aeronautical mobile (R) service;

instructs the IFRB

1. to continue to organize monitoring programmes in the bands allocated exclusively to the aeronautical mobile (R) service between 2 850 kHz and 22 000 kHz with a view to identifying the source of emissions coming from stations of other services;
2. once the station of another service emitting on a frequency attributed to the aeronautical mobile (R) service has been identified, to inform the administration concerned;

calls upon

administrations, in such a case, to take all necessary steps to stop any emissions contravening the provisions of the Radio Regulations concerning the aeronautical mobile (R) service.

RECOMMENDATION No. 7

Relating to the Adoption of Standard Forms for
Ship Station Licenses and Aircraft Station Licenses

CUB/98/266
DDR/7/68
CAN/25/460
AUS/40/582(Add.1)
KEN/58/20
NOC

RECOMMENDATION No. 7

CHN/63/24
MOD

Relating to the Adoption of Standard Forms for Ship Station
(Ship Earth Station) Licences and Aircraft Station
(Aircraft Earth Station) Licences

considering

CHN/63/25

- MOD a) that the standardization of the licence forms issued to stations (earth stations) installed on board ships and aircraft making international voyages and flights would greatly facilitate the task of inspection of such stations (earth stations);
- b) that standard licence forms for ship stations (ship earth stations) and for aircraft stations (aircraft earth stations) would serve as a useful guide to those administrations desiring to improve their existing national licences;

considering further

CHN/63/26

- MOD b) specimens of a ship station (ship earth station) licence and of an aircraft station (aircraft earth station) licence (see Annexes 2 and 3);

ANNEX 1 TO RECOMMENDATION No. 7

CHN/63/27
MOD Principles for the Formulation of Standard Ship
and Aircraft Station (Ship and Aircraft
Earth Station) Licences

CHN/63/28
MOD The Administrative Radio Conference, Geneva, 1959, considered
that, in formulating standard ship and aircraft station (ship and aircraft
earth station) licences, the following set of principles should be
applied:

CHN/63/29
MOD 2. The licence for ship stations (ship earth stations) and the
licences for aircraft stations (aircraft earth stations) should be as
similar as possible.

CHN/63/30
MOD 6. The title "Ship Station (Ship Earth Station) Licence" or "Aircraft
Station (Aircraft Earth Station) Licence" should appear at the top of the
licence in the national language as well as in the three working languages
of the Union.

ANNEX 2 TO RECOMMENDATION No. 7

CHN/63/31
MOD Ship Station (Ship Earth Station) Licence

CHN/63/32
MOD * The words "Ship Station (Ship Earth Station) Licence" written in
the national language, if this is not one of the three working languages
of the Union.

ANNEX 3 TO RECOMMENDATION No. 7

CHN/63/33
MOD Aircraft Station (Aircraft Earth Station) Licence

CHN/63/34
MOD * The words "Aircraft Station (Aircraft Earth Station) Licence"
written in the national language, if this is not one of the three working
languages of the Union.

B/57/325

MOD Recommendation N° 7

Relating to the Adoption of Standard Licence Forms
for ~~Ship Stations Licences~~ On Board Ships and
Aircraft Station Licences

The World Administrative Radio Conference
for the Mobile Services, Geneva, ~~1979~~ 1987,

considering

a) that the standardization of the licence forms issued to stations installed on board ships and aircraft making international voyages and flights would greatly facilitate the task of inspection of such stations;

b) ~~that standard licence forms for ship stations and for aircraft stations~~ would serve as a useful guide to those administrations desiring to improve their existing national licences that there is a need to simplify the licence forms for stations on board ships and aircraft, due to the diversity of available services to these stations;

c) that standard licence forms could be advantageously used by these administrations as the form of certification specified in No. 2027 of the Radio Regulations;

considering further

~~that the Administrative Radio Conference, Geneva, 1959,~~ this conference has formulated:

a) a set of principles for the draft of a standard licence form (see Annex 1);

b) specimens of a ship-station licence and of an forms for stations on board ships and aircraft station-licence (see Annexes 2 and 3);

recommends

1) that administrations which find these forms practicable and acceptable should adopt them for international use;

2) that administrations should, as far as possible, endeavour to bring their national licence forms into line with these standard forms.

B/57/326

MOD

ANNEX 1 TO RECOMMENDATION N° 7

Principles for the Formulation of Standard Licence for Stations On Board Ships and Aircraft Station Licences

The World Administrative Radio Conference for the Mobile Services, Geneva, -1959- 1987, considered that, in formulating standard ship and aircraft station licences, the following set of principles should be applied:

1. The licence should, as far as possible, be prepared in tabular form, ~~and each line and column of the table clearly numbered or lettered~~.
2. The licence for ship-stations on board ships and ~~the licences for aircraft stations~~ should be as similar as possible.
3. The size of the licence should be international standard A4.
4. The licence should be designed in a form which facilitates its exhibition on board a ship or an aircraft.
5. The licence should be printed in Latin characters in the national language of the country which issues it. Those countries whose national language cannot be written in Latin characters should use their national language and, in addition, one working language of the Union.
6. The title "Ship Station Radiocommunication Licence" or "Aircraft Station Radiocommunication Licence" should appear at the top of the licence in the national language as well as in the three working languages of the Union.

These principles were used in formulating the two standard forms which are given in Annexes 2 and 3.

B/57/327
MOD

ANNEX 2 TO RECOMMENDATION N° 7
(Full name of the authority issuing the licence, in the national language)

.....*
SHIP STATION-RADIOCOMMUNICATION LICENCE
LICENCE DE STATION-RADIOCOMMUNICATION DE NAVIRE
LICENCIA DE ESTACIÓN-RADIOCOMUNICACIÓN DE BARCO
No.....

Period of validity.....

In accordance with (Title..of.the.National.Regulation) and with the Radio Regulations annexed to the International Telecommunication Convention now in force, this authorization is herewith issued for the installation and for the use of the radio equipment described below:

B/57/328
SUP
B/57/329
ADD

existing table.

new table as follows:

1. Name of ship		2. Owner of ship		3. Public correspondence category	
4. Call sign		5. Identification n°		6. Other identifications	
7. Equipment	8. Maximum power (Watts)	9. Class of emission	10. Frequency bands or assigned frequencies or channel number**		

This station must be manned in accordance with the provisions of Article 56 of the Radio Regulations.

For the Issuing Authority:

.....
Place Date Authentication

* The words "Ship Station Radiocommunication Licence" written in the national language, if this is not one of the three working languages of the Union.

** Specifically or by reference.

B/57/330
MOD

ANNEX 3 TO RECOMMENDATION N° 7
(Full name of the authority issuing the licence, in the national language)

.....*
AIRCRAFT STATION RADIOCOMMUNICATION LICENCE
LICENCE DE STATION RADIOCOMMUNICATION D'AÉRONEF
LICENCIA DE ESTACIÓN RADIOCOMUNICACIÓN DE AERONAVE
No.....
Period of validity.....

In accordance with (Title..of.the.National Regulation).and with the Radio Regulations annexed to the International Telecommunication Convention now in force, this authorization is herewith issued for the installation and for the use of the radio equipment described below:

B/57/331
SUP
B/57/332
ADD

existing table.

new table as follows:

1. Nationality and registration mark of the aircraft	2. Owner of aircraft	3.Type of aircraft	
4. Call sign	5. Identification n°	6. Other identifications	
7. Equipment	8. Maximum power (Watts)	9. Class of emission	10.Frequency bands or assigned frequencies **

This station must be manned in accordance with the provisions of Article 45 of the Radio Regulations.

For the Issuing Authority:

.....
Place Date Authentication

*The words "Aircraft Station Radiocommunication Licence" written in the national language, if this is not one of the three working languages of the Union.

** Specifically or by reference.

RECOMMENDATION No. 405
Relating to a Study of the Utilization of
the Aeronautical Mobile-Satellite (R) Service

CUB/98/277
DDR/7/85
KEN/58/24
CAN/25/470
G/33/411
AUS/40/450
NOC

RECOMMENDATION No. 604 (Rev.Mob-83)
Relating to the Future Use and Characteristics of Emergency
Position-Indicating Radiobeacons

CAN/25/472
SUP

DDR/7/88
USA/24/813
AUS/40/452
KEN/58/27
CUB/98/281
NOC

G/33/417
MOD The World Administrative Radio Conference for the Mobile
Services, Geneva, -1983 1987
recognising
G/33/418
MOD a) that there are and in the bands 406-406.1 MHz and
1645.5 and 1646.5 MHz;
G/33/419
SUP b)
G/33/420
MOD ~~a) b)~~ that in order EPIRB's ~~operating on the frequencies~~
~~-121.5-MHz and -243-MHz,~~ this Conference has adopted Appendix
37A.

(Ref.: Resolution No. 206)

WORKING GROUP 5 AD HOC 1

RESOLUTION No. XX

Relating to the Date of Entry into Force of the
10 kHz Guardband for the Frequency 500 kHz
in the Mobile Service (Distress and Calling)

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

considering

- a) that the frequency spectrum should be used in the most efficient way possible;
- b) that the World Administrative Radio Conference, Geneva, 1979, adopted a 495 kHz to 505 kHz guardband for the frequency 500 kHz, which is the international distress and calling frequency for radiotelegraphy in the mobile service;
- c) that the use of frequencies in the band 490 - 510 kHz must be such as to provide full protection for distress and safety communications on 500 kHz;
- d) that an adequate amortization period has been allowed for the radio equipment currently in service;

recognizing

that WARC-83 asked this Conference to decide on the date of entry into force of the definitive 495 kHz to 505 kHz guardband;

resolves

that the date of entry into force of the 10 kHz guardband for the frequency 500 kHz shall be [the date for the full implementation of the GMDSS].

R.C. McINTYRE
Chairman of Working Group 5 ad hoc 1

WORKING GROUP 5 AD HOC 1Draft

RESOLUTION No. [COM5/1]

Relating to the Introduction of Provisions for the
Global Maritime Distress and Safety System (GMDSS)
and the Continuation of the Existing Distress
and Safety Provisions

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

noting

that the International Maritime Organization (IMO):

- has reached the final stage of development of the Global Maritime Distress and Safety System (GMDSS);
- is preparing a revision of the International Convention for the Safety of Life at Sea (SOLAS), 1974, with a view to introducing the GMDSS;
- will decide the dates of initial and full implementation of the GMDSS including any intermediate dates of application for various classes of ships subject to the above-mentioned Convention;

noting further

- a) that until such time as the GMDSS has been implemented fully, ships subject to the 1974 SOLAS Convention will continue to use applicable existing distress and safety provisions to ensure the compatibility of ship stations following, on the one hand, Chapter IX and, on the other, Chapter N IX of the Radio Regulations;
- b) that some administrations and ships not subject to the 1974 SOLAS Convention may continue to use provisions of Chapter IX on Distress and Safety Communications after the GMDSS has been implemented fully;
- c) that it would be inappropriate to require administrations to maintain all existing distress and safety facilities and those for the GMDSS in parallel for an excessive period of time;

considering

- a) that this Conference has placed in Chapter N IX the provisions which are required for the GMDSS to be implemented and that Chapter IX has been modified so that it retains the provisions that will not form part of the GMDSS;

b) that, after the date of the introduction of the GMDSS, stations in the maritime mobile and the maritime mobile-satellite services are obliged to follow either the appropriate provisions established in Chapter IX or in Chapter N IX or in both;

recognizing

that to assist the IMO, the provisions of Chapter N IX should enter into force prior to the earliest date on which the amendments to the SOLAS Convention might start the implementation of the GMDSS.

WORKING GROUP 5 AD HOC 1

Draft

RESOLUTION No. [COM5/1]

Relating to the Introduction of Provisions for the
Global Maritime Distress and Safety System (GMDSS)
and the Continuation of the Existing Distress
and Safety Provisions

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

noting

- a) that the International Maritime Organization:
- has reached the final stage of development of the Global Maritime Distress and Safety System (GMDSS);
 - is preparing a revision of the International Convention for the Safety of Life at Sea (SOLAS), 1974, with a view to introducing the GMDSS;
 - will decide the dates of initial and full implementation of the GMDSS or any intermediate dates of application for various classes of ships.
- b) that, in accordance with the procedure laid down in SOLAS, the IMO body responsible for the adoption of Chapter IV-SOLAS will decide the dates of initial and full implementation of GMDSS or any intermediate dates of application for various classes of ships.

R.C. McINTYRE
Chairman of Working Group 5 ad hoc 1

WORKING GROUP 5 AD HOC 1

Draft

RESOLUTION No. [COM5/1]

**Relating to the Introduction of Provisions for the
Global Maritime Distress and Safety System (GMDSS)
and the Continuation of the Existing Distress
and Safety Provisions**

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

noting

that the International Maritime Organization:

- has reached the final stage of development of the Global Maritime Distress and Safety System (GMDSS);
- is preparing a revision of the International Convention for the Safety of Life at Sea (SOLAS), 1974, with a view to introducing the GMDSS;
- will decide the dates of initial and full implementation of the GMDSS or any intermediate dates of application for various classes of ships.

R.C. McINTYRE
Chairman of Working Group 5 ad hoc 1

WORKING GROUP 5-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 5-A

After consultation with the representatives of INMARSAT, the following proposals are submitted for consideration by the Working Group.

DT/1B (p. 24)

ADD N 3182

Second sentence:

Consequently, the ship earth station operator shall continue to be available for communications through the ship earth station until the acknowledgement is received.

CAN/25/152

ADD N 3183A

The acknowledgement by direct-printing telegraphy of receipt of a distress alert from a ship earth station shall be given by the coast earth station receiving the distress alert by retransmitting the ship station identity (ID) of the ship in distress.

U. HAMMERSCHMIDT
Chairman of Working Group 5-A

WORKING GROUP 5-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 5-A

After consultation with the representatives of INMARSAT, the following proposals are submitted for consideration by the Working Group.

E/43/188

ADD N 3173B

In direct-printing radiotelegraphy, a distress alert from a ship earth station shall be transmitted in accordance with the INMARSAT Standard-C System Definition Manual (module 3)..

DT/1B (p. 24)

ADD N 3182

Second sentence:

Consequently, the ship earth station operator shall continue to be available for communications through the ship earth station until the acknowledgement is received.

CAN/25/152

ADD N 3183A

The acknowledgement by direct-printing telegraphy of receipt of a distress alert from a ship earth station shall be given by the coast earth station receiving the distress alert by retransmitting the ship station identity (ID) of the ship in distress.

U. HAMMERSCHMIDT
Chairman of Working Group 5-A

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION

WARC FOR THE MOBILE SERVICES

GENEVA, September-October 1987

Document DL/40-E
28 September 1987
Original: English

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

Please find attached a draft amendment to Article 26 intended to accommodate for the addition of a new service document for stations within the FGMDSS.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

ATTACHMENT

Draft amendments to Article 26

- 2236A ADD §14. List IX. List of selected coast and coast earth stations participating in the Global Maritime Distress and Safety System (GMDSS)
- 2236B ADD (1) The list shall contain in tabulated form particulars of:
- 2236C ADD a) selected coast stations participating in the [VHF, MF and HF] watchkeeping using digital selective calling techniques;
- 2236D ADD b) selected coast earth stations operating in the geostationary satellite system and capable of:
- 2236E ADD i) providing distress and safety communications with ship earth stations including distress alerting using radiotelephony and/or direct printing;
- 2236F ADD ii) receiving and processing transmissions of satellite EPIRBs operating in the band 1.6 GHz;
- 2236G ADD iii) transmitting marine safety information to mobile units using direct-printing techniques;
- 2236H ADD c) coast stations transmitting navigational and meteorological warnings and urgent information to ships using direct-printing techniques;
- 2236I ADD d) coast earth stations operating in the polar-orbiting satellite system and capable of receiving signals transmitted by satellite beacons on the frequencies 121.5 MHz and/or 243 MHz and/or in the band 406.0-406.1 MHz.
- 2236J ADD (2) List IX shall be first published following entry into force of Chapter NIX (see Resolution A) and then it shall be republished every two years and kept up to date by recapitulative supplements issued every two months.
- 2237 MOD Add "IX" on lines 4, 9, 11 and 16
- 2239 MOD Add "IX" on line 1

APPENDIX 9

Add the following section:

**List IX. List of Selected Coast and Coast Earth Stations
Participating in the GMDSS
(see Article 26)**

The information concerning these stations shall be published as shown below.

Part A. Particulars of selected coast stations
participating in the VHF, MF and HF watchkeeping
using digital selective calling technique

Name of the station ¹	Call sign ²	Emission			Service		Geographical coordinates of the transmitting antenna (longitude and latitude in degrees, minutes and seconds)	Remarks	
		Frequencies kHz	Class	Power (kW)	Nature ⁶	Hours of service (UTC)			
1	2	3a ³	3b ⁴	4	5	6	7		

- 1 Indicate for each country the coast station(s) provided.
- 2 Indicate the maritime mobile service identity number
- 3 Transmitting frequencies
- 4 Watch and/or receiving frequencies or channels
- 5 In the case of directive antennas, indicate under the power, the azimuth of the direction or directions of maximum gain, in degrees, beginning from True North clockwise.
- 6 Indicate whether radiotelephony and/or direct-printing system is provided.

Part B. Particulars of selected coast earth stations
operating in the geostationary satellite system

Name of the station ¹	Ocean region ²	Service			Geographical coordinates of the transmitting antenna (longitude and latitude in degrees, minutes and seconds)	Remarks
		Nature ³	Hours of service (UTC)	Charges		
1	2	3	4	5	6	7

- 1 Indicate for each country the coast earth station or coast earth stations provided.
- 2 Indicate the ocean region(s) in which the service is provided.
- 3 Indicate whether the station is capable of providing:
 - a) distress and safety communications including distress alerting with ship earth stations using radiotelephony and/or direct printing;
 - b) receiving and processing transmissions of satellite EPIRBs operating in the band 1.6 GHz;
 - c) transmitting marine safety information to mobile units.

Part C. Particulars of coast stations transmitting
navigational and meteorological warnings and urgent
information to ships using direct-printing techniques

Name of the station ¹	Frequencies, kHz ²	Call sign/Identification character ³	Times of transmission	Nature of service ⁴	Language used	Power (kW) ⁵	Geographical coordinates of the transmitting antenna (longitude and latitude in degrees, minutes and seconds)	Remarks
1	2	3	4	5	6	7	8	9

- 1 Indicate for each country the coast station(s) provided.
- 2 Indicate on which frequency(ies) information is transmitted (490 kHz, 518 kHz, 4 MHz, HF band).
- 3 Indicate the maritime mobile service identity number or the identification number. In the case of the international NAVTEX service, indicate B1 character.
- 4 Indicate which kinds of broadcasts (navigational and meteorological warnings, ice reports etc.) are provided.
- 5 In the case of directive antennas, indicate under the power, the azimuth of the direction or directions of maximum gain, in degrees, beginning from True North clockwise.

Part D. Particulars of coast earth stations operating in
the polar-orbiting satellite system

Name of the station ¹	Frequencies, MHz ²	Service ³	Geographical coordinates of the transmitting antenna (longitude and latitude in degrees, minutes and seconds)	Hours of operation (UTC)	Remarks
1	2	3	4	5	6

- 1 Indicate for each country the coast earth station or coast earth stations provided.
 - 2 Indicate frequencies (121.5 MHz and/or 243 MHz and/or 406 MHz) on which information from beacons can be received.
 - 3 Indicate in which modes (real time or global or both) the station or stations can operate.
-

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist the work of the Working Group the following points should be taken before the formation of a Drafting Group to consider Article 60. The results of the discussion and decision in the Working Group can then be given to the Drafting Group as terms of reference.

- 1) The structure for Article 60 should follow that of Document DL/23 as modified by the Working Group on Monday, 28 September 1987.
- 2) The DSC references should be grouped together along the lines proposed by Nordic countries and Spain.
- 3) Editorially "Morse" should be added when the provision refers to radiotelegraphy as in the present article.
- 4) Reflect the proposed suppression of Resolution No. 308 (Channel spacing 154 - 174 MHz) as time has expired.
- 5) Reflect proposed suppression of Appendix 31 and replacement by a new appendix with appropriate editorial substantive cross-references.
- 6) Eliminate references to sub-bands (in favour of point 5) above).
- 7) Reflect new Chapter N IX (Article N 38) and revision of old Chapter IX (Article 38).
- 8) Incorporate Region 1 MF telephone and telegraph channelling arrangements in an appendix with appropriate cross-references.
- 9) Pick up miscellaneous individual national proposals.
- 10) Canadian text on marking signals in NBDP sub-bands, i.e. Section III.

R. SWANSON
Chairman of Working Group 6-A

WORKING GROUP OF THE PLENARY AD HOC 3DraftREPORT OF THE WORKING GROUP OF THE PLENARY AD HOC 3
TO THE WORKING GROUP OF THE PLENARY

1. The Working Group of the Plenary ad hoc 3 considered the sharing possibilities of RDSS with existing authorized services in the proposed bands.
2. The following administrations participated in the Working Group of the Plenary.

Ad hoc 3:

Australia
Brazil
Federal Republic of Germany
France
Japan
India
Italy
Nigeria
Sweden
USSR
United Kingdom
United States of America

IATA were also represented.

3. The attached draft note from the Chairman of the Technical Working Group of the Plenary to the Chairman of Committee 4 was agreed.

M.A. JOHNSON
Chairman of the
Working Group of the
Plenary ad hoc 3

DRAFT

NOTE FROM THE CHAIRMAN OF THE TECHNICAL WORKING GROUP
OF THE PLENARY TO THE CHAIRMAN OF COMMITTEE 4

1. The Technical Working Group of the Plenary has considered in response to Document 173 the sharing possibilities of RDSS with existing authorized services in the proposed bands:

<u>Intended use</u>	<u>Frequency band</u>	<u>Proposed allocation</u>
user-to-satellite	1 610.0 - 1 626.5 MHz	Earth-to-space
satellite-to-user	2 483.5 - 2 500 MHz or 2 500.0 - 2 516.5 MHz	space-to-Earth
central earth station- to-satellite	6 525.0 - 6 541.5 MHz	not considered, but included for information only
satellite to central earth station	5 117.0 - 5 183 MHz	in-bound feeder link

with the purpose of determining suitable provisions (pfd's or power limits etc.) if appropriate.

2. The following information is provided to assist Committee 4 in its deliberations on the proposed modification of the Table of Frequency Allocations to accommodate RDSS.

3. 1 610.0 - 1 626.5 MHz

Allocations in this band include aeronautical radionavigation (primary), fixed (primary RR 730 in 17 Region 1 countries), fixed (secondary RR 727 in several Region 3 countries) and radioastronomy (secondary RR 734). (See also RR 722, RR 732 and RR 733.)

3.1 Interference to radioastronomy

The following documents were considered in relation to sharing with radioastronomy in this band:

CCIR Report 1050, Annex I, section 2.1.2

CCIR Report 224, Table I

Document 3, section 6.2.10

USA/24/818

Document USA/65

Document 202

3.1.1 The proposed use of this band could cause difficulties for radioastronomy as observations of the hydroxyl line are conducted at 1 610.6 - 1 613.8 MHz. The United States proposes time sharing whenever the mobile transmitter is within the vicinity of observatories: e.g. 25 km radius for land-based mobiles; and 150 km for airborne mobiles (see USA/24/818). The RDSS mobile transmission would be restricted to the first 200 ms in each one-second marks of UTC. It is noted, however, that the radius within which the proposed time sharing arrangement would apply (Radioastronomy Region) can be determined by individual administrations as might the division of time within each second of UTC. In some cases (in particular in Europe) this will presumably require bilateral or multi-lateral agreement. In addition the arrangement would only apply during periods in which an observatory wishes to conduct measurements (see Document USA/65).

3.1.2 Although continuous measurements are not necessary for most radio-astronomical measurements, it would preclude certain types of measurements, for example observation of pulsars.

3.1.3 There is some concern that control of the proposed time sharing arrangement may not be reliable which could have significant impact in those countries where radioastronomical observatories are near major conurbations. In the United Kingdom for example the time sharing arrangement would need to apply to virtually all airborne mobiles over the whole country which would presumably impact system capacity.

3.1.4 Since radioastronomical measurements are made under computer control and data reduction is a long process it may take many weeks or months before any interference is noted.

3.2 Sharing with fixed service

The second concern relating to sharing in this band is the possible mutual interference between an RDSS mobile transmitter and the fixed service, particularly in Europe where the band 1 550 - 1 645.5 MHz is allocated (under RR 730) for use by the fixed service in 17 countries on an equal primary basis.

The following documents were considered in relation to sharing with the fixed service:

CCIR Report 1050, Annex I, section 2.1

Document 3, Section 6.2.9

Document USA/67, section 2

USA/195/1

3.2.1 Interference to fixed service

3.2.1.1 The interference from a single RDSS mobile transmitter would consist of short bursts of noise approximately 20 ms long at intervals ranging from once per minute for certain aircraft to several times a day for some land-based users. The area within which a fixed service receiver could receive interference from an RDSS user will vary depending on the location, receiver noise and antenna gain of the receiving system but in general could extend to the horizon (CCIR Report 1050). For RDSS mobile transmitters located along the azimuth corresponding to the main beam of the radio-relay system, this potential interference range would extend to distances slightly over the horizon (Document USA/67). For other azimuths well outside the main beam this potential interference would be significantly smaller.

3.2.1.2 It was noted that a proposal to limit mobile transmitter e.i.r.p. to the limits specified in RR 2541 (e.g. +40+3 dBW in any 4 kHz band for $0^\circ < \theta \leq 5^\circ$) is given in USA/195. This limit is considerably above the e.i.r.p. used in the sharing calculations (-22.8 dBW/4 kHz).

3.2.2 Interference to RDSS

Interference to the RDSS satellite would occur if the fixed service transmitter antenna is pointing in the direction at which the geostationary satellite orbit appears to intersect the local horizon. The antenna discrimination of both the RDSS satellite and the fixed service antenna should usually be sufficient to prevent unacceptable interference to the RDSS satellite.

3.3 Sharing with aeronautical radionavigation service

4. 2 483.5 - 2 500 MHz

The band 2 483.5 - 2 500 MHz is part of the 2 400 - 2 500 MHz band designated to industrial, scientific and medical (ISM) applications by RR 752. Radio services operating in this band must accept harmful interference which may be caused by these applications. The band is also allocated to radiolocation, fixed and mobile service users.

The following documents were considered in relation to sharing in this band:

CCIR Report 1050, Annex I, section 2.2

Document 3, sections 6.2.9 and 6.10

Document 67, section 3

AUS/40(Add.1)471

I/97/19

USA/195/2

4.1 Sharing with ISM

ISM devices could cause interference to RDSS mobile receivers when in close proximity (within a few metres) and could result in a modest increase in a user's retransmission rate.

4.2 Sharing with radiolocation

CCIR Report 1050 observes that because of the great diversity of terrestrial radiolocation stations it is difficult to make a definitive statement as to the feasibility of sharing between the radiodetermination satellite service and radiolocation service. However, because of the limited area of operation of current radiolocation systems, antenna discriminations and signal processing techniques should limit mutual interference probabilities to acceptable levels.

4.3 Sharing with the fixed and mobile services

The potential mutual interference between RDSS and the fixed and mobile services in this band is possibly of most concern to many administrations.

4.3.1 Interference to fixed and mobile services

4.3.1.1 Interference to fixed service receivers from the RDSS satellite is likely when the receiver antenna is pointing in the direction of the satellite. This is likely to occur with transhorizon radio links when the satellite elevation is low, and with other links such as television outside broadcast when the satellite has a high elevation. The CCIR has determined limits of power flux density at the Earth's surface to protect fixed service systems in this band. It has been proposed that these limits (RR 2557) should be applied to RDSS (I/97/19). However, since these limits were based upon analyses described in Report 387, to determine the aggregate level of interference in a 2,500 km, 50 hops radio-relay system produced by satellites spaced every 3 degrees on the geostationary orbit higher limits might be applicable. The limits given in RR 2562 have been proposed (USA/195). In addition AUS/40/471 proposed -139 dB(W/m²) in any 4 kHz.

For convenience these limits are reproduced below:

RR. No.	2557	2562
Angle of arrival above horizontal plane (degrees σ)	dB(W/m ²) in any 4 kHz	
0 - 5	-154	-152
5 - 25	$-154 + 0.5 (\sigma - 5)$	$-152 + 0.75 (\sigma - 5)$
25 - 90	-144	-137

4.3.1.2 At low elevation angles the RDSS satellite is expected to have approximately 20 dB discrimination towards the radio-relay receiver resulting in a pfd of -165.4 dBW/4 kHz in the 2 degree case. Typical thermal noise power (KTB) characteristic for a transhorizon receiver input in a 2.7 MHz bandwidth and for a noise temperature of 650°K is around -165 dBW/4 kHz. The level of interference is therefore equivalent to the receiver thermal noise resulting in a 3 dB reduction in C/N. Considering this would occur only when the receiver antenna is pointing in the direction of the satellite the level of this interference might be acceptable. It is noted, that the levels quoted in RR 2557 and RR 2562 are clearly inadequate, however, the limits for a fixed service using tropospheric scatter are given in RR 2560 and RR 2564.

4.3.1.3 Considering the case of television outside broadcast radio-relay links as another example of worst case condition, these receivers are likely to have considerable gain in the direction of a high altitude satellite as they often operate to aircraft. Typical thermal noise power (KTB) at receiver input in a nominal 20 MHz bandwidth and for a noise temperature of 200°K nominal would be approximately -133 dBW.

Assuming 12 dB receiver antenna gain in the direction of the satellite would require a limit to avoid interference of -151 dB(W/m²) in any 4 kHz.

4.3.2 Interference to RDSS

It is recognized that the potential for interference to RDSS mobile receivers is high within line of sight conditions. However, since the number of current fixed and mobile assignments in the 2 484 - 2 500 MHz band is apparently few the interference would be localized and could result in an increase in user retransmission rates.

5. 2 500 - 2 516.5 MHz

5.1 The frequency band 2 500 - 2 516.5 MHz forms part of the band 2 500 - 2 655 MHz, which has already been allocated for fixed, mobile and broadcasting satellite services for all the three Regions. In addition, in Region 2, the band 2 500 - 2 655 MHz has been allocated for fixed satellite service. In Region 3, the band 2 500 - 2 535 MHz has been allocated for fixed satellite service and mobile satellite service. As far as sharing of fixed satellite and broadcasting satellite services with fixed and mobile services is concerned, the power flux-density limits given in RR 2562 and RR 2564 are applicable. The regulatory provisions RR 762 and RR 764 include provisions for ensuring compatibility between space services and tropospheric scatter radio-relay links. No additional constraints would be imposed on fixed services in this band by the introduction of RDSS.

5.2 Sharing with terrestrial services

The criteria for sharing between space and terrestrial services including tropospheric radio-relay links exist in the band 2 500 - 2 516.5 MHz band and consideration could be given to adopting the same or similar criteria for frequency sharing between RDSS and terrestrial services.

5.3 Sharing with other space services

Appendix 29 to the Radio Regulations provides the method of calculation for determining if coordination is required between geostationary-satellite networks sharing the same frequency band. This method is based on the concept that the noise temperature of a system subject to interference increases as the level of the interfering emission increases. It is therefore generally applied irrespective of modulation characteristics of satellite networks. This procedure could be applicable for use as the criteria for frequency sharing between RDSS and other space services.

Moreover, sharing of the band by more than one space service is not uncommon. The band 2 500 - 2 535 MHz has already been allocated for broadcasting and fixed satellite services.

6. 5 117 - 5 183 MHz

The band 5 117 - 5 183 MHz is allocated under RR 797 to the fixed-satellite service and the inter-satellite service for use as feeder links serving the aeronautical radionavigation and/or aeronautical mobile (R) service, subject to agreement obtained under the procedure set for in Article 14. This band is also allocated on a world-wide basis to the aeronautical radionavigation service with use by the international microwave landing system (MLS), (RR 796) taking precedence. MLS equipment, however, is being developed and distributed only in the 5 030 - 5 090 MHz portion of the spectrum.

The following documents were considered with regard to sharing in this band:

Report 1050, Annex I, section 2.3

Document 3, section 6.2.9

Document 67, section 4

USA/24/86

AUS/40/35

SDN/90/3

I/87/21.

6.1 Interference to MLS receivers

6.1.1 The portion of the MLS that could operate in this band is a mobile receive-only station used on board aircraft for final approach and landing at major airports. Indications are that the system would have a noise temperature near 2,600°K and a receive antenna gain of about 3 dBi.

6.1.2 Using these hypothetical characteristics and a maximum RDSS satellite power flux-density of -159 dB(W/m²) in any 4 kHz band, a noise-to-interference ratio in excess of 30 dB is obtained. This value would be sufficient to protect MLS receivers and thus there should be no sharing difficulties encountered in this band.

6.2 Interference to RDSS central earth station

Any potential interference to the central earth station from MLS transmitters would be controlled via proper earth-station site selection and coordination so as to avoid airport facilities utilizing MLS systems.

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Article 55.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

ARTICLE 55

Operators' Certificates for Ship
Stations and Ship Earth Stations

Section I. General Provisions

NOC

CEPT-10/17/1

MOD 3860

1. (1) The service of every ship radiotelegraph station using Morse telegraphy shall be performed by an operator holding a certificate issued or recognized by the government to which the station is subject.

CEPT-10/17/2

MOD 3861

(2) The service of every ship ~~radiotelephone~~ station not using Morse telegraphy and every ship earth station shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is subject. Provided the station is so controlled, other persons besides the holder of the certificate may use the equipment.

CEPT-10/17/3

SUP 3862

NOC 3863

NOC 3863.1

B/57/192

ADD 3863A

(5) The service of every ship station and ship earth station using the frequencies and techniques in accordance with Chapter NIX for automated communications shall be controlled by a person holding a certificate issued or recognized by the government to which the station is subject. Provided the station is so controlled, other persons besides the holder of the certificate may use the equipment.

NOC 3864 - 3866

CEPT-10/17/4

MOD 3867

(2) When it is necessary to employ a person without a certificate or an operator not holding an appropriate certificate as a temporary operator, his performance as such must be limited solely to ~~signals~~ distress, urgency and safety alerts, messages relating thereto, messages relating directly to the safety of life and urgent messages relating to the movement of the ship. Persons employed in these cases are bound by the provisions of No. 3877 regarding the secrecy of correspondence.

NOC 3868 - 3875

PHL/77/75

USA/24/511 MOD 3876

d) The issuing or recognizing administration;

NOC 3877

CAN/25/343

GRC/70/1 MOD

Section II. Categories of Certificates for
Ship Station and Ship Earth Station Operators
including certificates for the operation of
automated communication equipment¹

[**]

ADD ¹This equipment uses techniques that are entirely or largely automated and includes equipment carried to participate in the GMDSS.

[**] Chairman of Working Group 6-A

CEPT-10/17/7
(MOD) 3878 5.(1) There are four categories of certificates
for radiotelegraph operators^{+ 2}, namely:

NOC 3879-3882

CEPT-10/17/8
ADD 3882A (1A) There are two categories of certificates
for operators² of ship stations complying with
the provisions of Chapter NIX, namely:

CEPT-10/17/9
ADD 3882B a) the general operating certificate for
automated communications in the maritime
mobile service³.

CEPT-10/17/10
ADD 3882C b) the restricted operating certificate for
automated communications in the maritime
mobile service.

CEPT-10/17/11
(MOD) 3883 (2) There are two categories of radiotelephone
operators^{+ 2} certificates, general and
restricted.

CEPT-10/17/12
MOD 3878.1) ^{+ 2} As regards the employment of operators
3882A.1) holding the different certificates, see
3883.1) Article 56.

[**] ADD 3882.3 ³ This certificate may be issued as part of
part of the requirements for a first or
second class radioelectronic operators
certificate by administrations requiring
maintenance to be performed at sea by the
operator of the equipment, in accordance
with the qualifications and knowledge
requirements specified in the International
Convention on Standards of Training
Certification and Watchkeeping.

[**] Chairman of Working Group 6-A

CEPT-10/17/13

MOD 3884

6. (1) The holder of a radiocommunication operator's general certificate, or of a first-class or second-class radiotelegraph operator's certificate, may carry out the radiotelegraph or radiotelephone radiocommunication service of any ship station or ship earth station.

CEPT-10/17/14

ADD 3884A

(1A) For ship stations complying with the provisions of Chapter NIX:

CEPT-10/17/15

ADD 3884B

a) the holder of a general operating certificate for for automated communications may carry out the radiocommunication service on any ship station using the frequencies and techniques in compliance with Chapter NIX;

CEPT-10/17/16

ADD 3884C

b) the holder of a restricted operating certificate for automated communications may carry out the radiocommunication service on a ship station using the frequencies and techniques in compliance with Chapter NIX when sailing within range of VHF coast stations.

CEPT-10/17/17

MOD 3885

(2) The holder of a radiotelephone operator's general certificate may carry out the radiotelephone service of any ship station or ship earth station (see Nos. 3884B and 3884C).

CEPT-10/17/18

ADD 3885A

(2A) The holder of a general operating certificate for automated communications may carry out the radiocommunication service of any ship station not using Morse telegraphy, and of any ship earth station.

NOC 3886-3890

NOC Section III. Conditions for the Issue of Operators' Certificates

NOC 3891 A. General

NOC 3892

NOC 3893 (2) Each administration is free to fix the number of examinations necessary to obtain each certificate.

MOD 3894 8.9. (1) The administration which issues a certificate may, before authorizing an operator to carry out the service on board a ship, require the fulfilment of other conditions (for example: experience with automated communication equipment; further technical and professional knowledge relating particularly to navigation; further training and knowledge relating to the repair of automated communication equipment as specified in the International Convention on Standards of Training Certification and Watchkeeping; physical fitness; etc.).

[**]

NOC 3895-3896

[**] ADD 3896A (4) Administrations should take whatever steps they consider necessary to ensure the continued availability of maritime radio communication equipment in accordance with the requirements of the International Convention on the Safety of Life at Sea (SOLAS).

NOC 3897 B. Radiocommunication Operators' General Certificate for the Maritime Mobile Service

NOC 3898-3949

CEPT-10/17/19

ADD 3949A G. General and Restricted Certificates for Automated Communications

[**] ADD 3949AA The provision in No. 3870 does not apply to GMDSS.

CEPT-10/17/20

ADD 3949B 18A. The general operating certificate for automated communications is issued to candidates who have given proof of the knowledge and professional qualifications enumerated below (see also Nos. 3882A and 3884B):

USA/24/537

ADD 3949BA a) a knowledge of the elementary principles of the GMDSS;

CEPT-10/17/21

ADD 3949C b) a knowledge of the principles of equipment operating in conformity with Chapter NIX;

CEPT-10/17/22

ADD 3949D c) detailed knowledge of the practical operation and adjustment of equipment operating in conformity with Chapter NIX;

CEPT-10/17/23

ADD 3949E d) ability to communicate correctly by radiotelephony, direct-printing telegraphy and digital selective calling;

CEPT-10/17/24

ADD 3949F e) ability to read, write and speak one of the working languages of the Union for the satisfactory exchange of radiocommunications ;

[**] Chairman of Working Group 6-A

CEPT-10/17/25
ADD 3949G

- f) detailed knowledge of the Regulations applying to radiocommunication by the use of equipment operating in conformity with Chapter NIX, knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio and knowledge of the Regulations relating to the prevention of unauthorized transmissions and harmful interference.

CEPT-10/17/26
ADD 3949H

18B. The restricted operating certificate for automated communications is issued to candidates who have given proof of the knowledge and professional qualifications enumerated below (see also Nos. 3882A and 3884C):

USA/24/542

ADD 3949HA

- a) a practical knowledge of GMDSS operation and procedure;

CEPT-10/17/28
ADD 3949J

- b) knowledge of the practical operation and adjustment of equipment operating in conformity with Chapter NIX for ships sailing within range of VHF coast stations;

CEPT-10/17/29
ADD 3949K

- c) ability to communicate correctly by radiotelephony and digital selective calling;

CEPT-10/17/30
ADD 3949L

- d) ability to read, write and speak one of the working languages of the Union to the extent necessary for the exchange of radiocommunications ;

CEPT-10/17/31
ADD 3949M

- e) knowledge of the Regulations which apply to automated radiocommunication when sailing within designated A1 areas¹.

[**]

CEPT-10/17/32
ADD 3949N

18C. The operating certificate shall show whether it is a general certificate or a restricted certificate.

CEPT-10/17/33
ADD 3949O

18D. The requirements of No. 3949H may be relaxed for holders of a restricted operating certificate for automated communications when operating a ship station which is confined to a limited area specified by the administration concerned. In such cases the certificate shall be suitably endorsed.

CAN/25/372
MOD

CAN/25/372A

Section IV. Authorization and Qualifying Service

ADD 3949V The holder of a general certificate for the operation of equipment used for automated communications is authorized to embark as chief operator of a ship station comprising digital selective calling equipment, direct-printing telegraphy equipment, emergency position-indicating radiobeacons (EPIRBs), satellite EPIRBs, and radiotelephone equipment.

ADD 3949M.1 ¹ In some parts of the world where VHF networks are not continuous, this may include A2 areas.

[**] Chairman of Working Group 6-A

CAN/25/373

ADD 3949W The holder of a restricted certificate for the operation of equipment used for automated communications is authorized to embark as the operator of a ship station comprising digital selective calling equipment, direct-printing telegraphy equipment, emergency position-indicating radiobeacons (EPIRBs), satellite EPIRBs, and radiotelephone equipment. The holder of this certificate may also be the chief operator of a station which is located on a ship sailing only

[**] within designated sea areas A1¹.

NOC 3950-3953

NOC 3954
to NOT allocated.
3978

ADD 3949W.1 ¹ [see 3882.3]

[**] Chairman of Working Group 6-A

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Article 56.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1

ARTICLE 56

B/57/247
MOD

Personnel of Stations in the Maritime Mobile
Service and in the Maritime Mobile-Satellite
Service

CEPT-10/17/35
MOD

Section I. Personnel of Coast Stations and Coast
Earth Stations.

B/57/248
MOD 3979

§ 1. Administrations shall ensure that the
staff on duty in coast stations and in coast earth
stations shall be adequately qualified to operate
the stations efficiently.

CEPT-10/17/36
MOD

Section II. Class and Minimum Number of Operators for
Stations on board Ships Using Non-Automated
Communications

NOC 3980 - 3986

CEPT-10/17/37
ADD

Section III. Class and Minimum Number of Operators for
Stations on board Ships Using Automated
Communications

CAN/25/375

ADD 3987 Each government shall ensure that the personnel operating ship
stations which are equipped for automated communications and which are
located on board ships of its own nationality shall be adequately
qualified to operate the stations efficiently.

CEPT-10/17/39
ADD 3988

The personnel of ship stations in the public correspondence-
service shall, having regard to the provisions of Article 55,
include at least:

CEPT-10/17/40
ADD 3989

a) for ship stations for which a radio installation is
made compulsory by international agreements and which
are using the frequencies and techniques in
compliance with Chapter NIX:

CEPT-10/17/41
ADD 3990

- one holder of a general operating certificate for
automated communications in the maritime mobile
service (see No. 3882B) or of a radiocommunication
operator's general certificate (see No. 3879), or
of a first-class radiotelegraph operator's
certificate (see No. 3880), or of a second-class
radiotelegraph operator's certificate (see No. 3881);

CEPT-10/17/42
ADD 3991

- where the ship station operates entirely within range
of VHF coast stations, one holder of a restricted
operating certificate for automated communications
(see No. 3882C), or of a radiotelephone operator's
general certificate (see No. 3883);

[**]

ADD 3991A The administration is responsible to take all steps it considers necessary to ensure that all GMDSS equipment is available for use when it is needed¹. At least one holder of the certificate mentioned in No. 3990 shall be designated principal operator during distress incidents.

CEPT-10/17/43

ADD 3992

b) for ship stations for which a radio installation is not made compulsory by international agreements and which are using the frequencies and techniques in compliance with Chapter NIX:

CEPT-10/17/44

ADD 3993

- one holder of an appropriate certificate at the discretion of the government concerned, but at least a holder of a restricted operating certificate for automated communications (see No. 3882C), or a radiotelephone operator's general certificate (see No. 3883).

3994

to NOT allocated.
4011

[**]

ADD 3991A.1¹ The administration should take steps as it considers appropriate in accordance with the International Convention on the Safety of Life at Sea (SOLAS).

[**] Chairman of Working Group 6-A

DRAFTING GROUP 6-B-1-1**NOTE BY THE CHAIRMAN OF DRAFTING GROUP 6-B-1-1**

Drafting Group 6-B-1-1 was requested to review Article 51, MOD 3651, orders of priority 7, 8, 9 and 10 and consider what changes, if any, are appropriate.

Attached is the considered view of the Drafting Group on these four orders of priority.

Orders of priority 1 to 6 have already been agreed by Sub-Working Group 6-B-1; therefore for completeness the whole of MOD 3651 has been included in the attachment.

G.V. JEFFERY
Chairman of Drafting Group 6-B-1-1

Attachment: 1

ATTACHMENT

ARTICLE 51

- MOD 3651 § 1. The order of priority for communication¹ in the aeronautical mobile service and the aeronautical mobile-satellite service shall be as follows, except where impracticable in a fully automated system in which, nevertheless, Category 1 shall receive priority;
- NOC 1. Distress calls, distress messages, and distress traffic.
- NOC 2. Communications preceded by the urgency signal.
- MOD 3. ~~Communications preceded by the safety signal.~~ Communications relating to radio direction finding.
- MOD 4. ~~Communications relating to radio direction finding.~~ Flight safety messages.
- MOD 5. ~~Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operations.~~ Meteorological messages.
- MOD 6. ~~Communications relating to the navigation, movements and needs of aircraft and ships, and weather observation messages destined for an official meteorological service.~~ Flight regularity messages.
- MOD 7. ETATPRIORITENATIONS - Radiotelegrams Messages relating to the application of the United Nations Charter.
- MOD 8. ETATPRIORITE - Government ~~radiotelegrams messages with priority and Government~~ calls for which priority has been expressly requested.
- NOC 9. Service communications relating to the working of the telecommunication service or to communications previously exchanged.
- MOD 10. ~~Government communications other than those shown in 8 above, ordinary private communications, RCT¹ radiotelegrams and press radiotelegrams.~~ Other aeronautical communications.
-

WORKING GROUP 5 AD HOC 1

Draft

RESOLUTION No. [COM5/1]

noting - approved as in Document DL/38(Rev.2)

noting further

(NOR/GRC)

a) that to ensure compatibility between ships following, on the one hand, Chapter IX and, on the other, Chapter N IX of the Radio Regulations, all ships subject to the 1974 SOLAS Convention will continue to use applicable existing distress and safety provisions until the GMDSS has been implemented fully;

b) approved as in Document DL/38(Rev.2);

noting further

c) that it would be costly for administrations to maintain in parallel for an excessive period of time, shore-based facilities necessary to support both the existing distress and safety system and the GMDSS;

Proposal by Spain

d) that discontinuance of the existing shore-based distress and safety services would deprive ships not subject to the SOLAS Convention of the possibility of obtaining assistance from those services, and that administrations should therefore encourage such ships to join the GMDSS before such time as the services are discontinued;

considering

a) approved as in Document DL/38(Rev.2);

b) approved as in Document DL/38(Rev.2);

recognizing

a) that to assist IMO, the provisions of Chapter N IX should enter into force prior to the initial implementation date of the GMDSS;

WORKING GROUP 5 AD HOC 1

Note by the Chairman of Working Group 5 Ad Hoc 1

In order to facilitate consideration of Resolution [COM5/1], it is requested that the following matters be considered by the Working Group:

- 1) What is the date that Chapter NIX should enter into force?

Example: When the Final Acts come into force.

- 2) Discussion of the intent of N2930 and 2930.

- 3) What are the provisions of Chapter IX that should be maintained by coast stations and/or ship stations following the provisions of Chapter NIX until final implementation?

Example: 500 kHz distress system, except for vessels complying with Chapter NIX;
2182 kHz distress system;
156.8 MHz distress system.

- 4) What are the provisions of Chapter IX that should be maintained after the full implementation of the GMDSS?

<u>Example</u> :	500 kHz distress system;	} For non-SOLAS vessels and coast stations complying with Chapter IX
	2182 kHz distress system;	
	156.8 MHz distress system.	

R.C. McINTYRE
Chairman of Working Group 5 Ad Hoc 1

WORKING GROUP 4-ANote by the Chairman of Working Group 4-A

DRAFT NEW FOOTNOTES (IN CONNECTION WITH RECOMMENDATION No. 703)

ADD 609A Recognizing that the use of this band by the fixed and mobile services in application of RR 342 may cause harmful interference to the radionavigation satellite service, administrations are urged not to authorize such uses.

609A should be added in Article 8 in the bands 149.95 - 150.05 MHz and 399.9 - 400.05 MHz. This addition would replace Recommendation No. 703.

It is suggested that Working Group 4-A considers a similar addition in the band 406.0 - 406.1 MHz.

ADD 649A Recognizing that the use of this band by the fixed and mobile services in application of RR 342 may cause harmful interference to the mobile-satellite (Earth-to-space) service, administrations are urged not to authorize such use.

J. KARJALAINEN
Chairman of Working Group 4-A

WORKING GROUP 5 AD HOC 1

NOTE FROM THE CHAIRMAN OF WORKING GROUP 5 AD HOC 1

During the course of the fifth meeting of WG 5 Ad Hoc 1 and discussion on DL/47, item 1, concerning the entry into force of Chapter N IX, it was suggested that an explanatory note be provided on the impact of Chapter N IX entering into force. The following comments are offered in this regard.

1. If Chapter N IX enters into force with the Final Acts of the Conference no action is imposed on, or required of, administrations wishing to continue to use the provisions of Chapter IX. Such a decision would only allow IMO, at some future date as agreed by Administrations at a future SOLAS Conference^{*)}, to make a decision concerning the implementation (start and completion dates) of the implementation of the GMDSS.
2. If Chapter N IX enters into force after the Final Acts of the 1987 Mobile Conference, administrations wishing to continue to use the provisions of Chapter IX may do so. However, in this case Administrations wishing to use the provisions (and frequencies) of Chapter N IX will be prevented from doing so and be prevented from gaining operational experience with the new system.
3. When the new SOLAS Amendments come into force then administrations signatory to that Convention will be required to fit their vessels subject to that Convention in accordance with the New Chapter IV of SOLAS. The operational procedures and frequencies to be used in this system will be set out in Chapter N IX.
4. Administration wishing to use the existing Chapter IX for their vessels not subject to SOLAS would be allowed to do so before, during and after the full implementation of the GMDSS.

R.C. McINTYRE
Chairman of Working Group 5 ad hoc 1

^{*)} The IMO Body, Conference or Expanded Maritime Safety Committee, which adopts the amendments to the 1974 SOLAS Convention.

WORKING GROUP 5 AD HOC 1

NOTE FROM THE CHAIRMAN OF WORKING GROUP 5 AD HOC 1

The attached information is presented at the request of the Chairman of Working Group 5 ad hoc 1 and is based on a contribution from the Greek delegation:

A. For consideration with Resolution No. [COM5/1]:

invites also

the IMO, when deciding the dates of implementation of the GMDSS, to take into account:

1. Recommendation No. 322 which addresses the geographic distribution of coast stations watching the frequency necessary for the implementation of the GMDSS;
2. the cost to administrations of operating both systems concurrently over a lengthy period;
3. the savings to administrations that might accrue from the operation of an automated system such as the GMDSS;
4. the need to spread the economic burden to administrations over a reasonable period of time;
5. the possibility of a progressive implementation of the GMDSS by bringing into effect component parts of the system particularly those having maximum benefit to the safety of life at sea.

B. Following SUP of Resolution No. 321, insert in Resolution No. [COM5/1], under "recognizing":

"that the introduction of the GMDSS will offer the opportunity to gain administrative, technical and operational experience with the new system;"

C. Following SUP of Recommendation No. 201, insert in Resolution No. [COM5/1], probably in combination with B above:

"that the experience gained from the operation of the GMDSS should be used to ensure that the system provides all improved service;

that the experience gained from the operation of the GMDSS should be used to improve the distress and safety system".

R.C. McINTYRE
Chairman of Working Group 5 ad hoc 1

WORKING GROUP 6-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-A

In order to assist Working Group 6-A, attached is a consolidated document concerning proposals on Appendix 9.

R. SWANSON
Chairman of Working Group 6-A

Attachment: 1



ATTACHMENT

APPENDIX 9

NOC

Service Documents¹

(See Articles 10, 12, 13, 17 and 26)

NOC

List I. International Frequency List

NOC

List II. List of Fixed Stations Operating International Circuits

NOC

List IV. List of Coast Stations

NOC

Part I. Tables of general or specific interest

NOC

Part II. Alphabetical index of coast stations

NOC

Part III. Particulars of coast stations

Names of countries arranged in alphabetical order of abbreviations.
Names of stations in alphabetical order.

Name of the station ¹		Call sign ^{2, 3}		Emission			Service		Charges ^{9, 10}	Geographical coordinates of the transmitting antenna (longitude and latitude in degrees, minutes and seconds)	Remarks ^{11, 12}
Frequencies kHz or MHz	Class	Power (kW) ⁶	Nature ^{7, 8}	Hours of service (UTC)							
1	2	3a ⁴	3b ⁵	4	5	6	7	8	9	10	

NOC

1 - 12

CUB/98/223
ADD

13 Indicate whether the station belongs to the HF Digital Selective Calling Global Alerting Plan and indicate the frequencies watched in Column 3b.

CUB/98/224
ADD

14 Indicate connections with a Rescue Coordination Centre as specified in the General Information.

Note - ADD 13) and ADD 14), modify Column 10 (Remarks) where they should appear as: "Remarks 11, 12, 13, 14".

NOC *Part IV. Inland telegraph rates, limitrophic rates, etc.*

NOC *List V. List of Ship Stations*

NOC *Particulars of ship stations*

NOC Column 1 to Column 3

NOC Column 4

NOC a)

CAN/25/399

MOD b) types and number of emergency position-indicating radiobeacons (optional), the operating frequency being indicated by one of the following letters:

A = 2 182 kHz
B = 121.5 MHz
C = 243 MHz
D = 406.025 MHz

A figure following the letter indicates the number of radiobeacons. The letter "X" signifies that the number of radiobeacons has not been communicated.

Reason: To provide a list indicator for new EPIRBs authorized to operate on 406.025 MHz.

CUB/98/225

MOD

b) types and numbers of emergency position-indicating radiobeacons and search and rescue radar transponders. The operating frequency is indicated by one of the following letters:

A - 2 182 kHz
B - 121.5 MHz
C - 243 MHz
D - 406 - 406.1 MHz
E - 9 200 - 9 500 MHz

Reasons: To include information for the FGMDSS which should appear in this document.

TUR/59/74
MOD

b) Optionally, types and number of emergency position-indicating radiobeacons, radiodetermination-satellite service transceivers, and search and rescue transponders, the operating frequency being indicated by one of the following letters:

A= 2182 kHz
B= 121.5 MHz
C= 243 "
D= 1610-1626.5 MHz
E= 406-406.1 "
F= 9200-9500 "
G= 156.525 "

Reason: To provide a list of indicators for the radiodetermination-satellite service, new EPIRB's and search and rescue transponders which are authorized or proposed elsewhere.

TZA/132/17
MOD

(b) types and number of emergency position-indicating radiobeacons (optional), the operating frequency being indicated by one of the following letters:

A = 2182 KHz
B = 121.5 MHz
C = 243 MHz
*D =

A figure following the letter indicates the number of radiobeacons. The letter "X" signifies that the number of radiobeacons has not been communicated.

* To include EPIRBs authorized to operate in the band 406 to 406.1 MHz.

USA/24/656
MOD

b) optionally, types and number of emergency position-indicating radiobeacons ~~(optional)~~, radiodetermination-satellite service transceivers, and search and rescue transponders, the operating frequency being indicated by one of the following letters:

A = 2182 kHz
B = 121.5 MHz
C = 243 MHz
D = 1610-1626.5 MHz
E = 406-406.1 MHz
F = 9200-9500 MHz
G = 156.525 MHz

Reason: To provide list indicators for the radio-determination-satellite service, new EPIRB's, and search and rescue transponders, which are authorized or proposed elsewhere.

NOC Columns 5 - 12

NOC **List VI. List of Radiodetermination and Special Service Stations**

NOC **Part A. Alphabetical index of stations.**

NOC **Part B. Particulars of stations.**

NOC 1 - 11

MOD 12.) See Document 244 (Report by the Chairman of Sub-
) Working Group 6-B-2 to the Chairman of Working
MOD 13.) Group 6-B)

NOC **List VIII. List of International Monitoring Stations**

NOC **List VIII A. List of Space Radiocommunication Stations and
Radio Astronomy Stations**

WORKING GROUP 5 AD HOC 1

NOTE BY THE CHAIRMAN OF WORKING GROUP 5 AD HOC 1

In order to facilitate the consideration of Resolution [COM5/1], it is requested that the following matter be considered by the Working Group:

recognizing

- b) that some elements of the GMDSS described in Chapter N IX, particularly DSC, will not be fully operational in all parts of the world on the date that the Final Acts of this Conference come into force;

resolves

- a) that Chapter N IX will come into force with the Final Acts of this Conference;
- b) that until full implementation of the GMDSS administrations shall continue to follow the provisions of Chapter IX;
- c) that during the period between the date that the Final Acts of this Conference come into force and the initial implementation date of the GMDSS decided by IMO those using the provisions of Chapter N IX should take account of the stations participating in the GMDSS;

invites

the Administrative Council to place on the agenda of the next competent conference Chapters IX and N IX with a view to considering any changes required to improve the distress and safety system;

requests the Secretary-General

to communicate this Resolution to IMO and the International Civil Aviation Organization (ICAO).

R.C. McINTYRE
Chairman of Working Group 5 ad hoc 1

COMMITTEE 5

Document 223

As requested by Delegations of the USSR and the United States, the two following questions have been addressed to the ITU legal advisor for appropriate comments:

- a) What is the relationship between the term "rescue craft" in Document 223 and the terms "medical transport" and "craft" used in RR 3209?
- b) Is there a precise and internationally accepted definition of the term "rescue craft" in the Second Geneva Convention? If so, could this definition be given to Committee 5?

P.E. KENT
Chairman of Committee 5

COMMITTEE 6

NOTE FROM THE CHAIRMAN OF COMMITTEE 6

The following non-exhaustive principles are put forward to assist in the consideration of Articles 55 and 56:

- 1) The need to offer administrations flexibility in the choice of method of ensuring availability of communication functions in the GMDSS. This flexibility should be within a limited number of known and agreed methods.
- 2) Recognition of the requirements created by the GMDSS for certification covering:
 - Radio electronics operator
 - General GMDSS operating
 - Technical certificate
- 3) Recognition of the provision of the IMO and the convention on standards, training, certification and watchkeeping.

I.R. HUTCHINGS
Chairman of Committee 6

WORKING GROUP 6-B

NOTE BY THE CHAIRMAN OF WORKING GROUP 6-B

In order to assist Working Group 6-B, attached is a consolidated document concerning proposals on the definition for the aeronautical mobile-satellite service in Article 1.

Y. HIRATA
Chairman of Working Group 6-B

Annex: 1

ANNEX

ARTICLE 1

Terms and definitions

Section III. Radio Services

PRG/61/1

ADD 34A 3.15A Aeronautical Mobile (R) Service: a mobile service on national and international civil air routes, between aircraft stations and aeronautical stations; where aeronautical stations are mainly responsible for the safety and regularity of air navigation.

Reasons: Need for a definition of the aeronautical mobile (R) service.

E/38/1

ADD 34A 3.15A Aeronautical mobile (R) service: An aeronautical mobile service for communications related to safety and regularity of flight along national or international civil air routes.

URS/130/1

ADD 34A Aeronautical Mobile (R) Service: a mobile service between aircraft stations and aeronautical stations, or between aircraft stations; where aeronautical stations are responsible for the safety and regularity of air navigation on national and international civil air routes.

VTN/49/4

ADD 34A 3.15A Aeronautical mobile service (R): A mobile service between aircraft stations and those aeronautical stations (primarily concerned with the safety and regularity of flight) along national or international civil air routes.

PRG/61/2

ADD 34B 3.15B Aeronautical Mobile (OR) Service: a mobile service between aircraft stations in general and aeronautical stations; where aeronautical stations are not mainly responsible for the aeronautical mobile service on national and international civil air routes.

Reasons: Need for a definition of the aeronautical mobile (OR) service.

E/38/2

ADD 34B 3.15B Aeronautical mobile (OR) service: An aeronautical mobile service for communications related to flight outside national or international civil air routes.

Reasons: It would be useful for these two important definitions to appear in Article 1 with texts based precisely on Numbers 3630 and 3631, respectively of Article 50 of the Radio Regulations, which specify the class of communications to which categories (R) and (OR) of the aeronautical mobile service refer.

URS/130/2

ADD 34B Aeronautical Mobile (OR) Service: a mobile service between aircraft stations and aeronautical stations, or between aircraft stations; where aeronautical stations are responsible for safety of air navigation on other than national and international civil air routes.

Reasons: To introduce the definitions of the aeronautical mobile (R) service and aeronautical mobile (OR) service to the Radio Regulations.

VTN/49/5

ADD 34B 3.15B Aeronautical mobile service (OR): An aeronautical mobile service other than aeronautical mobile service (R).

PRG/61/3

ADD 35A 3.16A Aeronautical Mobile-Satellite (R) Service: a mobile-satellite service on national and international civil air routes, between aircraft earth stations and aeronautical earth stations; where the aeronautical earth stations are mainly responsible for ensuring the safety and regularity of air navigation.

Reasons: Need for a definition of the aeronautical mobile-satellite (R) service.

PRG/61/4

ADD 35B 3.16B Aeronautical Mobile-Satellite (OR) Service: a mobile-satellite service between aircraft earth stations and aeronautical earth stations; where aeronautical earth stations are not mainly responsible for the aeronautical mobile-satellite service on national and international civil air routes.

Reasons: Need for a definition of the aeronautical mobile-satellite (OR) service in case the service is used by satellite.

VTN/49/6

ADD 45A 3.26A Aeronautical mobile-satellite service (R): A mobile satellite service in which earth stations are located on board aircraft (and primarily concerned with the safety and regularity of flight) along national or international civil air routes.

VTN/49/7

ADD 45B 3.26B Aeronautical mobile-satellite service (OR): An aeronautical mobile-satellite service other than aeronautical mobile-satellite service (R).

Reasons: There are no definitions of those services in Article 1 of the Radio Regulations.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/56-E
3 October 1987
Original: French

WORKING GROUP 4 AD HOC 2

NOTE BY THE CHAIRMAN OF
WORKING GROUP 4 AD HOC 2

In order to assist Working Group 4 ad hoc 2, a list of titles and references of the new draft Resolutions within the Working Group's purview is annexed hereto.

T. BøE
Chairman of Working Group 4 ad hoc 2

Annex: 1

ANNEX

Group I

Paired frequencies reserved for narrow-band
direct-printing telegraph and data transmission systems

CEPT-13/20/11
ADD

RESOLUTION No. C

DT/48 p.5 (F) Relating to the Use of Notification of the Paired
p.6 (E/S) Frequencies Reserved for Narrow-Band Direct-Printing
Telegraph and Data Transmission Systems in the HF Bands
Allocated to the Maritime Mobile Service¹
(see Appendix 31A)

CEPT-13/20/12
ADD

RESOLUTION No. D

DT/48 p.7 (F) Relating to the Use and Notification of the Additional
p.8 (E/S) Paired Frequencies Reserved for Radiotelephony in the
HF Bands Allocated to the Maritime Mobile Service

USA/24/791
ADD

RESOLUTION No. A11

DT/48 p.39 (F) Relating to the Establishment of Procedures for
p.40 (E/S) the Use and Notification of the Paired Frequencies
for Narrow-Band Direct-Printing Telegraph
and Data Transmission Systems

USA/24/792
ADD

RESOLUTION No. A12

DT/48 p.40 (F) Relating to the Transfer of Paired Frequency
p.42 (E) Assignments Reserved for Narrow-Band
p.41 (S) Direct-Printing Telegraph and Data Transmission Systems

CAN/25/501
ADD

RESOLUTION No. D

DT/48 p.61 (F) Relating to the Notification and Use
p.63 (E) of Paired Frequencies Reserved for
p.60 (S) Narrow-Band Direct-Printing Telegraph and
Data Transmission Systems in the HF Bands Allocated
to the Maritime Mobile Service (Appendix 32)¹

CAN/25/499
ADD

RESOLUTION No. B

DT/48 p.58 (F) Relating to the Need for an Allotment Plan
p.59 (E) for Paired Frequencies for Narrow-Band
p.56 (S) Direct-Printing (NBDP) and Data Transmission Systems

Group II

Transfer of frequency assignments

USA/24/790
ADD

RESOLUTION No. A10

DT/48 p.37 (F) Relating to the Transfer of Frequency Assignments
p. 38 (E/S) of Stations Operating in the Bands Allocated
Exclusively to Coast Radiotelegraphy in the
Maritime Mobile Service Between 4 000 and 23 000 kHz

URS/32/172
ADD

RESOLUTION USSR .../B

DT/48 p.47 (F/S) Relating to the Transfer of Frequency Assignments of
p.50 (E) Coast Radiotelegraph Stations Operating in the Bands
Allocated Exclusively to the Maritime Mobile Service
Between 4 000 and 23 000 kHz

Group III

Miscellaneous

CEPT-13/20/10
ADD

RESOLUTION No. B

DT/48 p.2 Relating to the Transition from Morse Telegraphy (Calling
(F/E/S) and Working Frequencies) to Narrow-Band Direct-Printing
Telegraphy in the Bands Between 4 000 kHz and 27 000 kHz
Allocated Exclusively to the Maritime Mobile Service

CEPT-13/20/13
ADD

RESOLUTION No. E

DT/48 p.12 (F/S) Relating to the Implementation of the Revised
p.13 (E) Channel Spacing Between Frequencies Reserved for
Radiotelephony in the HF Bands Allocated on an
Exclusive Basis to the Maritime Mobile Service

CEPT-13/20/14
ADD

RESOLUTION No. F

DT/48 p.16 (F/S) Relating to the Use of Non-Paired Ship Station
p.14 (E) Frequencies for Narrow-Band Direct-Printing
Telegraph and Data Transmission Systems¹

WORKING GROUP 4-A**NOTE BY THE CHAIRMAN OF WORKING GROUP 4-A**

Attached at Annex 1 are the pending items concerning Article 8. The unresolved cases are given in square brackets.

In addition to these, reference should be made to Documents 264 and DL/48.

Concerning the operational aspect in footnotes, raised by the IFRB, a draft comment is given in Annex 2.

Obviously this document does not cover the remaining issues concerning the L-band, RDSS allocations, APC issues and MLS issues which are still under consideration.

J. KARJALAINEN
Chairman of Working Group 4-A

Annexes: 2

ANNEX 1

kHz

Allocation to Services		
Region 1	Region 2	Region 3
18 168 - 18 780		
FIXED [[Land] <u>mobile</u>]		

MHz
420 - 470

430 - 440	430 - 440
AMATEUR	RADIOLOCATION
RADIOLOCATION	Amateur
653 654 655 656	
657 658 659 661	
662 663 664 665	653 658 659 660 663 664 [664A]

ADD 664A Additional allocation: in Mexico, the bands 430 - 435 MHz
and 438 - 440 MHz are also allocated on a primary basis to the
mobile service, except aeronautical mobile.

MHz
470 - 890

Allocation to Services		
Region 1	Region 2	Region 3
	470 - 512 BROADCASTING Fixed Mobile 674 675	470 - 585 FIXED MOBILE BROADCASTING
	512 - 608 BROADCASTING 678	673 677 679
	608 - 614 RADIOASTRONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space)	585 - 610 FIXED MOBILE BROADCASTING RADIONAVIGATION 688 689 690
	614 - 806 BROADCASTING Fixed Mobile 675 692 693 [693A]	610 - 890 FIXED MOBILE BROADCASTING
	806 - 890 FIXED MOBILE BROADCASTING [700] [693A]	677 688 689 690 691 693 [701]

MOD 674. Different category of service: in Mexico and Venezuela, the allocation of the band 470 - 512 MHz to the fixed and mobile services, and in Argentina and Uruguay to the mobile service, is on a primary basis (see No. 425), subject to agreement obtained under the procedure set forth in Article 14.

[ADD 693A Additional allocation: in Cuba, the band 614 - 890 MHz is also allocated to the radionavigation service on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.]

[MOD 700 Additional allocation: in Region 2, the band 806 - ~~890~~ 896 MHz is also allocated to the mobile-satellite, ~~except aeronautical mobile-satellite~~, service on a primary basis. The use of this service is intended for operation within national boundaries and subject to agreement obtained under the procedure set forth in Article 14.]

[MOD 701 Additional allocation: in Region 3, the bands 806 - 890 MHz and 942 - 960 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite (R) service on a primary basis. The use of this service is limited to operation within national boundaries and subject to agreement obtained under the procedure set forth in Article 14. ~~This service shall not cause harmful interference to services operating in accordance with the Table.~~]

MHz
890 - 960

Allocation to Services		
Region 1	Region 2	Region 3
	890 - 902 FIXED MOBILE except aeronautical mobile Radiolocation 705 [700]	890 - 942 FIXED MOBILE BROADCASTING Radiolocation
	902 - 928 FIXED Amateur Mobile except aeronautical mobile Radiolocation 705 707 <u>705A</u>	
	928 - 942 FIXED MOBILE except aeronautical mobile Radiolocation 705	
	942 - 960 FIXED Mobile 708	942 - 960 FIXED MOBILE BROADCASTING [701]

ADD 705A

Different category of service: In Chile, the band 903 - 905 MHz is allocated to the mobile except aeronautical mobile service on a primary basis and is subject to agreement obtained under the procedure set forth in Article 14.

MHz
1 215 - 1 240

Allocation to Services		
Region 1	Region 2	Region 3
1 215 - 1 240	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 710 711 712 713 [712A]	

ADD 712A Additional allocation: In Cuba, the band 1 215 - 1 300 MHz is also allocated to the radionavigation service on a primary basis, subject to the agreement obtained under the procedure set forth in Article 14.

MHz
1 525 - 1 530

CUB/98/34
MOD

	1 525 - 1 530 SPACE OPERATION (space-to-Earth) Earth-Exploration Satellite Fixed Mobile 723 722 [722A]	
--	-------------------------------------------------------------------------------------------------------------------------------------------------	--

ADD 722A Additional allocation: in Cuba, the band 1 525 - 1 530 MHz is also allocated to the aeronautical mobile service on a primary basis, subject to the agreement obtained under the procedure set forth in Article 14.

ANNEX 2

Operational aspects in footnotes

The IFRB, in its Document 4, paragraphs 2.2.1 and 2.2.2, has raised some problems encountered in the application of certain footnotes in Article 8 of the Radio Regulations in particular when operational aspects of use are referred to in footnotes for a particular service. The IFRB pointed out that it cannot consider these aspect in its regulatory and technical examination of frequency assignment notices due to lack of relevant information. Also Appendix 1 of the Radio Regulations does not provide for the submission of such data.

Consequently, the Working Group noted that the IFRB in general is not taking into account, in its examinations, of the operational limitations imposed on stations of a radio service in a footnote to the Table of Frequency Allocations (e.g. MOD 451 in Document 206 or ADD 775A in Document 224) and that the observance of such conditions is the sole responsibility of the administrations.

Source: Document DL/20

WORKING GROUP 6-B

Draft

REPORT OF THE CHAIRMAN OF DRAFTING GROUP 6-B-1-2
TO THE CHAIRMAN OF WORKING GROUP 6-B CONCERNING
SECTION III OF ARTICLE 44

At the seventh meeting of Sub-Working Group 6-B-1, it was decided that Drafting Group 6-B-1-2 should provide a report concerning proposals for Section III of Article 44 commencing at No. 3424, and that the report be directly submitted to Working Group 6-B.

The attachment to this document is therefore submitted for consideration by Working Group 6-B.

M.E. EDWARDS
Chairman of Drafting Group 6-B-1-2

Attachment: 1

ATTACHMENT

ARTICLE 44

Section III. Conditions for the Issue of Operator's Certificates

B. First-class Radiotelegraph Operator's Certificate

USA/24/442
URS/288/19
MEX/114/21

MOD 3424

- ⇒ d) ability to send correctly and to receive correctly by radiotelephone in one of the working languages of the Union;

CAN/25/300
CUB/98/137
PRG/61/61

MOD 3425

- ⇒ e) detailed knowledge of the Regulations applying to radiocommunications, ~~knowledge of the documents relating to charges for radiocommunications,~~ knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio, and, in the case of air navigation, knowledge of the special provisions governing the aeronautical fixed, mobile and radionavigation services. In the latter case, the certificate states that the holder has successfully passed the test relating to these special provisions;

URS/288/19
MEX/114/23
ARG/5/47
USA/24/444
CAN/25/301
PHL/77/45

[SUP] 3426

- g) a sufficient knowledge of world geography, especially the principal shipping and air routes and the most important telecommunication routes;

MEX/114/23
URS/288/19
ARG/5/47
USA/24/444
PHL/77/45
CUB/98/139

SUP 3427

MEX/114/23
CUB/98/140
USA/24/445

NOC 3428

C. Second-Class Radiotelegraph Operator's Certificate

MEX/114/23
CUB/98/140
USA/24/445

NOC 3429

CAN/25/302
MOD 3430

- a) ~~elementary theoretical ... for radionavigation,~~
elementary theoretical and practical knowledge of
basic radiocommunications;

CAN/25/303
MOD 3431

- b) ~~elementary theoretical ... No. 3430 elementary~~
theoretical and practical knowledge of the
operation, maintenance and adjustment of
radiotelegraph and radiotelephone apparatus;

MEX/114/28
CUB/98/145
URS/288/22
ARG/5/47
USA/24/450
CAN/25/304
PHL/77/45
SUP 3432

URS/288/22
USA/24/451
MOD 3433

- ~~d)~~ c) ability to send correctly by hand and to receive correctly by ear, in the Morse code, code groups (mixed letters, figures and punctuation marks) at a speed of sixteen groups a minute, and a plain language text at a speed of twenty words a minute. ~~Each code group shall comprise five characters, each figure or punctuation mark counting as two characters. The average word of the text in plain language shall contain five characters.~~ The duration of each test of sending and of receiving shall, as a rule, be five minutes. (The provisions of Nos. ADD 3423.1 and ADD 3423.2 also apply.)

URS/288/22
USA/24/452
MOD 3434

- ~~e)~~ d) ability to send correctly and to receive correctly by radiotelephone, [except in the case provided for in No. 3412;] in one of the working languages of the Union;

URS/288/22
CUB/98/148
USA/24/453
CAN/25/305
PRG/61/71
MOD 3435

- ~~f)~~ e) knowledge of the Regulations applying to radiocommunications, ~~knowledge of the documents relating to charges for radiocommunications,~~ knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio, and, in the case of air navigation, knowledge of the special provisions governing the aeronautical fixed, mobile, and radionavigation services. In the latter case, the certificate states that the holder has successfully passed the tests relating to these special provisions.

URS/288/22
MEX/114/31
ARG/5/47
USA/24/454
CAN/25/306
PHL/77/45

[SUP] 3436

- g) a sufficient knowledge of world geography, especially the principal shipping and air routes and the most important telecommunication routes;

MEX/114/31
CUB/98/150
URS/288/22
ARG/5/47
USA/24/454
PHL/77/45

SUP 3437

MEX/114/31
CUB/98/151

NOC 3438-3439

D. Radiotelegraph Operator's Special Certificate

URS/288/25
CUB/98/153
USA/24/457

MOD ~~3441~~ 3440

- ~~b)~~ a) knowledge of the practical operation and adjustment of radiotelegraph and radiotelephone apparatus;

URS/288/25
CUB/98/153
USA/24/456

MOD ~~3440~~ 3441

- ~~a)~~ b) ability to send correctly by hand and receive correctly by ear, in the Morse code, code groups (mixed letters, figures and punctuation marks) at a speed of sixteen groups a minute, and a plain language text at a speed of twenty words a minute. ~~Each code group shall comprise five characters, each figure or punctuation mark counting as two characters. The average word of the text in plain language shall contain five characters.~~ (The provisions of Nos. ADD 3423.1 and ADD 3423.2 also apply.)

URS/288/25
MEX/114/33
USA/24/458

ADD 3441A

- c) ability to send and receive radiotelephone signals correctly in one of the working languages of the Union;

URS/288/25
MEX/114/34
CUB/98/155
USA/24/459

(MOD) 3442

- ~~e)~~ d) knowledge of the Regulations applying to radiotelegraph communications and specifically of that part of those Regulations relating to safety of life at sea;

URS/288/25

USA/24/460

MOD 3443

(2) Each administration concerned ~~shall~~ may fix the other conditions for obtaining this certificate. ~~However~~, [except as provided for in No. 3412] ~~the conditions specified in Nos. 3450, 3451, 3452 and 3453 or 3454, as the case may be, shall be satisfied.~~

or

CUB/98/156

MOD 3443

(2) Each administration concerned ~~shall~~ may fix the other conditions for obtaining this certificate which enable it to maintain radiotelephone communications in accordance with No. MOD 3405. ~~However, except as provided for in No. 3412, the conditions specified in Nos. 3450, 3451, 3452 and 3453 or 3454, as the case may be, shall be satisfied.~~

Source: CUB/98/265

WORKING GROUP 6 AD HOC 1

NOTE BY THE CHAIRMAN OF WORKING GROUP 6 AD HOC 1

In order to facilitate consideration of Resolution [COM6/3], the Working Group is asked to consider the annexed draft Resolution.

M.A. MARTINEZ PADRON
Chairman of Working Group 6 ad hoc 1

Annex: 1

ANNEX

RESOLUTION [COM6/3]

**Relating to Technical Cooperation with
Developing Countries in the Field
of Aeronautical Telecommunications**

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

considering

- a) that the assignments of the frequency bands and the provisions concerning the various aeronautical mobile services have been revised;
- b) that some of these frequency bands and provisions are intended for the world-wide implementation of new aeronautical telecommunication systems;
- c) that these new systems will employ more advanced techniques such as satellite communications in combination with modern information transmission systems;
- d) that this technological modernization should serve to improve the security and regularity of international civil aviation, as well as to render aeronautical radionavigation more accurate and more secure and distress and rescue systems more efficient;
- e) that the developing countries require assistance to improve the skills of their technical staff, as well as to introduce new systems to cope with technological modernization and enhanced operation of aeronautical telecommunications;

recognizing

the value of the assistance which the Union has provided and may provide to developing countries in the field of telecommunications in conjunction with other international organizations;

requests the Secretary-General

- 1. to offer developing countries which are trying to improve their aeronautical telecommunications the Union's assistance, in particular by providing them with technical advice for the planning, establishment, operation and maintenance of equipment, as well as help with the training of staff and basically with matters related to the new technologies and operating methods examined at this Conference;
- 2. in this context, to seek the collaboration of ICAO, the United Nations Conference for Trade and Development (UNCTAD) and other specialized agencies of the United Nations, as appropriate;
- 3. to inform ICAO that this Conference has recognized the valuable cooperation provided by that organization to developing countries in their technical assistance programmes;

4. to continue to give special attention to seeking the aid of the United Nations Development Programme and other sources in financial support, to enable the Union to render sufficient and effective technical assistance in the field of aeronautical telecommunications, when necessary in collaboration with other specialized agencies concerned;

to call on the developing countries

as far as possible, to include in their national programmes of requests for technical assistance projects related to aeronautical telecommunications and to support multinational projects in that field.

Source: CUB/98/265

WORKING GROUP 6 AD HOC 1

NOTE BY THE CHAIRMAN OF WORKING GROUP 6 AD HOC 1

In order to facilitate consideration of Resolution [COM6/3], the Working Group is asked to consider the annexed draft Resolution.

M.A. MARTINEZ PADRON
Chairman of Working Group 6 ad hoc 1

Annex: 1

ANNEX

RESOLUTION [COM6/3]

**Relating to Technical Cooperation with
Developing Countries in the Field
of Aeronautical Telecommunications**

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

considering

- a) that this Conference has revised the exclusive allocation of frequency bands indicated in Article 8;
- b) that some of these frequency bands are to be used for the study and introduction world-wide of new aeronautical telecommunications systems;
- c) that these new systems will employ more advanced techniques such as satellite communications in combination with modern information transmission systems;
- d) that this technological modernization should serve to improve the security and regularity of international civil aviation, as well as to render aeronautical radionavigation more accurate and more secure and distress and rescue systems more efficient;
- e) that the developing countries require assistance to improve the skills of their technical staff, as well as to introduce new systems to cope with technological modernization and enhanced operation of aeronautical telecommunications;

requests the Secretary-General

- 1. to offer developing countries which are trying to improve their aeronautical telecommunications the Union's assistance, in particular by providing them with technical advice for the planning, establishment, operation and maintenance of equipment, as well as help with the training of staff and basically with matters related to the new technologies and operating methods examined at this Conference;
- 2. in this context, to seek the collaboration of ICAO, the United Nations Conference for Trade and Development (UNCTAD) and other specialized agencies of the United Nations, as appropriate;
- 3. to inform ICAO that this Conference has recognized the valuable cooperation provided by that organization to developing countries in their technical assistance programmes;

4. to continue to give special attention to seeking the aid of the United Nations Development Programme and other sources in financial support, to enable the Union to render sufficient and effective technical assistance in the field of aeronautical telecommunications, when necessary in collaboration with other specialized agencies concerned;

to call on the developing countries

as far as possible, to include in their national programmes of requests for technical assistance projects related to aeronautical telecommunications and to support multinational projects in that field.

WORKING GROUP 6-ADraftREPORT OF DRAFTING GROUP 6-A-4
TO WORKING GROUP 6-A

Revisions to Article 62, as approved by Drafting Group 6-A-4, are shown in the attached annex.

It is noted that DSC frequencies (Nos. 4679A, 4681A, 4683 and 4684) will need to be coordinated with Committee 4.

Previously, the Working Group had considered and approved proposals from the United Kingdom identified as ADD 4685.3 and Resolution Z concerning DSC use for automated HF radiotelephony systems. The Drafting Group approved the more general MOD 4685 proposed by the United States, thereby mooted the need for ADD 4685.3; and it proposes revision to Resolution Z to conform to MOD 4685.

M.W. BERCOVICI
Chairman of Drafting Group 6-A-4

Annex: 1

ANNEX

ARTICLE 62

NOC

Selective Calling Procedure in the
Maritime Mobile Service

NOC

Section I. General

SUP 4665 SUP
Mob-83

NOC 4665A
Mob-83

SUP 4666 SUP
Mob-83

NOC 4666A
Mob-83

NOC

Section II. Sequential Single-Frequency Code System

NOC 4667 A. General

NOC 4668

NOC 4668A § 2A. The sequential single-frequency code system may be in
Mob-83 operation until it is superseded by the digital selective calling
system referred to in Section III.

NOC 4669 B. Method of Calling

NOC 4670-4674

NOC 4675 C. Reply to Calls

NOC 4676

MOD 4677 a) Nos. 4767 and 4769 when using Morse radiotelegraphy.

NOC 4678

NOC 4679 D. Frequencies to Be Used

MOD 4679A 4A. Selective calling may be carried out on:

a) the following calling frequencies:

500		kHz
2170.5		kHz
4125		kHz
4419.4	4417	kHz
6524.9	6522	kHz
8788.9	8779	kHz
13162.8	13166	kHz
17294.9	17293	kHz
19773		kHz
22658	22765	kHz
26172		kHz
156.8		MHz

NOC 4679A.1

SUP 4679B - 4679C

SUP 4680 SUP
Mob-83

NOC

Section III. Digital Selective Calling System

ADD 4680A

A. General

MOD 4681 § 6 ~~A digital selective calling system may be used if it is in full. The technical characteristics of equipment used for digital selective calling shall be in conformity with the relevant CCIR Recommendations in which all operational, technical and compatibility aspects which might be involved have been taken into account.~~

MOD 4681A The frequencies used for distress and safety purposes using digital selective calling are as follows (see also Article 38):

[490 - - - kHz (shore-to-ship)²
2187.5 kHz
4188 kHz
6282 kHz
8375 kHz
12563 kHz
16750 kHz
156.525 kHz-MHz¹]

MOD 4682 7. The frequencies assignable on an international basis to ship and coast stations for digital selective calling, for purposes other than distress and safety, are as follows:

MOD 4683 a) Ship stations

[2 189.5 kHz
4 187.5 kHz
6 281.5 kHz
8 375.5 kHz
12 562 kHz
12 562.5 kHz
16 750.5 kHz
16 751 kHz
22 248 kHz
22 248.5 kHz
156.525 MHz¹]

SUP 4680.1 and 4680.2 SUP
Mob-83

SUP 4681A.1 ² See also Resolution 206 (Mob-83).
Mob-83

ADD 4681A.2 ¹ In addition to its use for distress and safety purposes, the frequency 156.525 MHz may also be used for other digital selective calling purposes.

MOD 4684 b) Coast stations

[2189.5 kHz
4357.0 kHz
6506.0 kHz
8718.5 kHz
13100.0 kHz
13100.5 kHz
17232.0 kHz
17232.5 kHz
22595.0 kHz
22595.5 kHz
156,525 MHz]

MOD 4685 In addition to the frequencies listed in
Nos. 4683 and 4684, appropriate working frequencies in the
following bands may be used for digital selective calling:

415	-	526.5 kHz	(Regions 1 and 3)
415	-	525 kHz	(Region 2)
1606.5	-	4000 kHz	(Regions 1 and 3)
1605*	-	4000 kHz	(Region 2)
4000	-	27500 kHz	{except in the bands listed in Nos. 4197, 4198, 4199 and 4201, and in the band 4000-4063 kHz}
156	-	174 MHz	

*For the band 1605-1625 kHz, see Nos. 480 and 481.

ADD 4683.1)
4684.1) 1,2 156.525 MHz is also used for distress and safety
purposes (see No. 4681A.2).

ADD

RESOLUTION Z

Relating to Early Implementation of the Use of Digital
Selective Calling on Maritime HF Radiotelephone Channels

The World Administrative Conference for the Mobile Services,
Geneva, 1987,

considering

- a) that there is a requirement for ship stations when operating radiotelephony to be able to signal using digital selective calling;
- b) that at present digital signals are not allowed to be emitted on maritime HF radiotelephony channels;
- c) that nevertheless this Conference has adopted a modification to provision 4685 to permit the use of digital selective calling on HF Radiotelephone working channels;
- d) that it is probable that equipment capable of satisfying the requirement will be available before the date of implementation of the Final Acts of the Conference;

resolves

that, with effect from 1 January 1988 on the maritime HF radiotelephony channels digital selective calling may be emitted on ship working channels in accordance with Radio Regulation 4685 as modified by this Conference.

ADD 4686 B. Method of Calling

ADD 4686A § 9. (1) The procedures set out in this section are applicable to the use of digital selective calling techniques, except in cases of distress, urgency or safety, to which the provisions of Chapter NIX are applicable.

ADD 4686B (2) The call shall contain information indicating to which station or stations the call is directed, and the identification of the calling station.

ADD 4686C (3) The call should also contain information indicating the type of communication to be set up and may include supplementary information such as a proposed working frequency or channel, which shall always be included in the case of calls from coast stations, which shall have priority for that purpose.

ADD 4686D (4) The technical format of the call sequence shall be in conformity with the relevant CCIR Recommendations.

ADD 4686E (5) The call shall be transmitted once on a single appropriate calling channel or frequency only. Only in exceptional circumstances may a call be transmitted simultaneously on more than one frequency.

ADD 4686F (6) When calling ship stations, coast stations may transmit the call sequence twice at the same calling frequency, whichever it may be, with an interval of at least 45 seconds between the two calls, provided that they receive no acknowledgement within that interval.

ADD 4686G (7) When calling on nationally ^{assigned} frequencies, ~~in these bands or group calling frequencies (see Appendix 31A)~~, coast stations may exceptionally transmit a call attempt consisting of up to five calls at the same frequency.

ADD 4686H (8) If the station called does not acknowledge the call, the call may be transmitted again on the same or another calling frequency after a period of at least five minutes (five seconds in automated VHF/UHF systems) and should then normally not be renewed until after a further interval of 15 minutes.

ADD 4686I (9) When initiating a call to a coast station, a ship station should preferably use the coast station's nationally ^{assigned} calling channels, for which purpose it shall send a single calling sequence on the selected frequency.

ADD 4687 C. Acknowledgement of calls

ADD 4688 C1. Content and transmission procedure of acknowledgements

ADD 4688A § 10. (1) The reply to a digital selective call requesting an acknowledgement shall be made by transmitting an appropriate acknowledgement using digital selective calling techniques.

ADD 4688B (2) Transmission of the calling signal shall cease as soon as an acknowledgement is received.

ADD 4688C (3) Acknowledgements may be manual or automatic. When an acknowledgement can be transmitted automatically, it shall be in conformity with the relevant CCIR Recommendations.

ADD 4688D (4) Acknowledgements shall normally be transmitted on the frequency paired with the frequency of the received call. If the same call is received on several calling channels, the most appropriate shall be chosen for transmission of the acknowledgement.

ADD 4688E (5) The technical format of the acknowledgement sequence shall be in conformity with the relevant CCIR Recommendations.

ADD 4688F (6) If the call includes a proposal for a working channel or frequency, which can be used immediately by the station called, the latter should transmit an acknowledgement indicating this possibility.

ADD 4688G (7) If, in the above case, the station called is not able immediately to use the working frequency or channel proposed in the received call, it should indicate this in its acknowledgement, which may also include supplementary information in that respect.

ADD 4688H (8) Coast stations not able to comply immediately on a proposed working frequency or channel may include a proposal of an alternative working frequency or channel in the acknowledgement specified in No. 4688G.

ADD 4688I (9) If no working frequency or channel was proposed in the call, the station called should include a proposal for a working frequency or channel in its acknowledgement of the call.

ADD 4689 C2. Mode of transmission of acknowledgements

ADD 4689A §11. (1) Acknowledgements may be initiated either manually or automatically. Where automatic transmission of acknowledgement takes place, this should be in conformity with the relevant CCIR Recommendations.

ADD 4689B (2) If the ship station is unable to acknowledge a received call within a time limit of five minutes, the ship station's reply to the call should be made by transmitting a call in accordance with the provisions of No. 4686 to the calling station. Where automated or semi-automated systems are used, a time limit in accordance with the relevant Recommendations of the CCIR should apply.

ADD 4690 D. Preparation for Exchange of Traffic

ADD 4690A § 12. (1) The procedures described in this sub-section are applicable for manual operation. Where automated or semi-automated digital selective calling VHF/UHF systems are used, these should operate in conformity with relevant CCIR Recommendations.

ADD 4690B (2) After having transmitted an acknowledgement indicating that it can use the proposed working frequency or channel, the station called transfers to the working frequency or channel and prepares for receiving the traffic.

ADD 4690C (3) The calling station shall prepare for transmitting traffic on the working channel or frequency it has proposed.

ADD 4690D (4) The calling station and the called station then exchange traffic on the appropriate working frequency or channel.

ADD 4690E (5) If the ship station is unable to use the working frequency or channel proposed in an acknowledgement transmitted by the coast station, the ship station should then transmit a new call in accordance with the provisions of Nos. 4686I to 4686K, indicating that it is unable to comply.

ADD 4690F (6) The coast station shall then transmit an acknowledgement indicating an alternative working frequency or channel.

ADD 4690G (7) On reception, the operator of the ship station shall then apply the provisions of Nos. 4690C or 4690E as appropriate.

ADD 4690H (8) For communication between a coast station and a ship station, the coast station shall finally decide the working frequency or channel to be used.

(MOD) ~~4686~~ 4691 to 4709 NOT allocated.

COMMISSION 5

NOTE DU SECRETARIAT

A sa 7ème séance, tenue le 6 octobre 1987, et dans le cadre de l'examen du point 3 ("Questions relatives au Chapitre IX) a) ADD 3220 A" (Documents 223 (Rév.1), DL/53, 325) de son ordre du jour (Document C5/7-8), la Commission 5, sur demande de la délégation de la Tunisie, a décidé de prier le Secrétaire général de publier sous forme de document de conférence l'ensemble intégral des textes juridiques mentionnés dans l'avis juridique formulé pendant ladite séance par le Conseiller juridique de l'UIT; le texte intégral de l'avis proprement dit sera publié sous forme d'Annexe du compte rendu de ladite séance, comme l'a également décidé la Commission 5.

En conséquence, les documents demandés* sont ci-après annexés et communiqués à la Commission 5.

*Note: Ces textes ne sont disponibles que dans les langues de travail dans lesquelles ils ont été rédigés.

NOTE BY THE SECRETARIAT

At its seventh meeting on Tuesday, 6 October 1987, during its consideration of point "3 ("matters related to Chapter IX") a) ADD 3220 A" (Documents 223 (Rev.1), DL/53, 325) of its agenda (C5/7-8), Committee 5, upon request of the Delegation of Tunisia, decided to request the Secretary-General to publish, in a conference document, the various full legal texts referred to in the legal opinion and advice only presented at that meeting by the ITU Legal Adviser, prior to the full text of that opinion and advice being published as an annex to the Summary Records of that meeting, as equally decided by Committee 5.

Consequently, the requested texts* are hereby submitted to Committee 5 in the annexes to the present document.

* Note: These texts are only available in the working languages as submitted.

NOTA DE LA SECRETARIA

En su séptima sesión celebrada el martes 6 de octubre de 1987, al examinar el punto "3 ("asuntos relacionados con el capítulo IX") a) ADD 3220 A" (Documentos 223 (Rev.1), DL/53, 325) de su orden del día (C5/7-8), la Comisión 5 decidió, a petición de la Delegación de Túnez, pedir al Secretario General que publicara en forma completa, en un documento de la Conferencia, los diversos textos jurídicos mencionados por el Asesor Jurídico de la UIT en la opinión y consejo jurídico que expuso en esa sesión, antes de que se publicara el texto completo de dicha opinión y consejo en forma de un anexo al resumen de debates de la sesión, según lo decidido también por la Comisión 5.

En consecuencia, los textos solicitados* se someten a la Comisión 5 en los anexos al presente documento

* Nota: Estos textos existen solamente en los idiomas de trabajo en que se presentan.

ANNEX 1

IMO documentation:

INTERNATIONAL CONVENTION
FOR THE

SAFETY OF LIFE AT SEA

Regulation 3

Definitions

For the purpose of this chapter, unless expressly provided otherwise:

13 *Rescue boat* is a boat designed to rescue persons in distress and to marshal survival craft.

IMO SEARCH and
RESCUE MANUAL

Craft

- Any surface craft or submersible of any kind and size.

SAR unit

INTERNATIONAL CONVENTION ON
MARITIME SEARCH AND RESCUE, 1979

ANNEX

CHAPTER 1

TERMS AND DEFINITIONS

- 5 "Rescue unit". A unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.

ICRC and ILC documentation :

*GENEVA CONVENTION FOR
THE AMELIORATION OF THE CONDITION
OF THE WOUNDED AND SICK IN ARMED
FORCES IN THE FIELD OF AUGUST 12, 1949*

The undersigned Plenipotentiaries of the Governments represented at the Diplomatic Conference held at Geneva from April 21 to August 12, 1949, for the purpose of revising the Geneva Convention for the Relief of the Wounded and Sick in Armies in the Field of July 27, 1929, have agreed as follows :

CHAPTER I
GENERAL PROVISIONS

ARTICLE 1

Respect for the Convention	The High Contracting Parties undertake to respect and to ensure respect for the present Convention in all circumstances.
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ARTICLE 2

Application of the Convention	In addition to the provisions which shall be implemented in peacetime, the present Convention shall apply to all cases of declared war or of any other armed conflict which may arise between two or more of the High Contracting Parties, even if the state of war is not recognized by one of them.
-------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The Convention shall also apply to all cases of partial or total occupation of the territory of a High Contracting Party, even if the said occupation meets with no armed resistance.

Although one of the Powers in conflict may not be a party to the present Convention, the Powers who are parties thereto shall remain bound by it in their mutual relations. They shall furthermore be bound by the Convention in relation to the said Power, if the latter accepts and applies the provisions thereof.

CHAPTER II
WOUNDED, SICK AND SHIPWRECKED

ARTICLE 13

Protected persons The present Convention shall apply to the wounded, sick and shipwrecked at sea belonging to the following categories:

- (1) Members of the armed forces of a Party to the conflict, as well as members of militias or volunteer corps forming part of such armed forces.
- (2) Members of other militias and members of other volunteer corps, including those of organized resistance movements, belonging to a Party to the conflict and operating in or outside their own territory, even if this territory is occupied, provided that such militias or volunteer corps, including such organized resistance movements, fulfil the following conditions:
 - (a) that of being commanded by a person responsible for his subordinates;
 - (b) that of having a fixed distinctive sign recognizable at a distance;
 - (c) that of carrying arms openly;
 - (d) that of conducting their operations in accordance with the laws and customs of war.
- (3) Members of regular armed forces who profess allegiance to a Government or an authority not recognized by the Detaining Power.
- (4) Persons who accompany the armed forces without actually being members thereof, such as civilian members of military aircraft crews, war correspondents, supply contractors, members of labour units or of services responsible for the welfare of the armed forces, provided that they have received authorization from the armed forces which they accompany.
- (5) Members of crews, including masters, pilots and apprentices of the merchant marine and the crews of civil aircraft of the Parties to the conflict, who do not benefit by more favourable treatment under any other provisions of international law.
- (6) Inhabitants of a non-occupied territory who, on the approach of the enemy, spontaneously take up arms to resist the invading forces, without having had time to form themselves into regular armed units, provided they carry arms openly and respect the laws and customs of war.

CHAPTER III
HOSPITAL SHIPS

ARTICLE 22

Notification and protection of military hospital ships Military hospital ships, that is to say, ships built or equipped by the Powers specially and solely with a view to assisting the wounded, sick and shipwrecked, to treating them and to transporting them, may in no circumstances be attacked or captured, but shall at all times be respected and protected, on condition that their names and descriptions have been notified to the Parties to the conflict ten days before those ships are employed.

The characteristics which must appear in the notification shall include registered gross tonnage, the length from stem to stern and the number of masts and funnels.

ARTICLE 24

Hospital ships utilized by relief societies and private individuals of I. Parties to the conflict

Hospital ships utilized by National Red Cross Societies, by officially recognized relief societies or by private persons shall have the same protection as military hospital ships and shall be exempt from capture, if the Party to the conflict on which they depend has given them an official commission and in so far as the provisions of Article 22 concerning notification have been complied with.

These ships must be provided with certificates from the responsible authorities, stating that the vessels have been under their control while fitting out and on departure.

ARTICLE 27

Coastal rescue craft

Under the same conditions as those provided for in Articles 22 and 24, small craft employed by the State or by the officially recognized lifeboat institutions for coastal rescue operations, shall also be respected and protected, so far as operational requirements permit.

The same shall apply so far as possible to fixed coastal installations used exclusively by these craft for their humanitarian missions.

ARTICLE 30

Employment of hospital ships and small craft

The vessels described in Articles 22, 24, 25 and 27 shall afford relief and assistance to the wounded, sick and shipwrecked without distinction of nationality.

The High Contracting Parties undertake not to use these vessels for any military purpose.

Such vessels shall in no wise hamper the movements of the combatants.

During and after an engagement, they will act at their own risk.

ARTICLE 31

Right of control and search

The Parties to the conflict shall have the right to control and search the vessels mentioned in Articles 22, 24, 25 and 27. They can refuse assistance from these vessels, order them off, make them take a certain course, control the use of their wireless and other means of communication, and even detain them for a period not exceeding seven days from the time of interception, if the gravity of the circumstances so requires.

They may put a commissioner temporarily on board whose sole task shall be to see that orders given in virtue of the provisions of the preceding paragraph are carried out.

As far as possible, the Parties to the conflict shall enter in the log of the hospital ship, in a language he can understand, the orders they have given the captain of the vessel.

Parties to the conflict may, either unilaterally or by particular agreements, put on board their ships neutral observers who shall verify the strict observation of the provisions contained in the present Convention.

CHAPTER VI
THE DISTINCTIVE EMBLEM

ARTICLE 43

Marking of
hospital ships
and small craft

The ships designated in Articles 22, 24, 25 and 27 shall be distinctively marked as follows :

- (a) All exterior surfaces shall be white.
- (b) One or more dark red crosses, as large as possible, shall be painted and displayed on each side of the hull and on the horizontal surfaces, so placed as to afford the greatest possible visibility from the sea and from the air.

All hospital ships shall make themselves known by hoisting their national flag and further, if they belong to a neutral state, the flag of the Party to the conflict whose direction they have accepted. A white flag with a red cross shall be flown at the mainmast as high as possible.

Lifeboats of hospital ships, coastal lifeboats and all small craft used by the Medical Service shall be painted white with dark red crosses prominently displayed and shall, in general, comply with the identification system prescribed above for hospital ships.

The above-mentioned ships and craft, which may wish to ensure by night and in times of reduced visibility the protection to which they are entitled, must, subject to the assent of the Party to the conflict under whose power they are, take the necessary measures to render their painting and distinctive emblems sufficiently apparent.

Hospital ships which, in accordance with Article 31, are provisionally detained by the enemy, must haul down the flag of the Party to the conflict in whose service they are or whose direction they have accepted.

Coastal lifeboats, if they continue to operate with the consent of the Occupying Power from a base which is occupied, may be allowed, when away from their base, to continue to fly their own national colours along with a flag carrying a red cross on a white ground, subject to prior notification to all the Parties to the conflict concerned.

All the provisions in this Article relating to the red cross shall apply equally to the other emblems mentioned in Article 41.

Parties to the conflict shall at all times endeavour to conclude mutual agreements, in order to use the most modern methods available to facilitate the identification of hospital ships.

IMPROVING THE PROTECTION OF SHORE-BASED RESCUE
CRAFT IN PERIODS OF ARMED CONFLICT



The XIVth International Lifeboat Conference held in Sweden in 1983 discussed the technical problems associated with the identification of shore-based rescue craft in periods of armed conflict. It was resolved at the Conference that a special working group comprising representatives from Sweden, the USA, the USSR and Great Britain should continue discussions with the International Committee of the Red Cross (ICRC) and seek a solution to these problems, particularly with regard to the use of radio and radar for the communications and identification respectively of rescue craft in periods of armed conflict.

The working group submitted a series of proposals to the ICRC which were as follows:-


1. In the future, vessels employed by the State or by the officially recognised Lifeboat Institutions used in Search and Rescue operations in accordance with Article 27 of the Second Geneva Convention, should be known as "Rescue Craft" irrespective of their size or range of operation.
2. The above mentioned rescue craft should not be restricted to coastal rescue operations in order to be "respected and protected, so far as operational requirements permit" as provided for in the Second Geneva Convention, Article 27.
3. Crews of state or officially recognised Lifeboat Institution rescue craft should be "respected and protected" in the same manner as religious and medical personnel (see Articles 36 and 37 of the Second Geneva Convention) during the time they are involved in rescue operations. The same protection should apply to personnel of fixed coastal installations when involved in rescue operations.
4. The above mentioned crews and personnel should be entitled to the Armlet, Special Identification Cards and Discs referred to in Article 42 of the Second Geneva Convention, during rescue operations.
5. Much of the recent work done by IMO (see Chapter XIV of the International Code of Signals. e.g. Blue Flashing Lights) and ITU (see Article 40, radio regulation, e.g. radio identification) has been tied to the term "medical transport" which is defined only in Protocol 1 of 1977 to the Geneva Conventions of 1949. The protocols and resolutions to the Second Geneva Convention contain material relevant to the further interpretation of which articles and provisions of the Second Geneva Convention are applicable to rescue craft. It is recommended that the ICRC call this matter to the attention of states not yet party to those protocols concerning rescue craft for their consideration.
6. The need exists to ensure that the protection provisions of medical transports are made applicable to all rescue craft utilised solely for humanitarian purposes.

ANNEXE II

Recto

			
(Place réservée à l'indication du pays et de l'autorité militaire qui délivrent la présente carte)			
CARTE D'IDENTITÉ			
pour les membres du personnel sanitaire et religieux attachés aux armées			
Nom	Prénoms	Date de naissance	Grade
Numéro matricule		Le titulaire de la présente carte est protégé par la Convention de Genève pour l'amélioration du sort des blessés, des malades dans les forces armées en campagne du 12 août 1949, en qualité de	
Date de l'établissement de la carte		Numéro de la carte	

Verso

Photographie du porteur		Signature ou empreintes digitales ou les deux	
			
Taille	Yeux	Cheveux	
Autres éléments éventuels d'identification :			

CONVENTION DE GENÈVE POUR
L'AMÉLIORATION DU SORT DES BLESSÉS,
DES MALADES ET DES NAUFRAGÉS
DES FORCES ARMÉES SUR MER
DU 12 AOÛT 1949

Les soussignés, Plénipotentiaires des Gouvernements représentés à la Conférence diplomatique qui s'est réunie à Genève du 21 avril au 12 août 1949 en vue de reviser la X^e Convention de La Haye du 18 octobre 1907 pour l'adaptation à la guerre maritime des principes de la Convention de Genève de 1906, sont convenus de ce qui suit :

II

CHAPITRE I

DISPOSITIONS GÉNÉRALES

ARTICLE 1

Les Hautes Parties contractantes s'engagent à respecter et à faire respecter la présente Convention en toutes circonstances.

Respect de la Convention

ARTICLE 2

En dehors des dispositions qui doivent entrer en vigueur dès le temps de paix, la présente Convention s'appliquera en cas de guerre déclarée ou de tout autre conflit armé surgissant entre deux ou plusieurs des Hautes Parties contractantes, même si l'état de guerre n'est pas reconnu par l'une d'elles.

Application de la Convention

La Convention s'appliquera également dans tous les cas d'occupation de tout ou partie du territoire d'une Haute Partie contractante, même si cette occupation ne rencontre aucune résistance militaire.

Si l'une des Puissances en conflit n'est pas partie à la présente Convention, les Puissances parties à celles-ci resteront néanmoins liées par elle dans leurs rapports réciproques. Elles seront liées en outre par la Convention envers ladite Puissance, si celle-ci en accepte et en applique les dispositions.

ARTICLE 3

En cas de conflit armé ne présentant pas un caractère international et surgissant sur le territoire de l'une des Hautes Parties contractantes, chacune des Parties au conflit sera tenue d'appliquer au moins les dispositions suivantes :

Conflits de caractère non-international

- 1) Les personnes qui ne participent pas directement aux hostilités, y compris les membres de forces armées qui ont déposé les armes et les personnes qui ont été mises hors de combat par maladie, blessure, détention, ou pour toute autre cause, seront, en toutes circonstances, traitées avec humanité, sans aucune distinction de caractère défavorable basée sur la race, la couleur, la religion ou la croyance, le sexe, la naissance ou la fortune, ou tout autre critère analogue.

A cet effet, sont et demeurent prohibés, en tout temps et en tout lieu, à l'égard des personnes mentionnées ci-dessus :

- a) les atteintes portées à la vie et à l'intégrité corporelle, notamment le meurtre sous toutes ses formes, les mutilations, les traitements cruels, tortures et supplices ;
- b) les prises d'otages ;
- c) les atteintes à la dignité des personnes, notamment les traitements humiliants et dégradants ;
- d) les condamnations prononcées et les exécutions effectuées sans un jugement préalable, rendu par un tribunal régulièrement constitué, assorti des garanties judiciaires reconnues comme indispensables par les peuples civilisés.

- 2) Les blessés, les malades et les naufragés seront recueillis et soignés.

Un organisme humanitaire impartial, tel que le Comité international de la Croix-Rouge, pourra offrir ses services aux Parties au conflit.

Les Parties au conflit s'efforceront, d'autre part, de mettre en vigueur par voie d'accords spéciaux tout ou partie des autres dispositions de la présente Convention.

L'application des dispositions qui précèdent n'aura pas d'effet sur le statut juridique des Parties au conflit.

ARTICLE 4

Champ
d'application

En cas d'opérations de guerre entre les forces de terre et de mer des Parties au conflit, les dispositions de la présente Convention ne seront applicables qu'aux forces embarquées.

Les forces débarquées seront immédiatement soumises aux dispositions de la Convention de Genève pour l'amélioration du sort des blessés et des malades dans les forces armées en campagne du 12 août 1949.

ARTICLE 5

Les Puissances neutres appliqueront par analogie les dispositions de la présente Convention aux blessés, malades et naufragés, aux membres du personnel sanitaire et religieux, appartenant aux forces armées des Parties au conflit, qui seront reçus ou internés sur leur territoire, de même qu'aux morts recueillis.

Application
par les
Puissances
neutres

ARTICLE 6

En dehors des accords expressément prévus par les articles 10, 18, 31, 38, 39, 40, 43 et 53, les Hautes Parties contractantes pourront conclure d'autres accords spéciaux sur toute question qu'il leur paraîtrait opportun de régler particulièrement. Aucun accord spécial ne pourra porter préjudice à la situation des blessés, malades et naufragés, ainsi que des membres du personnel sanitaire et religieux, telle qu'elle est réglée par la présente Convention, ni restreindre les droits que celle-ci leur accorde.

Les blessés, malades et naufragés, ainsi que les membres du personnel sanitaire et religieux, resteront au bénéfice de ces accords aussi longtemps que la Convention leur est applicable, sauf stipulations contraires contenues expressément dans les susdits accords ou dans des accords ultérieurs, ou également sauf mesures plus favorables prises à leur égard par l'une ou l'autre des Parties au conflit.

Accords
spéciaux

ARTICLE 7

Les blessés, malades et naufragés, ainsi que les membres du personnel sanitaire et religieux, ne pourront en aucun cas renoncer partiellement ou totalement aux droits que leur assurent la présente Convention et, le cas échéant, les accords spéciaux visés à l'article précédent.

Inaliénabilité
des droits

ARTICLE 8

La présente Convention sera appliquée avec le concours et sous le contrôle des Puissances protectrices chargées de sauvegarder les intérêts des Parties au conflit. A cet effet, les Puissances protectrices pourront, en dehors de leur personnel diplomatique ou consulaire, désigner des délégués parmi leurs propres ressortissants ou parmi les ressortissants d'autres Puissances neutres. Ces délégués devront être soumis à l'agrément de la Puissance auprès de laquelle ils exerceront leur mission.

Puissances
protectrices

Les Parties au conflit faciliteront, dans la plus large mesure possible, la tâche des représentants ou délégués des Puissances protectrices.

Ils seront traités et soignés avec humanité par la Partie au conflit qui les aura en son pouvoir, sans aucune distinction de caractère défavorable basée sur le sexe, la race, la nationalité, la religion, les opinions politiques ou tout autre critère analogue. Est strictement interdite toute atteinte à leur vie et à leur personne et, entre autres, le fait de les achever ou de les exterminer, de les soumettre à la torture, d'effectuer sur eux des expériences biologiques, de les laisser de façon préméditée sans secours médical ou sans soins, ou de les exposer à des risques de contagion ou d'infection créés à cet effet.

Seules des raisons d'urgence médicale autoriseront une priorité dans l'ordre des soins.

Les femmes seront traitées avec tous les égards particuliers dus à leur sexe.

ARTICLE 13

- | | |
|---------------------|---------------------------------------------------------------------------------------------------------------------|
| Personnes protégées | La présente Convention s'appliquera aux naufragés, blessés et malades en mer appartenant aux catégories suivantes : |
|---------------------|---------------------------------------------------------------------------------------------------------------------|
- 1) les membres des forces armées d'une Partie au conflit, de même que les membres des milices et des corps de volontaires faisant partie de ces forces armées ;
 - 2) les membres des autres milices et les membres des autres corps de volontaires, y compris ceux des mouvements de résistance organisés, appartenant à une Partie au conflit et agissant en dehors ou à l'intérieur de leur propre territoire, même si ce territoire est occupé, pourvu que ces milices ou corps de volontaires, y compris ces mouvements de résistance organisés, remplissent les conditions suivantes :
 - a) d'avoir à leur tête une personne responsable pour ses subordonnés ;
 - b) d'avoir un signe distinctif fixe et reconnaissable à distance ;
 - c) de porter ouvertement les armes ;
 - d) de se conformer, dans leurs opérations, aux lois et coutumes de la guerre ;
 - 3) les membres des forces armées régulières qui se réclament d'un gouvernement ou d'une autorité non reconnus par la Puissance détentrice ;
 - 4) les personnes qui suivent les forces armées sans en faire directement partie, telles que les membres civils d'équipages d'avions militaires, correspondants de guerre, fournisseurs, membres d'unités de travail ou de services

chargés du bien-être des militaires, à condition qu'elles en aient reçu l'autorisation des forces armées qu'elles accompagnent ;

- 5) les membres des équipages, y compris les commandants, pilotes et apprentis, de la marine marchande et les équipages de l'aviation civile des Parties au conflit qui ne bénéficient pas d'un traitement plus favorable en vertu d'autres dispositions du droit international ;
- 6) la population d'un territoire non occupé qui, à l'approche de l'ennemi, prend spontanément les armes pour combattre les troupes d'invasion sans avoir eu le temps de se constituer en forces armées régulières, si elle porte ouvertement les armes et si elle respecte les lois et coutumes de la guerre.

ARTICLE 14

Tout vaisseau de guerre d'une Partie belligérante pourra réclamer la remise des blessés, des malades ou des naufragés qui sont à bord de navires-hôpitaux militaires, de navires-hôpitaux de sociétés de secours ou de particuliers ainsi que de navires de commerce, yachts et embarcations, quelle que soit leur nationalité, pour autant que l'état de santé des blessés et malades en permette la remise et que le vaisseau de guerre dispose d'installations permettant d'assurer à ceux-ci un traitement suffisant.

Remise à un belligérant

ARTICLE 15

Si des blessés, des malades ou des naufragés sont recueillis à bord d'un vaisseau de guerre neutre ou par un aéronef militaire neutre, il devra être pourvu, lorsque le droit international le requiert, à ce qu'ils ne puissent pas de nouveau prendre part à des opérations de guerre.

Blessés recueillis par un navire de guerre neutre

ARTICLE 16

Compte tenu des dispositions de l'article 12, les blessés, les malades et les naufragés d'un belligérant, tombés au pouvoir de l'adversaire, seront prisonniers de guerre et les règles du droit des gens concernant les prisonniers de guerre leur seront applicables. Il appartiendra au capteur de décider, suivant les circonstances, s'il convient de les garder, de les diriger sur un port de son pays, sur un port neutre, ou même sur un port de l'adversaire. Dans ce dernier cas, les prisonniers de guerre ainsi rendus à leur pays ne pourront servir pendant la durée de la guerre.

Blessés tombés au pouvoir de l'adversaire

CHAPITRE III

DES NAVIRES-HÔPITAUX

ARTICLE 22

Notification
et protection
des navires-
hôpitaux
militaires

Les navires-hôpitaux militaires, c'est-à-dire les navires construits ou aménagés par les Puissances, spécialement uniquement en vue de porter secours aux blessés, malades naufragés, de les traiter et de les transporter, ne pourront aucune circonstance être attaqués ni capturés, mais seront tout temps respectés et protégés, à condition que leurs noms caractéristiques aient été communiqués aux Parties au conflit dix jours avant leur emploi.

Les caractéristiques qui doivent figurer dans la notification comprendront le tonnage brut enregistré, la longueur de la poupe à la proue et le nombre de mâts et de cheminées.

ARTICLE 23

Protection des
établissements
sanitaires
côtiers

Les établissements situés sur la côte et qui ont droit à la protection de la Convention de Genève pour l'amélioration du sort des blessés et des malades dans les forces armées en campagne du 12 août 1949 ne devront être ni attaqués ni bombardés de la mer.

ARTICLE 24

Navires-
hôpitaux des
sociétés de
secours et des
particuliers

Les navires-hôpitaux utilisés par des Sociétés nationales de la Croix-Rouge, par des Sociétés de secours officiellement reconnues ou par des particuliers jouiront de la même protection que les navires-hôpitaux militaires et seront exempts de capture si la Partie au conflit dont ils dépendent leur a donné une commission officielle et pour autant que les dispositions de l'article 22 relatives à la notification auront été observées.

I.
D'une Partie
au conflit

Ces navires devront être porteurs d'un document de l'autorité compétente déclarant qu'ils ont été soumis à son contrôle pendant leur armement et à leur départ.

ARTICLE 25

II.
De pays
neutres

Les navires-hôpitaux utilisés par des Sociétés nationales de la Croix-Rouge, par des Sociétés de secours officiellement reconnues ou par des particuliers de pays neutres, jouiront de la même protection que les navires-hôpitaux militaires et seront exempts de capture, à condition qu'ils se soient mis sous la direction de l'une des Parties au conflit, avec l'assen-

timent préalable de leur propre gouvernement et avec l'autorisation de cette Partie et pour autant que les dispositions de l'article 22 concernant la notification auront été observées.

ARTICLE 26

La protection prévue aux articles 22, 24 et 25 s'appliquera aux navires-hôpitaux de tous tonnages et à leurs canots de sauvetage, en quelque lieu qu'ils opèrent. Toutefois, pour assurer le maximum de confort et de sécurité, les Parties au conflit s'efforceront de n'utiliser, pour le transport des blessés, malades et naufragés, sur de longues distances et en haute mer, que des navires-hôpitaux jaugeant plus de 2.000 tonnes brutes.

Tonnage

ARTICLE 27

Aux mêmes conditions que celles qui sont prévues aux articles 22 et 24, les embarcations utilisées par l'Etat ou par des Sociétés de secours officiellement reconnues pour les opérations de sauvetage côtières seront également respectées et protégées dans la mesure où les nécessités des opérations le permettront.

Embarcations
de sauvetage
côtières

Il en sera de même, dans la mesure du possible, pour les installations côtières fixes utilisées exclusivement par ces embarcations pour leurs missions humanitaires.

ARTICLE 28

Dans le cas d'un combat à bord de vaisseaux de guerre, les infirmeries seront respectées et épargnées autant que faire se pourra. Ces infirmeries et leur matériel demeureront soumis aux lois de la guerre, mais ne pourront pas être détournés de leur emploi tant qu'ils seront nécessaires aux blessés et malades. Toutefois, le commandant qui les a en son pouvoir aura la faculté d'en disposer, en cas de nécessités militaires urgentes, en assurant au préalable le sort des blessés et des malades qui y sont traités.

Protection des
infirmeries
de vaisseaux

ARTICLE 29

Tout navire-hôpital se trouvant dans un port qui tombe au pouvoir de l'ennemi sera autorisé à en sortir.

Navire-hôpital
dans un port
occupé

ARTICLE 30

Les navires et embarcations mentionnés aux articles 22, 24, 25 et 27 porteront secours et assistance aux blessés, aux malades et aux naufragés, sans distinction de nationalité.

Emploi des
navires-
hôpitaux et
embarcations

Les Hautes Parties contractantes s'engagent à n'utiliser ces navires et embarcations pour aucun but militaire.

Ces navires et embarcations ne devront gêner en aucune manière les mouvements des combattants.

Pendant et après le combat, ils agiront à leurs risques et périls.

ARTICLE 31

Droit de
contrôle et
de visite

Les Parties au conflit auront le droit de contrôle et de visite sur les navires et embarcations visés aux articles 22, 24, 25 et 27. Elles pourront refuser le concours de ces navires et embarcations, leur enjoindre de s'éloigner, leur imposer une direction déterminée, régler l'emploi de leur T. S. F. et de tous autres moyens de communication et même de les retenir pour une durée maximum de sept jours à partir du moment de l'arraisonnement, si la gravité des circonstances l'exigeait.

Elles pourront mettre temporairement à bord un commissaire, dont la tâche exclusive consistera à assurer l'exécution des ordres donnés en vertu des dispositions de l'alinéa précédent.

Autant que possible, les Parties au conflit inscriront sur le journal de bord des navires-hôpitaux, dans une langue compréhensible pour le commandant du navire-hôpital, les ordres qu'elles leur donneront.

Les Parties au conflit pourront, soit unilatéralement, soit par accord spécial, placer à bord de leurs navires-hôpitaux des observateurs neutres qui constateront la stricte observance des dispositions de la présente Convention.

ARTICLE 32

Séjour dans un
port neutre

Les navires et embarcations désignés aux articles 22, 24, 25 et 27 ne sont pas assimilés aux navires de guerre quant à leur séjour dans un port neutre.

ARTICLE 33

Navires de
commerce
transformés

Les navires de commerce qui auront été transformés en navires-hôpitaux ne pourront être désaffectés pendant toute la durée des hostilités.

ARTICLE 34

Cessation de
la protection

La protection due aux navires-hôpitaux et aux infirmeries de vaisseaux ne pourra cesser que s'il en est fait usage pour commettre, en dehors de leurs devoirs humanitaires, des actes nuisibles à l'ennemi. Toutefois, la protection ne cessera qu'après

sommission fixant, dans tous les cas opportuns, un délai raisonnable et qui serait demeurée sans effet.

En particulier, les navires-hôpitaux ne pourront posséder ni utiliser de code secret pour leurs émissions par T. S. F. ou par tout autre moyen de communication.

ARTICLE 35

Ne seront pas considérés comme étant de nature à priver les navires-hôpitaux ou les infirmeries de vaisseaux de la protection qui leur est due :

Faits ne
privant pas
de protection

- 1) le fait que le personnel de ces navires ou infirmeries est armé et qu'il use de ses armes pour le maintien de l'ordre, pour sa propre défense ou celle de ses blessés et de ses malades ;
- 2) le fait de la présence à bord d'appareils destinés exclusivement à assurer la navigation ou les transmissions ;
- 3) le fait qu'à bord des navires-hôpitaux ou dans les infirmeries de vaisseaux se trouvent des armes portatives et des munitions retirées aux blessés, aux malades et aux naufragés, et n'ayant pas encore été versées au service compétent ;
- 4) le fait que l'activité humanitaire des navires-hôpitaux et infirmeries de vaisseaux ou de leur personnel est étendue à des civils blessés, malades ou naufragés ;
- 5) le fait que des navires-hôpitaux transportent du matériel et du personnel exclusivement destiné à des fonctions sanitaires, en plus de celui qui leur est habituellement nécessaire.

CHAPITRE IV DU PERSONNEL

ARTICLE 36

Le personnel religieux, médical et hospitalier des navires-hôpitaux et leur équipage seront respectés et protégés ; ils ne pourront être capturés pendant le temps où ils sont au service de ces navires, qu'il y ait ou non des blessés et malades à bord.

Protection du
personnel des
navires-
hôpitaux

ARTICLE 37

Le personnel religieux, médical et hospitalier, affecté au service médical ou spirituel des personnes désignées aux articles 12 et 13, qui tombe au pouvoir de l'ennemi, sera respecté et

Personnel
sanitaire et
religieux
d'autres
navires

protégé ; il pourra continuer à exercer ses fonctions aussi longtemps que ce sera nécessaire pour les soins à donner aux blessés et malades. Il devra ensuite être renvoyé aussitôt que le commandant en chef qui l'a en son pouvoir le jugera possible. Il pourra emporter, en quittant le navire, les objets qui sont sa propriété personnelle.

Si toutefois il se révélait nécessaire de retenir une partie de ce personnel par suite des besoins sanitaires ou spirituels des prisonniers de guerre, toutes mesures seront prises pour le débarquer le plus rapidement possible.

A son débarquement, le personnel retenu sera soumis aux dispositions de la Convention de Genève pour l'amélioration du sort des blessés et des malades dans les forces armées en campagne du 12 août 1949.

CHAPITRE V DES TRANSPORTS SANITAIRES

ARTICLE 38

Navires
affrétés pour
le transport
de matériel
sanitaire

Les navires affrétés à cette fin seront autorisés à transporter du matériel exclusivement destiné au traitement des blessés et des malades des forces armées ou à la prévention des maladies, pourvu que les conditions de leur voyage soient signalées à la Puissance adverse et agréées par elle. La Puissance adverse conservera le droit de les arraisonner, mais non de les capturer ni de saisir le matériel transporté.

D'accord entre les Parties au conflit, des observateurs neutres pourront être placés à bord de ces navires pour contrôler le matériel transporté. A cette fin, ce matériel devra être aisément accessible.

ARTICLE 39

Aéronefs
sanitaires

Les aéronefs sanitaires, c'est-à-dire les aéronefs exclusivement utilisés pour l'évacuation des blessés, des malades et des naufragés, ainsi que pour le transport du personnel et du matériel sanitaires, ne seront pas l'objet d'attaques mais seront respectés par les Parties au conflit pendant les vols qu'ils effectueront à des altitudes, à des heures et suivant des itinéraires spécifiquement convenus entre toutes les Parties au conflit intéressées.

Ils porteront ostensiblement le signe distinctif prévu à l'article 41, à côté des couleurs nationales, sur leurs faces inférieure, supérieure et latérales. Ils seront dotés de toute autre

signalisation ou moyen de reconnaissance fixés par accord entre les Parties au conflit soit au début, soit au cours des hostilités.

Sauf accord contraire, le survol du territoire ennemi ou occupé par l'ennemi sera interdit.

Les aéronefs sanitaires devront obéir à toute sommation d'atterrir ou d'amerrir. En cas d'atterrissage ou d'amerrissage ainsi imposés, l'aéronef, avec ses occupants, pourra reprendre son vol après contrôle éventuel.

En cas d'atterrissage ou d'amerrissage fortuits sur territoire ennemi ou occupé par l'ennemi, les blessés, malades et naufragés, ainsi que l'équipage de l'aéronef seront prisonniers de guerre. Le personnel sanitaire sera traité conformément aux articles 36 et 37.

ARTICLE 40

Les aéronefs sanitaires des Parties au conflit pourront, sous réserve du deuxième alinéa, survoler le territoire des Puissances neutres et y atterrir ou amerrir en cas de nécessité ou pour y faire escale. Ils devront notifier préalablement aux Puissances neutres leur passage sur leur territoire et obéir à toute sommation d'atterrir ou d'amerrir. Ils ne seront à l'abri des attaques que durant leur vol à des altitudes, à des heures et suivant des itinéraires spécifiquement convenus entre les Parties au conflit et les Puissances neutres intéressées.

Toutefois, les Puissances neutres pourront fixer des conditions ou restrictions quant au survol de leur territoire par les aéronefs sanitaires ou à leur atterrissage. Ces conditions ou restrictions éventuelles seront appliquées d'une manière égale à toutes les Parties au conflit.

Les blessés, malades ou naufragés débarqués, avec le consentement de l'autorité locale, sur un territoire neutre par un aéronef sanitaire, devront, à moins d'un arrangement contraire de l'Etat neutre avec les Parties au conflit, être gardés par l'Etat neutre, lorsque le droit international le requiert, de manière qu'ils ne puissent pas de nouveau prendre part aux opérations de la guerre. Les frais d'hospitalisation et d'internement seront supportés par la Puissance dont dépendent les blessés, malades ou naufragés.

Survol des
pays neutres.
Blessés
débarqués

CHAPITRE VI

DU SIGNE DISTINCTIF

ARTICLE 41

Application du signe

Sous le contrôle de l'autorité militaire compétente, l'emblème de la croix rouge sur fond blanc figurera sur les drapeaux, les brassards, ainsi que sur tout le matériel se rattachant au Service sanitaire.

Toutefois, pour les pays qui emploient déjà comme signe distinctif à la place de la croix rouge, le croissant rouge ou le lion et le soleil rouges sur fond blanc, ces emblèmes sont également admis dans le sens de la présente Convention.

ARTICLE 42

Identification du personnel sanitaire et religieux

Le personnel visé aux articles 36 et 37, portera, fixé au bras gauche, un brassard résistant à l'humidité et muni du signe distinctif, délivré et timbré par l'autorité militaire.

Ce personnel, outre la plaque d'identité prévue à l'article 19, sera également porteur d'une carte d'identité spéciale munie du signe distinctif. Cette carte devra résister à l'humidité et être de dimensions telles qu'elle puisse être mise dans la poche. Elle sera rédigée dans la langue nationale, mentionnera au moins les noms et prénoms, la date de naissance, le grade et le numéro matricule de l'intéressé. Elle établira en quelle qualité il a droit à la protection de la présente Convention. La carte sera munie de la photographie du titulaire et, en outre, soit de sa signature, soit de ses empreintes digitales, soit des deux à la fois. Elle portera le timbre sec de l'autorité militaire.

La carte d'identité devra être uniforme dans chaque armée et autant que possible du même type dans les armées des Hautes Parties contractantes. Les Parties au conflit pourront s'inspirer du modèle annexé à titre d'exemple à la présente Convention. Elles se communiqueront, au début des hostilités, le modèle qu'elles utilisent. Chaque carte d'identité sera établie, si possible, en deux exemplaires au moins, dont l'un sera conservé par la Puissance d'origine.

En aucun cas, le personnel mentionné ci-dessus ne pourra être privé de ses insignes ni de sa carte d'identité, ni du droit de porter son brassard. En cas de perte, il aura le droit d'obtenir des duplicata de la carte et le remplacement des insignes.

ARTICLE 43

Les navires et embarcations désignés aux articles 22, 24, 25 et 27 se distingueront de la manière suivante :

- a) toutes leurs surfaces extérieures seront blanches ;
- b) une ou plusieurs croix rouge foncé aussi grandes que possible seront peintes de chaque côté de la coque ainsi que sur les surfaces horizontales, de façon à assurer de l'air et de la mer la meilleure visibilité.

Signalisation
des navires-
hôpitaux et
embarcations

Tous les navires-hôpitaux se feront reconnaître en hissant leur pavillon national et en outre, s'ils ressortissent à un Etat neutre, le pavillon de la Partie au conflit sous la direction de laquelle ils se sont placés. Un pavillon blanc à croix rouge devra flotter au grand mât, le plus haut possible.

Les canots de sauvetage des navires-hôpitaux, les canots de sauvetage côtiers et toutes les petites embarcations employées par le Service de Santé seront peints en blanc avec des croix rouge foncé nettement visibles et, d'une manière générale, les modes d'identification stipulés ci-dessus pour les navires-hôpitaux leur seront applicables.

Les navires et embarcations ci-dessus mentionnés, qui veulent s'assurer de nuit et en temps de visibilité réduite la protection à laquelle ils ont droit, devront prendre, avec l'assentiment de la Partie au conflit au pouvoir de laquelle ils se trouvent, les mesures nécessaires pour rendre leur peinture et leurs emblèmes distinctifs suffisamment apparents.

Les navires-hôpitaux qui, en vertu de l'article 31, sont retenus provisoirement par l'ennemi, devront rentrer le pavillon de la Partie au conflit au service de laquelle ils se trouvent, ou dont ils ont accepté la direction.

Les canots de sauvetage côtiers, s'ils continuent, avec le consentement de la Puissance occupante, à opérer d'une base occupée, pourront être autorisés à continuer à arborer leurs propres couleurs nationales en même temps que le pavillon à croix rouge, lorsqu'ils seront éloignés de leur base, sous réserve de notification préalable à toutes les Parties au conflit intéressées.

Toutes les stipulations de cet article relatives à l'emblème de la croix rouge s'appliquent également aux autres emblèmes mentionnés à l'article 41.

Les Parties au conflit devront, en tout temps, s'efforcer d'aboutir à des accords en vue d'utiliser les méthodes les plus modernes se trouvant à leur disposition, pour faciliter l'identification des navires et embarcations visés dans cet article.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION

WARC FOR THE MOBILE SERVICES

GENEVA, September-October 1987

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WORKING GROUP 4-C

The attached draft Resolution is submitted to Working Group 4-C for consideration.

A.R. VISSER
Chairman of Working Group 4-C

DRAFT RESOLUTION [COM 4/13]

**Relating to the Need for Technical Improvements to Minimize
the Risk of Adjacent Channel Harmful Interference Between
Assignments Used for Narrow-Band Direct-Printing (NBDP)
Telegraphy and Data Systems in Accordance with
Appendix 32 [and Resolution No. ...]**

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

considering

- a) that Appendix 32 of the Radio Regulations contains the channelling arrangement for NBDP and data systems (paired frequencies);
- b) that the use of these frequency pairs is subject to the provisions of Article 60 of the Radio Regulations and [Resolution No. ...];
- c) that the spacing between the frequencies listed in Appendix 32 is 500 Hz;
- d) that section 2 of Resolution No. 300 of WARC-79 specifies "that a future competent conference be invited to examine any difficulties which may have arisen in the application of this Resolution" and take the appropriate action;
- e) that the present Conference has decided to adopt No. 4321B which specifies the maximum mean powers to be used by coast stations for F1B and J2B emissions in bands between 4 000 kHz and 27 500 kHz;

resolves

- 1. that administrations cooperate to the fullest extent possible in resolving harmful interference in the adjacent channels;
- 2. that, in the case of harmful interference to adjacent channel operations, due account is to be taken of the date of receipt of the assignment notices by the IFRB;
- 3. that these provisions supplement those of [Resolution No. ...] insofar as adjacent channels harmful interference problems are concerned;

requests the CCIR

- 1. to study the matter of technical compatibility between adjacent channels to determine the need for technical and operational controls;
 - 2. to take into account the maximum mean powers now permitted in No. 4321B for coast radiotelegraph stations employing class F1B or J2B emissions in various bands between 4 000 and 27 500 kHz;
 - 3. to present the results of its studies to the next competent conference.
-

WORKING GROUP 6-ADRAFTREPORT OF DRAFTING GROUP 6-A-4 TO THE
CHAIRMAN OF WORKING GROUP 6A

Drafting Group 6-A-4 has approved revision to Article 60 as shown in the attached annex.

The following are called to the attention of Working Group 6-A:

1. Provisions relating to drafting point No. 8, incorporation of Region 1 MF telephone and telegraph arrangements into Article 60, are shown in []. Article provisions are : Nos. 4183, 4184C, 4188B, 4188C, 4315C, 4319C, 4368A and 4368B;
2. The proposal of Canada concerning Narrow-Band Direct-Printing marking signals, ADD 4313A (Doc. 241), also is shown in [] pending further discussion by the Working Group; and
3. Elimination of sub-bands from Article 60 and reference to a new appendix, in replacement of Appendix 31, is shown by *. The attached provisions are Nos. 4180A, 4180B, 4196, 4197, 4197.1, 4198, 4199, 4200, 4201, 4202, 4203, 4203.1, 4204, 4205, 4205.1, 4206, 4207, 4208, 4209, 4210, 4211, 4315A (Region 1), 4319C (Region 1), 4381, 4382 and 4383.
4. Alignment of frequencies depending on Committee 4 decisions also are shown in [].

If sub-bands references may be deleted from Article 60, in favor of the appendices being prepared by Committee 4, Nos. 4180A and 4180B should be retained and the other provision identities in the above (3) suppressed. If, however, sub-band references should be continued in Article 60, ADD Nos. 4180A and 4180B should be eliminated; and appropriate frequencies substituted in Nos. 4196 et seq. as identified above.

This matter should be called to the attention of Committee 4.

The delegation of Greece expressed a reservation concerning MOD 4184B, consequential to its desire to retain the status at 490 kHz unchanged. This matter is consequential to decisions in Committee 5.

With respect to new Section IV, Use of Frequencies for Digital Selective Calling, the Drafting Group notes that Rec. COM 5/B (MM) of the Regional Administrative Conference for planning of the maritime mobile and aeronautical radionavigation services in Region 1 requests MOB-87 to :

- a) designate the frequency pair 455,5/458,5 kHz, designated for international DSC calling in Region 1, as an international DSC calling channel on a global basis,
- b) designate a frequency pair for international DSC calling in the 2 MHz band.

A frequency pair outside the guardband around 2 MHz would be preferred in order to make it reasonably easy for coast stations with co-located transmitting and receiving antennas to implement and serve this channel while still ensuring continuous capability of reception of weak signals on 2182 kHz and 2187,5 kHz. It is recognized however, that it might not be possible to find vacant spectrum for such a frequency pair outside the guardband around 2182 kHz. Thus the frequency pair 2177 kHz (coast station transmit)/2189,5 kHz (coast station receive) has been suggested as a possible solution, should it be impossible to find spectrum for such a frequency pair outside the guardband.

A need also has been identified for a simplex DSC channel for ship to ship calling in the band 1606,5-4000 kHz (see 4419F).

The foregoing should be called to the attention of Committee 4.

M.W. BERCOVICI
Chairman, Drafting Group 6-A-4

ARTICLE 60

NOC

Special Rules Relating to the Use
of Frequencies in the Maritime Mobile Service

NOC

Section I. General Provisions

*ADD 4180A

A. Frequencies

*ADD 4180B

§ 1. The bands allocated to the Maritime Mobile Service between 415 kHz and 535 kHz, 1605 kHz and 4000 kHz, 4000 kHz and 27500 kHz and 156 MHz and 174 MHz are subdivided for use for Morse Radiotelegraphy, Narrow-Band Direct-Printing Telegraphy, Digital Selective Calling, Wide-Band Telegraphy, Facsimile, Special Transmission Systems, Oceanographic Data Transmissions and Radiotelephony as shown in Appendices [].

MOD 4180C

B. Single-Sideband Morse
Radiotelegraph Transmissions

SUP 4181
Mob-83

§ 1. Stations employing single-sideband Morse radiotelegraph transmissions shall use upper-sideband emissions. The frequencies specified in these Regulations for class H2A and H2B* emissions such as 500 kHz and 8364 kHz shall be used as carrier frequencies.

ADD 4181A

Where in this Article provisions specify A1A emission, class A1B or J2A emission shall be considered equivalent.

ADD 4181B

Where in this Article provisions specify class F1B emission, class J2B emission shall be considered equivalent.

NOC 4182
Mob-83

B. Bands Between 415 kHz and 535 kHz

MOD 4183

2. Except as provided.....(see No. 4237) [(see also Nos. 4184C and 4315C)].

SUP 4184
Mob-83

MOD 4184A

§ 3A. In the maritime mobile service on the frequency 518 kHz no assignments shall be made other than for transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of automatic narrow-band direct-printing telegraphy (NAVTEX) (see Resolution No. 318 (MOB-83)).

MOD 4184B

3B. In the maritime mobile service the frequency 490 kHz is also used exclusively for distress-and-safety-calls-in-the-shore-to-ship-direction-by-digital-selective-calling-techniques-(see-No-2944) the transmission by coast stations of navigational and meteorological warnings and urgent information to ships by means of automatic narrow-band direct-printing telegraphy. Additional-conditions-concerning-the-use-of-this-frequency-are-given-in-Resolution-206-(Mob-83).

[ADD 4184C 3C. The channelling arrangements for Morse telegraphy, narrow band direct-printing telegraphy and digital selective calling in the band 415-526.5 kHz in Region 1 are shown in Table A of Appendix A.]

SUP 4185 and 4186 SUP
Mob-83

NOC 4187 C. Bands Between 1 605 kHz and 4 000 kHz

NOC 4188 - 4188A

[ADD 4188B (1B) The channelling arrangements for narrow-band direct-printing telegraphy and digital selective calling in the bands 1606.5-1625 kHz and 2141.5-2160 kHz in Region 1 are shown in Table B of Appendix A.]

[ADD 4188C (1C) The channelling arrangements for radiotelephony in the bands 1635-1800 kHz and 2045-2141.5 kHz in Region 1 are shown in Table C of Appendix A.]

SUP 4189 (2) In these bands, in Region 1, the channel spacing for
Mob-83 narrow-band direct-printing telegraphy and for digital selective calling is 0.5 kHz and for single-sideband radiotelephony it is 3 kHz.

SUP 4190 to 4192
Mob-83

NOC 4193

SUP 4194
Mob-83

NOC 4195 D. Bands Between 4 000 kHz and 27 500 kHz

SUP 4196 § 9. (1) The bands exclusively allocated to the maritime mobile service between 4 000 kHz and 27 500 kHz (see Article 8) are subdivided into the following categories:

SUP 4197 a) Ship stations, telephony, duplex operation (two-
Mob-83 frequency channels)¹

4 063 - 4 143.6 kHz
6 200 - 6 218.6 kHz
8 195 - 8 291.1 kHz
12 330 - 12 429.2 kHz
16 460 - 16 587.1 kHz
22 000 - 22 124 kHz

SUP 4198 b) Coast stations, telephony, duplex operation (two-
frequency channels)

4 357.4 - 4 438 kHz
6 506.4 - 6 525 kHz
8 718.9 - 8 815 kHz
13 100.8 - 13 200 kHz
17 232.9 - 17 360 kHz
22 596 - 22 720 kHz

SUP 4197.1 ¹ For the use of some of the frequencies in these sub-bands by
Mob-83 ship and coast stations for distress and safety purposes, see Article 38.

- SUP **4199** c) *Ship stations and coast stations, telephony, simplex operation (single-frequency channels) and intership cross-band operation (two frequencies)*
- 4 143.6 - 4 146.6 kHz
6 218.6 - 6 224.6 kHz
8 291.1 - 8 297.3 kHz
12 429.2 - 12 439.5 kHz
16 587.1 - 16 596.4 kHz
22 124 - 22 139.5 kHz
- SUP **4200** d) *Ship stations, wide-band telegraphy, facsimile and special transmission systems*
- 4 146.6 - 4 162.5 kHz
4 166 - 4 170 kHz
6 224.6 - 6 244.5 kHz
6 248 - 6 256 kHz
8 300 - 8 328 kHz
8 331.5 - 8 343.5 kHz
12 439.5 - 12 479.5 kHz
12 483 - 12 491 kHz
16 596.4 - 16 636.5 kHz
16 640 - 16 660 kHz
22 139.5 - 22 160.5 kHz
22 164 - 22 192 kHz
- SUP **4201** e) *Ship stations, oceanographic data transmission (see note c) in Appendix 31)*
- 4 162.5 - 4 166 kHz
6 244.5 - 6 248 kHz
8 328 - 8 331.5 kHz
12 479.5 - 12 483 kHz
16 636.5 - 16 640 kHz
22 160.5 - 22 164 kHz

SUP 4202 f) *Ship stations*, narrow-band direct-printing telegraph and data transmission systems, at speeds not exceeding 100 bauds (frequencies paired with those in No. 4207)

4 170 - 4 177.25 kHz
6 256 - 6 267.75 kHz
8 343.5 - 8 357.25 kHz
12 491 - 12 519.75 kHz
16 660 - 16 694.75 kHz
22 192 - 22 225.75 kHz

SUP 4203 Mob-83 g) *Ship stations*, narrow-band direct-printing telegraph and data transmission systems, at speeds not exceeding 100 bauds (non-paired frequencies) ¹

4 177.25 - 4 179.75 kHz
6 267.75 - 6 269.75 kHz
8 297.3 - 8 300 kHz
8 357.25 - 8 357.75 kHz
12 519.75 - 12 526.75 kHz
16 694.75 - 16 705.8 kHz
22 225.75 - 22 227 kHz
25 076 - 25 090.1 kHz

SUP 4204 h) *Ship stations*, A1A Morse telegraphy, calling

4 179.75 - 4 187.2 kHz
6 269.75 - 6 280.8 kHz
8 359.75 - 8 374.4 kHz
12 539.6 - 12 561.6 kHz
16 719.8 - 16 748.8 kHz
22 227 - 22 247 kHz
25 070 - 25 076 kHz

SUP 4203.1 Mob-83 ¹ For the use of some of the frequencies in these sub-bands by ship and coast stations for distress and safety purposes, see Article 38.

SUP **4205**
Mob-83

i) *Ship stations, digital selective calling*¹

4 187.2 - 4 188.25 kHz
6 280.8 - 6 282.25 kHz
8 374.4 - 8 376 kHz
12 561.6 - 12 564 kHz
16 748.8 - 16 752 kHz
22 247 - 22 250 kHz

SUP **4206**
Mob-83

j) *Ship stations, A1A Morse telegraphy, working*

4 188.25 - 4 219.4 kHz
6 282.25 - 6 325.4 kHz
8 357.75 - 8 359.75 kHz
8 376 - 8 435.4 kHz
12 526.75 - 12 539.6 kHz
12 564 - 12 652.3 kHz
16 705.8 - 16 719.8 kHz
16 752 - 16 859.4 kHz
22 250 - 22 310.5 kHz
25 090.1 - 25 110 kHz

SUP **4207**

k) *Coast stations, narrow-band direct-printing telegraph and data transmission systems, at speeds not exceeding 100 bauds (frequencies paired with those in No. 4202)*

4 349.4 - 4 356.75 kHz
6 493.9 - 6 505.75 kHz
8 704.4 - 8 718.25 kHz
13 070.8 - 13 099.75 kHz
17 196.9 - 17 231.75 kHz
22 561 - 22 594.75 kHz

SUP **4205.1**
Mob-83

¹ For the use of some of the frequencies in these sub-bands by ship and coast stations for distress and safety purposes, see Article 38.

- SUP 4208 l) *Coast stations*, digital selective calling
- 4 356.75 - 4 357.4 kHz
6 505.75 - 6 506.4 kHz
8 718.25 - 8 718.9 kHz
13 099.75 - 13 100.8 kHz
17 231.75 - 17 232.9 kHz
22 594.75 - 22 596 kHz
- SUP 4209 m) *Coast stations*, wide-band and A1A Morse telegraphy, facsimile, special and data transmission systems and direct-printing telegraph systems
- 4 219.4 - 4 349.4 kHz
6 325.4 - 6 493.9 kHz
8 435.4 - 8 704.4 kHz
12 652.3 - 13 070.8 kHz
16 859.4 - 17 196.9 kHz
22 310.5 - 22 561 kHz
- SUP 4210 (2) Frequencies in the bands 25 010 - 25 070 kHz, 25 110 - 25 600 kHz and 26 100 - 27 500 kHz may be assigned to coast stations.
- SUP 4211 § 10. (1) Appendix 16 shows the radiotelephone channels in the frequency bands listed in Nos. 4197, 4198 and 4199.
- MOD 4212 (2) The Frequency Allotment Plan for coast radiotelephone stations in the high frequency bands is contained in Appendix 25 [(see also Resolutions D and E)].
- MOD 4212A (3) The bands 4000-4063 kHz and 8100-8195 kHz, allocated on a shared basis to the maritime mobile service (see Article 8), shall be used in accordance with Sections C-1 and C-2 of Table B of Appendix 16 31A.
- NOC 4213 E. *Bands Between 156 MHz and 174 MHz*
- NOC 4214
- NOC Mob-83 Section II. Use of Frequencies for Morse Radiotelegraphy
- NOC 4215 A. *General*
- ADD 4215A § 11A. Stations employing single-sideband Morse radiotelegraph transmissions shall use upper-sideband emissions. The frequencies specified in these Regulations for class H2A and H2B* emissions such as 500 kHz and 8 364 kHz shall be used as carrier frequencies.
- NOC 4216
- NOC 4217 Mob-83 B. *Bands Between 415 kHz and 535 kHz*
- NOC * This is to cater for the automatic reception of the radiotelegraph alarm signal.
- NOC ** This is to cater for the automatic reception of the radiotelegraph alarm signal and for selective calling.

NOC B1. Call and Reply

MOD 4218 The frequency 500 kHz is the international distress frequency for Morse radiotelegraphy (see No. 2970 for details of its use for distress, urgency and safety purposes).

NOC 4219-4231

NOC B2. Traffic

NOC 4232-4236

MOD 4237 20. (1) Ship stations operating in the authorized bands between ~~[405-415]~~ kHz and 535 kHz shall use working frequencies chosen from the following: 425 kHz¹, 454 kHz, 468 kHz, 480 kHz and 512 kHz, except as permitted by No. 961.

[ADD 4237A With effect from 15 April 1992, the provisions of No. 4237 with the exception of the reference to No. 961, do not apply to Region 1, which is covered by the Frequency Plan of the Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985, RARC MM-R1).]

NOC 4238-4243

MOD 4244 C. Bands Between 1 605 kHz and 4 000 kHz
Additional Provisions Applicable in Region 3 Areas North of the Equator Only

SUP C1. Region 2

SUP 4245 § 21. In Region 2, the frequencies in the band 2 068.5 - 2 078.5 kHz are assigned to ship stations using wide-band telegraphy, facsimile and special transmission systems. The provisions of No. 4254 are applicable.

SUP C2. Additional Provisions Applicable in Region 3 Areas North of the Equator Only

MOD 4246 22. (1) The band 2089.5 - 2092.5 kHz is the calling and safety band for Morse radiotelegraphy in those parts of the bands between 1605 kHz and 2850 kHz in which Morse radiotelegraphy is authorized.

NOC 4247-4248

MOD 4249 (4) Coast stations which use frequencies in the band 2089.5 - 2092.5 kHz for calling shall be able to use at least one other frequency in those part of the band between 1605 kHz and 2850 kHz in which Morse radiotelegraphy is authorized.

NOC 4250-4251

[ADD 4237.1 ¹458 kHz will replace 425 kHz on 1 April 1992.]

NOC 4252 D. Bands Between 4 000 kHz and 27 500 kHz

NOC D1. General

MOD 4253 § 23. (1) Ship radiotelegraph stations equipped to operate in the bands specified Morse in [Nos. 4204 and 4206] shall employ only classes of emissions mentioned in 4181A for Morse telegraphy at speeds not exceeding ... (continues unchanged).

SUP 4254 (2) Ship stations equipped for wide-band telegraphy, facsimile and special transmission systems may, in the frequency bands reserved for such use, employ any class of emission provided that such emissions can be contained within the wide-band channels indicated in Appendix 31. However, A1A Morse telegraphy and telephony are excluded, except for circuit alignment purposes.

MOD 4255 (3) Except as provided for in No. 4376.1, coast Morse radiotelegraph stations operating in the maritime mobile exclusive bands between 4000 kHz and 27500 kHz shall not use Type 2 emissions (see No. 4216).

MOD 4256 (4) Coast Morse radiotelegraph stations employing single-channel class A1A or-F4B emissions and operating in the maritime mobile exclusive bands between 4000 kHz and 27500 kHz shall at no time use a mean power in excess of the following:

Band	Maximum mean power
4 MHz	5 kW
6 MHz	5 kW
8 MHz	10 kW
12 MHz	15 kW
16 MHz	15 kW
22 MHz	15 kW
<u>25 MHz</u>	<u>15 kW</u>

SUP 4257 (5) Coast radiotelegraph stations employing multichannel telegraph emissions and operating in the maritime mobile exclusive bands between 4 000 kHz and 27 500 kHz shall at no time use a mean power in excess of 2.5 kW per 500 Hz bandwidth.

MOD 4258 24. [~~Nos. 4288 to 4289~~ 4196H, 4196J and 4196M] and the corresponding columns of [Table A of Appendix 31 31A] show those parts of the bands between 4000 kHz and 27500 kHz exclusively allocated to the maritime mobile service which are to be used by coast stations and ship stations for Morse radiotelegraphy.

NOC D2. Call and Reply

MOD 4259 25. (1) In order to establish communication with a coast station, each ship station shall use an appropriate Morse radiotelegraphy calling frequency in one of the bands listed in [~~No. 4284~~ Table E of Appendix 31A].

NOC 4260-4262

MOD 4263 28. (1) The calling frequency to be used for Morse radiotelegraphy by a coast station, in each of the bands for which it is equipped, is its normal working frequency as shown in heavy type in the List of Coast Stations.

NOC 4264

SUP 4265 § 29. The exclusive digital selective calling frequencies within
Mob-83 the bands indicated in No. 4208 (see No. 4684) may be assigned to any coast station. In order to reduce interference on these frequencies, they may be used as a general rule by coast stations to call ships of another nationality or if it is not known on which of the national calling frequencies allocated to digital selective calling the ship station is maintaining watch.

NOC 4266-4270

MOD 4271 33. In order to reduce interference on Morse radiotelegraphy calling frequencies, a coast station shall take adequate steps to ensure, under normal conditions, the prompt receipt of Morse radiotelegraphy calls (see No. 4755).

NOC

D3. Traffic

MOD 4272

34. (1) A ship station, after establishing communication on a Morse radiotelegraphy calling frequency (see No. 4259), shall change to a Morse radiotelegraphy working frequency for the transmission of traffic. The use of frequencies in the Morse radiotelegraphy calling bands for any purpose other than Morse radiotelegraphy calling shall be prohibited.

MOD 4273

(2) Morse radiotelegraphy working frequencies shall be assigned to ship stations in accordance with the provisions of Nos. 4288 to 4291 and 4306 inclusive.

NOC 4274

MOD 4275

(2) Countries which share a Morse radiotelegraphy channel in one of the exclusive maritime mobile bands between 4000 kHz and 27500 kHz should give special consideration to the countries among them which have no other Morse radiotelegraphy channel in the same band and should endeavour to use their primary Morse radiotelegraphy channel to the greatest extent possible, in order to permit the latter countries to satisfy their minimum communication requirements.

NOC 4276 E. Assignment of Frequencies to Ship Stations

NOC E1. Calling Frequencies of Ship Stations

MOD 4277 36. Each Morse radiotelegraphy calling band between 4000 kHz and ~~23000~~ 27500 kHz indicated in [No. 4204 4196H] is divided into ~~four~~ groups of channels and ~~two~~ common channels. The 25 MHz band is divided into ~~three~~ channels of which ~~one~~ is a common channel [see Table C of Appendix 34 31A].

MOD 4278 37. (1) Coast stations shall, when providing international service as published in the List of Coast Stations, keep watch on the Morse radiotelegraphy common calling channels in each band throughout their hours of service in the bands concerned, and on the appropriate Morse radiotelegraphy group channel or channels during busy periods. The times during which watch will be kept on the Morse radiotelegraphy group channel or channels shall be published for each country in the List of Coast Stations.

MOD 4279 (2) If necessary, an indication of the Morse radiotelegraphy channels on which watch is kept may be included in the coast station transmissions.

MOD 4280 38. In the bands between 4000 kHz and ~~23000~~ 27500 kHz, the administration to which a ship station is subject shall assign to it at least two Morse radiotelegraphy calling frequencies in each band in which the station is equipped to transmit. One of the calling frequencies in each band shall be within one of the common coast station receiving channels contained in Table C of Appendix 34 31A; another in each band shall be selected from within the other channels in Table C of Appendix 34 31A; taking account of the receiving channel or channels of the coast station with which the ship station most frequently communicates. In the 25 MHz band, administrations shall assign to ship stations under their control a frequency within the common channel. Another calling frequency in this band shall be selected from ~~[within Channel A or B]~~ Table C of Appendix 34 31A, taking account of the receiving channel of the coast station with which the ship station most frequently communicates.

- MOD 4281 39. A ship station should, wherever possible, be assigned additional Morse radiotelegraphy calling frequencies (see No. 4262).
- MOD 4282 40. If it is not intended to maintain watch on all the Morse radiotelegraphy receiving (Resolution 312)...
- MOD 4283 41. Administrations which assign to their ships frequencies in two or more Morse radiotelegraphy calling use.
- MOD 4284 42. In order to ensure an even distribution of Morse radio-telegraphy calls ships.
- MOD 4285 43. Administrations assigned Morse radiotelegraphy channels (see Appendix 7).
- SUP 4286 § 44. The exclusive digital selective calling frequencies within the bands indicated in No. 4205 (see No. 4683) may be assigned to any ship station for use in accordance with No. 4681.
- NOC E2. Working Frequencies of Ship Stations
- NOC 4287 a) *Channel Spacing and Assignment of Frequencies*
- SUP 4288 § 45. In all bands, the working frequencies for ship stations equipped to use wide-band telegraphy, facsimile and special transmission systems are spaced 4 kHz apart. The frequencies assignable are shown in Appendix 31.
- SUP 4289 § 46. In all bands, the frequencies assignable for oceanographic data transmissions are spaced 0.3 kHz apart. The frequencies assignable are shown in Appendix 31.
- SUP 4290 § 47. In all bands, the working frequencies for ship stations using narrow-band direct-printing telegraph and data transmission systems, at speeds not exceeding 100 bauds, including those paired with the working frequencies assignable to coast stations (see No. 4207), are spaced 0.5 kHz apart. The frequencies assignable to ship stations which are paired with those used by coast stations are shown in Appendix 32 (see also No. 4202). The frequencies assignable to ship stations which are not paired with those used by coast stations are shown in Appendix 33 (see also No. 4203).
- MOD 4291 § 48. In all bands, ~~except the 6 MHz band~~, the working frequencies for ship stations using A1A Morse telegraphy, at speeds not exceeding 40 bauds, are spaced 0.5 kHz apart. ~~in the 6 MHz band they are spaced 0.75 kHz apart (see also note c) to Appendix 31).~~

- SUP 4292 § 49. In the 4, 6, 8, 12 and 16 MHz bands, certain frequencies are harmonically related as shown in Appendix 35.
- SUP 4293 b) *Working Frequencies for Ship Stations Using Wide-Band Telegraphy, Facsimile and Special Transmission Systems*
- SUP 4294 § 50. (1) Each administration shall assign to each ship station under its jurisdiction and employing wide-band telegraphy, facsimile and special transmission systems one or more series of the working frequencies reserved for this purpose and shown in Appendix 31. The total number of series assigned to each ship shall be determined by traffic requirements.
- SUP 4295 (2) When ship stations employing wide-band telegraphy, facsimile and special transmission systems are assigned less than the total number of working frequencies in a band, the administration concerned shall assign working frequencies to such ships in accordance with an orderly system of rotation that will ensure approximately the same number of assignments on any one working frequency.
- SUP 4296 (3) However, within the limits of the bands given in No. 4200, administrations may, to meet the needs of specific systems, assign frequencies in a different manner from that shown in Appendix 31. Nevertheless administrations shall take into account, as far as possible, the provisions of Appendix 31 concerning channelling and 4 kHz spacing.
- SUP 4297 c) *Working Frequencies for Oceanographic Data Stations*
- SUP 4298 § 51. The frequency bands in No. 4201 may also be used by buoy stations for oceanographic data transmission and by stations interrogating these buoys.
- SUP 4299 § 52. Each administration may assign to each station under its jurisdiction of a type specified in Nos. 4201 and 4298 one or more of the assignable frequencies designated in Appendix 31.
- SUP 4300 d) *Working Frequencies (paired with those in No. 4207) for Ship Stations Using Narrow-Band Direct-Printing Telegraph and Data Transmission Systems, at Speeds Not Exceeding 100 Bauds*
- SUP 4301 § 53. The frequency pairs assignable to coast stations and ship stations using narrow-band direct-printing telegraph and data transmission systems are indicated in Appendix 32.
- SUP 4302 § 54. When assigning frequencies listed in Appendix 32 for narrow-band direct-printing telegraph and data transmission systems, administrations shall apply the procedure described in Resolution 300.
- SUP 4303 e) *Working Frequencies (non-paired) for Ship Stations Using Narrow-Band Direct-Printing Telegraph and Data Transmission Systems, at Speeds Not Exceeding 100 Bauds*
- SUP 4304 § 55. When assigning frequencies listed in Appendix 33 for narrow-band direct-printing telegraph and data transmission systems, administrations shall take due account of the information entries in the Master Register resulting from the notification procedure contained in Resolution 301.

(MOD) 4305 f) b) Working Frequencies for Ship Stations Using A1A Morse Telegraphy

MOD 4306 56. Each administration sufficient number of Morse radiotelegraphy working frequencies in any not less than two Morse radiotelegraphy working frequencies should throughout the bands.

MOD 4306A 56A. In cases on the Morse radiotelegraphy working frequency stated transmission on any other Morse radiotelegraphy working frequency, whenever Q00.

MOD 4307 57. For the exclusive purpose of communication by Morse radiotelegraphy with stations of the maritime mobile service, an aircraft station may be assigned one or more Morse radiotelegraphy working frequencies in the bands shown in No. 4266 4196J. These as for ship stations.

MOD 4308 g) c) Abbreviations for the Indication of Morse Radiotelegraphy Working Frequencies

MOD 4309 58. In the designate a Morse radiotelegraphy working frequency:

NOC 4310-4311

NOC Section III. Use of Frequencies for Narrow-Band Direct-Printing Telegraphy

NOC 4312 A. General

MOD 4313 59. Frequencies assigned to coast stations for narrow-band direct-printing telegraphy shall be indicated each coast station.

[ADD 4313A Coast stations in the MF and HF bands may emit marking signals. The emission power of the signals shall, however, be limited to the minimum value necessary for effective operation of the signalling. Such emissions shall not cause harmful interference to maritime mobile operations in other countries.]

NOC 4314 B. Bands Between 415 kHz and 535 kHz
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MOD 4315 60. (1) All ship stations equipped with narrow-band direct-printing transmitting apparatus to work in the authorized bands between 415 kHz and 535 kHz shall be able to send and receive class F1B emissions on at least two working frequencies for narrow-band direct-printing telegraphy (see No. 4237¹) as specified in Nos. 4123E and 4123F. Additionally, ship stations complying with the provisions of Chapter NIX shall be able to receive class F1B emissions on 518 kHz (see No. 4123G).

SUP 4315A (1A) All ship stations equipped with narrow-band direct-printing telegraph apparatus to work in the authorized bands between 415 kHz and 535 kHz shall be able to receive class F1B emissions on 518 kHz.
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* [ADD 4315C 60B. The channelling arrangements for narrow-band direct-printing telegraphy and digital selective calling in the band 415-526.5 kHz in Region 1 are shown in Table A of Appendix A.]

[SUP] 4316 (2) Narrow-band direct-printing telegraphy is forbidden in the band 490 - 510 kHz.

NOC 4317 C. Bands Between 1 605 kHz and 4 000 kHz

NOC 4318

MOD 4319 (2) Narrow-band No. 2971D N2971F

* [ADD 4319C 61B. The channelling arrangements for narrow-band direct-printing telegraphy and digital selective calling in the bands 1606.5-1625 kHz and 2145.5-2160 kHz in Region 1 are shown in Table B of Appendix A.]

SUP 4315.1 ¹ In the European Maritime Area, use of these class F1B emissions is subject to special arrangements between interested and affected administrations.

NOC 4320 D. Bands Between 4 000 kHz and 27 500 kHz

MOD 4321 ~~62. All ship F1B emissions on-at-least-two-freq-
uencies-in-each-band-as-required-by-their-service as specified
in Nos. 4123A and 4123Q. The assignable frequencies are
indicated in [Tables D and G of Appendices Appendix 32-and-33
31A].~~

SUP 4321A § 62A. Ship and coast stations may use the digital selective
Mob-83 calling system in accordance with Article 62.

ADD 4321B 62B. Coast stations employing class F1B emissions and oper-
ating in the maritime mobile exclusive bands between 4000 kHz
and 27500 kHz shall at no time use mean powers in excess of
the following:

Band	Maximum mean power
4 MHz	5 kW
6 MHz	5 kW
8 MHz	10 kW
12 MHz	15 kW
16 MHz	15 kW
18 MHz	15 kW
22 MHz	15 kW
25 MHz	15 kW

ADD 4321C (1) In all bands, the working frequencies for ship
stations using narrow-band direct-printing telegraph,
at speeds not exceeding 100 bauds, including those paired
with the working frequencies assignable to coast stations
(see No. 4196K), are spaced 0.5 kHz apart. The frequencies
assignable to ship stations which are paired with those
used by coast stations are shown in [Table D of
Appendix 31A (see also No. 4321D)]. The frequencies
assignable to ship stations which are not paired with
those used by coast stations are shown in [Table G of
Appendix 31A (see also No. 4196G)].

[ADD 4321D (2) When assigning frequencies listed in [Table D
of Appendix 31A] for narrow-band direct-printing tele-
graph, administrations shall apply the procedure described
in Resolution No. C.]

ADD 4321E (3) Each administration, if necessary, shall assign
to each ship station under its jurisdiction and employing
non-paired narrow-band direct-printing telegraph one or
more frequencies reserved for this purpose and shown in
[Table G of Appendix 31A (see also Resolution No. F)].

NOC 4322 E. Bands Between 156 MHz and 174 MHz

MOD 4323 63. All ship stations equipped with ~~narrow-band~~
direct-printing telegraph apparatus may work in the
authorized bands between 156 MHz and 174 MHz and shall
conform to the provisions of Appendix 18.

ADD Section IIIA. Use of Frequencies for Digital Selective Calling

ADD 4417

A. General

ADD 4417A The provisions described in this section are applicable to calling and acknowledgement using digital selective-calling techniques, except in cases of distress, urgency and safety, to which the provisions of Chapter N IX are applicable

ADD 4417B The characteristics of the digital selective-calling equipment shall be in accordance with the relevant Recommendations of the CCIR.

ADD 4417C The frequencies on which coast stations provide services using digital selective calling techniques shall be indicated in the List of Coast Stations, which shall also indicate any other useful information concerning such services.

ADD 4418

B. Bands Between 415 kHz and 526.5 kHz

ADD

B1. Mode of Operation

ADD 4418A The class of emission to be used for digital selective calling and acknowledgement in the authorized bands between 415 kHz and 526.5 kHz shall be F1B.

ADD 4418B Coast stations should, when transmitting digital selective calls and acknowledgements in the bands between 415 kHz and 526.5 kHz, use the minimum power necessary to cover their service area.

ADD 4418C Transmissions of digital selective calls and acknowledgements by ship stations shall be limited to a mean power of 400 Watts.

ADD B2. Call and Acknowledgement

ADD 4418D For call and acknowledgement by digital selective-calling techniques and appropriate calling channel shall be used.

ADD 4418E The international digital selective-calling frequency [455.5] kHz may be assigned to any coast station. In order to reduce interference on this frequency, it may be used as a general rule by coast stations to call ships of another nationality or if it is not known on which digital selective-calling frequencies within these bands the ship station is maintaining watch.

- ADD 4418F The international digital selective-calling frequency [458.5] kHz may be used by any ship station. In order to reduce interference on this frequency, it shall only be used when calling cannot be made on national frequencies assigned to the coast station.
- ADD 4418G The frequency to be used for transmission of an acknowledgement shall normally be the frequency paired with the calling frequency used.
- ADD B3. Watch
- ADD 4418H A coast station providing international public correspondence service using digital selective-calling techniques within the bands between 415 kHz and 526.5 kHz should, during its hours of service, maintain automatic digital selective-calling watch on appropriate national and/or international calling frequencies. The hours and frequencies shall be indicated in the List of Coast Stations.
- ADD 4418I Ship stations equipped with apparatus for digital selective calling to work in the authorized bands between 415 kHz and 526.5 kHz should, when within coverage area of coast stations providing services using digital selective-calling techniques in these bands, maintain an automatic digital selective-calling watch on one or more appropriate digital selective-calling frequencies within these bands, taking into account the digital selective-calling frequencies operated by the coast stations.
- ADD 4419 C. Bands Between 1 605 kHz and 4 000 kHz
- ADD C1. Mode of Operation
- ADD 4419A The class of emission to be used for digital selective calling and acknowledgement in the bands between 1 605 kHz and 4 000 kHz shall be F1B or J2B.
- ADD 4419B Coast stations should, when transmitting digital selective calls and acknowledgements in the bands between 1 605 kHz and 4 000 kHz, use the minimum power necessary to cover their service area.
- ADD 4419C Transmissions of digital selective calls and acknowledgements by ship stations shall be limited to a mean power of 400 Watts.

ADD

C2. Call and Acknowledgement

ADD 4419D

When calling a coast station by digital selective-calling techniques, ship stations should use for the call, in the order of preference:

- a) a national digital selective calling channel on which the coast station is maintaining watch;
- b) subject to the provisions of No. 4419E, the international digital selective calling frequency [2189.5] kHz.

ADD 4419E

The international digital selective-calling frequency [2 189.5] kHz may be assigned to any ship station. In order to reduce interference on this frequency, it may be used as a general rule by ship stations to call coast stations of another nationality.

[ADD 4419F

A ship station calling another ship station by using digital selective-calling techniques should use the intership calling frequency [] kHz for the call.]

ADD 4419G

When calling ship stations by digital selective-calling techniques, coast stations should use for the call, in the order of preference:

- a) a national digital selective-calling channel on which the coast station is maintaining watch;
- b) subject to the provisions of No. 4419H, the international digital selective-calling frequency [2177] kHz.

ADD 4419H

The international digital selective-calling frequency [2 177] kHz may be assigned to any coast station. In order to reduce interference on this frequency, it may be used as a general rule by coast stations to call ships of another nationality or if it is not known on which digital selective-calling frequencies within the bands between 1 605 kHz and 4 000 kHz the ship station is maintaining watch.

ADD 4419I

The frequency for transmission of an acknowledgement shall normally be the frequency paired with the frequency used for the call received.

ADD C3. Watch

ADD 4419J The provisions detailed in this sub-section are applicable to digital selective-calling watchkeeping except for distress, urgency and safety purposes, to which the provisions of Section III of Article N 38 are applicable.

ADD 4419K A coast station providing international public correspondence service using digital selective-calling techniques within the bands between 1 605 kHz and 4 000 kHz should, during its hours of service, maintain automatic digital selective calling watch on appropriate national and/or international calling frequencies. The hours and frequencies shall be indicated in the List of Coast Stations.

ADD 4419L Ship stations equipped with apparatus for digital selective calling to work in the authorized bands between 1 605 kHz and 4 000 kHz should, when within coverage area of coast stations providing services using digital selective-calling techniques in these bands, maintain an automatic digital selective-calling watch on one or more appropriate digital selective-calling frequencies within these bands, taking into account the digital selective-calling frequencies operated by the coast stations.

ADD 4420 D. Bands Between 4 000 kHz and 27 500 kHz

ADD D1. Mode of Operation

ADD 4420A The class of emission to be used for digital selective calling and acknowledgement in the authorized bands between 4 000 kHz and 27 500 kHz shall be F1B,

ADD 4420B When transmitting digital selective calls and acknowledgements in the bands between 4 000 kHz and 27 500 kHz, coast stations shall, in no event, use mean power in excess of the following values:

<u>Band</u>	<u>Maximum mean power</u>
4 MHz	5 kW
6 MHz	5 kW
8 MHz	10 kW
12 MHz	15 kW
16 MHz	15 kW
18 MHz	15 kW
22 MHz	15 kW
25 MHz	15 kW

ADD 4420C Transmissions of digital selective calls and acknowledgements by ship stations in the bands between 4 000 kHz and 27 500 kHz shall be limited to a mean power of 1.5 kW.

ADD

D2. Call and Acknowledgement

ADD 4420D

A station calling another station by digital selective-calling techniques within the authorized bands between 4 000 kHz and 27 500 kHz should choose an appropriate digital selective calling frequency, taking into account propagation characteristics.

ADD 4420E

When calling a coast station by digital selective-calling techniques on frequencies within the authorized bands between 4 000 kHz and 27 500 kHz ship stations should use for the call, in the order of preference:

- a) a national basis as frequency assigned on a digital selective-calling channel on which the coast station is maintaining watch;
- b) subject to the provisions of No. 4420F, one of the international digital selective-calling frequencies mentioned in No. 4683.

ADD 4420F

The international digital selective-calling frequencies indicated in No. 4683 may be used by any ship station. In order to reduce interference on these frequencies, it shall only be used when calling cannot be made on nationally assigned frequencies.

ADD 4420G

When calling ship stations by digital selective-calling techniques on frequencies within the bands between 4 000 kHz and 27 500 kHz coast stations should use for the call, in the order of preference:

- a) a national basis as frequency assigned on a digital selective-calling channel on which the coast station is maintaining watch;
- b) subject to the provisions of No. 4420H, one of the international digital selective-calling frequencies indicated in No. 4684.

ADD 4420H

The international digital selective-calling frequencies indicated in No. 4684 may be assigned to any coast station. In order to reduce interference on these frequencies, they may be used as a general rule by coast stations to call ships of another nationality or if it is not known on which digital selective-calling frequencies within the bands concerned the ship station is maintaining watch.

ADD

D3. Watch

ADD 4420I

The provisions detailed in this sub-section are applicable to digital selective-calling watchkeeping except for distress, urgency and safety purposes, to which the provision of Section III of Article N 38 are applicable.

ADD 4420J A coast station providing international public correspondence service using digital selective-calling techniques within the bands between 4 000 kHz and 27 500 kHz should, during its hours of service, maintain automatic digital selective-calling watch on the appropriate digital selective-calling frequencies as indicated in the List of Coast Stations.

ADD 4420K Ship stations equipped with apparatus for digital selective calling to work in the authorized bands between 4 000 kHz and 27 500 kHz should maintain automatic digital selective-calling watch at appropriate digital selective-calling frequencies within these bands, taking into account propagation characteristics and calling frequencies for coast stations providing service using digital selective-calling techniques.

ADD 4421

E. Bands Between 156 MHz and 174 MHz

ADD

E1. Mode of Operation

ADD 4421A

The class of emission to be used for digital selective calling and acknowledgement in the authorized bands between 156 MHz and 174 MHz shall be G2B.

ADD

E2. Call and Acknowledgement

ADD 4421B

The frequency 156.525 MHz is an international frequency in the maritime mobile service used for distress, urgency and safety calling by digital selective-calling techniques (see No. N 2993B),

ADD 4421C

The frequency 156.525 MHz is the international digital selective calling frequency also used for:

- a) announcement of urgency messages (see No. N3195P) and safety messages (see No. N3230);
- b) call and acknowledgement in accordance with the provisions of Nos. 4686 to 4689.

ADD 4421D

When calling by digital selective calling techniques within the authorized bands between 156 MHz and 174 MHz, the calling from ship to coast station, from coast station to ship and from ship to ship should, as a general rule, be made on the digital selective calling frequency 156.525 MHz.

ADD

E3. Watch

ADD 4421E

Information concerning automatic digital selective-calling watchkeeping on the frequency 156.525 MHz by coast stations shall be given in the List of Coast Stations (see also No. N 3038).

ADD 4421F

Ship stations equipped with apparatus for digital selective calling to work in the authorized bands between 156 MHz and 174 MHz should, while at sea, maintain an automatic digital selective-calling watch on the frequency 156.525 MHz (see also No. N 3041),

ADD Section IIIB. Use of Frequencies for Wide-Band Telegraphy,
Facsimile, Special Transmission Systems and
Oceanographic Data Transmissions

ADD 4323A A. Wide-Band Telegraphy, Facsimile and Special Trans-
mission Systems

ADD 4323B A1. Bands Between 1605 kHz and 4000 kHz

ADD 4323C 63A. In Region 2, the frequencies in the band 2068.5-2078.5
kHz are assigned to ship stations using wide-band telegraphy,
facsimile and special transmission systems. The provisions of
No. 4323I are applicable.

ADD 4323D A2. Bands Between 4000 kHz and 27500 kHz

ADD 4323E 63B. In all bands, the working frequencies for ship stations
equipped to use wide-band telegraphy, facsimile and special
transmission systems are spaced 4 kHz apart. The frequencies
assignable are shown in [Table A of Appendix 31A].

ADD 4323F 63C. (1) Each administration shall assign to each ship
station under its jurisdiction and employing wide-band tele-
graphy, facsimile and special transmission systems one or
more series of the working frequencies reserved for this
purpose and shown in [Table A of Appendix 31A]. The total number
of series assigned to each ship station shall be determined
by traffic requirements.

ADD 4323G (2) When ship stations employing wide-band telegraphy,
facsimile and special transmission systems are assigned less
than the total number of working frequencies in a band, the
administration concerned shall assign working frequencies to
such ships in accordance with an orderly system of rotation
that will ensure approximately the same number of assignments
on any one working frequency.

ADD 4323H (3) However, within the limits of the bands given in
[Table A of Appendix 31A], administrations may, to meet the
needs of specific systems, assign frequencies in a different
manner from that shown in [Table A of Appendix 31A]. Neverthe-
less administrations shall take into account, as far as
possible, the provisions of [Table A of Appendix 31A] concerning
channelling and 4 kHz spacing.

ADD 4323I 63D. Ship stations equipped for wide-band telegraphy,
facsimile and special transmission systems may, in the freq-
uency bands reserved for such use, employ any class of
emission provided that such emissions can be contained within
the wide-band channels indicated in [Table A of Appendix 31A].
However, A1A Morse telegraphy and telephony are excluded
except for circuit alignment purposes.

ADD 4323J 63E. Coast radiotelegraph stations employing multichannel
telegraph emissions and operating in the maritime mobile
exclusive bands between 4000 kHz and 27500 kHz shall at no
time use a mean power in excess of 2.5 kW per 500 Hz band-
width.

ADD 4323K

B. Oceanographic Data Transmission Systems

ADD 4323L

63F. In all bands, the frequencies assignable for oceanographic data transmissions are spaced 0.3 kHz apart. The frequencies assignable are shown in Table A of Appendix 31A.

ADD 4323M

63G. The frequency bands for oceanographic data transmission systems (see Table A of Appendix 31A) may also be used by buoy stations for oceanographic data transmission and by stations interrogating these buoys.

ADD 4323N

63H. Each administration may assign to each station under its jurisdiction of a type specified in Nos. 4196E and 4323M one or more of the assignable frequencies designated in Table A of Appendix 31A.

Section IV. Use of Frequencies for Radiotelephony

A. General

ADD 4326A

However, coast stations in an automatic service in the VHF or UHF band may emit marking signals. The emission power of the signals shall however be limited to the minimum value necessary for effective operation of the signalling. Such emissions shall not cause harmful interference to maritime mobile service in other countries.

MOD 4328

67. Single-sideband apparatus in radiotelephone stations of the maritime mobile service operating in the bands between 1605 kHz and 4000 kHz allocated to this service and in the bands allocated exclusively to this service between 4000 kHz and 27500-~~23000~~-kHz shall satisfy the technical and operational conditions specified in Appendix 17/and Resolution 307/.

§ 68. When linked compressor and expander systems are used they shall conform to the characteristics specified in Appendix 40, paragraph a).

§ 69. Single-sideband radio equipment used in conjunction with linked compressor and expander systems shall conform to the characteristics specified in Appendix 17 and should also conform to Appendix 40, paragraph b).

B. Bands Between 1 605 kHz and 4 000 kHz

B1. Mode of Operation of Stations

§ 70. (1) Except in the cases specified in Nos. 2973, 4127 and 4342, the classes of emission to be used in the bands between 1 605 kHz and 4 000 kHz shall be:

4333

a) **A3E; or**

4334

b) H3E, R3E and J3E.

70A. (1A) ~~However, unless~~ Unless otherwise specified in the present Regulations (see Nos. 2973, 3004, 4127, 4342, 4343 and 4354) the class of emission to be used in the bands between 1605 kHz and 4000 kHz shall be J3E.

- class A3E emissions shall not be used by coast stations; *and*

- after 1 January 1982, class H3E emissions for coast stations and class A3E and H3E emissions for ship stations shall no longer be authorized.

NOC 4338-4342

NOC

B2. Call and Reply

MOD 4343 71. (1) The frequency 2 182 kHz¹ is ~~the~~ an international distress frequency for radiotelephony (see No. 2973 for details of use for distress, urgency, safety and emergency position-indicating radiobeacon (EPIRB) purposes). The class of emission to be used for radiotelephony on the frequency 2 182 kHz shall be A3E J3E or H3E (see No. 4127), except for such apparatus as is referred to in No. 4130.

MOD 4343.1

¹Where administrations provide at their coast stations a watch on 2 182 kHz for receiving class ~~A3E~~ J3E emissions as well as class A3E and H3E emissions, ship stations ~~beyond the A3E or H3E communication range of such coast stations~~ may call them for safety purposes using class ~~R3E H3E~~ or J3E emissions. ~~This procedure shall only be used when calling by the use of class A3E and H3E emissions has not been successful (see also Resolution No. A).~~

NOC 4344 - 4347

MOD 4348 72. To facilitate the ~~reception use of distress calls the~~ frequency 2 182 kHz for distress traffic, all transmissions on 2 182 kHz shall be kept to a minimum (see also Resolution No. A).

SUP 4349

§ 73. Ship stations open to public correspondence should, as far as possible during their hours of service, keep watch on 2 182 kHz.

NOC 4350-4351

NOC

B3. Traffic

NOC 4352-4356

NOC

B4. Additional Provisions Applying to Region 1

NOC 4357

§ 76. The peak envelope power of ship radiotelephone stations operating in the authorized bands between 1 605 kHz and 2 850 kHz shall not exceed 400 W.

NOC 4358

§ 77. (1) All stations on ships making international voyages should be able to use:

MOD 4359

a) the following ship-to-shore working frequencies ~~frequency~~, if required by their service:

MOD 4360

- carrier frequency ~~2846~~ 2045 kHz (assigned frequency ~~2847-4~~ 2046.4 kHz) and carrier frequency ~~2849~~ kHz (assigned frequency ~~2850-4~~ kHz) for class ~~R3E~~ and E emissions;

SUP

4361
Mob-83

SUP

MOD 4362

b) the following intership frequencies ~~frequency~~, if required by their service:

MOD 4363 - carrier frequency ~~2053~~ 2048 kHz (assigned frequency ~~2054.4~~ 2049.4 kHz) and ~~carrier frequency 2056 kHz~~ ~~(assigned frequency 2057.4 kHz)~~ for class R3E and J3E emissions.

SUP 4364 SUP
Mob-83

MOD 4365 ~~These frequencies~~ This frequency may be used as an additional ship-to-shore ~~frequencies~~ frequency.

MOD 4366 (2) ~~These frequencies~~ This frequency shall not be used for working between stations of the same nationality.

MOD 4367 § 78. (1) Ships frequently exchanging correspondence with a coast station of a nationality other than their own may use the same frequencies as ships of the nationality of the coast station:

- where mutually agreed by the administrations concerned; or
- where the facility is open to ships of all nationalities by virtue of a note against each of the frequencies concerned in the List of Coast Stations.

NOC 4368

[ADD 4368A The following ship-to-shore frequencies:

- carrier frequency 2 051 kHz (assigned frequency 2 052.4 kHz),
- carrier frequency 2 054 kHz (assigned frequency 2 055.4 kHz), and
- carrier frequency 2 057 kHz (assigned frequency 2 058.4 kHz),

may be assigned to coast stations as receiving frequencies under the procedure in [Article 12].]

[ADD 4368B 78A. The channelling arrangements for radiotelephony in the bands 1635-1800 kHz and 2045-2141.5 kHz in Region 1 are shown in [Table C of Appendix A].]

NOC B5. Additional Provisions Applying to Regions 2 and 3

NOC 4369

MOD 4370 C. Bands Between 4 000 kHz and ~~23 000~~ 27 500 kHz

NOC C1. Mode of Operation of Stations

MOD 4371 § 80. (1) The class of emission to be used for radiotelephony in the bands between 4 000 kHz and ~~23 000~~ 27 500 kHz shall be J3E.

SUP 4371.1 SUP
Mob-83

NOC 4372

MOD 4373 (3) Coast radiotelephone stations employing class J3E emissions in the bands between 4000 kHz and 27500-~~23000~~-kHz shall use the minimum power necessary to cover their service area and shall at no time use a peak envelope power in excess of 10 kW per channel.

MOD 4374 (4) Ship radiotelephone stations employing class J3E emissions in the bands between 4000 kHz and 27500-~~23000~~-kHz shall at no time use a peak envelope power in excess of 1.5 kW per channel.

SUP 4373.1 and 4374.1 SUP
Mob-83

NOC C2. Call and Reply

MOD 4375 81. (1) Ship stations may use the following carrier frequencies for calling in radiotelephony:

[4125	kHz ^{1,2,3}
6215-5	kHz ^{2,3}
8257	kHz ³⁻
12392	kHz ³
16522	kHz ³
18795	kHz
<u>22062</u>	kHz
<u>25085</u>]	kHz

NOC 4375.1

MOD 4375.2 2 The carrier frequencies [4125 kHz and 6215-~~6215.5~~] kHz are also authorized for common use by coast and ship stations for single-sideband radiotelephony on a simplex basis for call and reply purposes, provided the peak envelope power of such stations does not exceed 1 kW. The use of these frequencies for working purposes is not permitted (see also Nos. 2982 and 4375.1)

MOD 4375.3 ³ The carrier frequencies [4125 kHz, 6215-6215.5 kHz, 8257 kHz, 12392 kHz and 16522] kHz are also authorized for common use by coast and ship stations for single-sideband radiotelephony on a simplex basis for distress and safety traffic.

MOD 4376 (2) Coast stations may use the following carrier frequencies for calling in radiotelephony¹:

[4419-4	<u>4417</u>	<u>kHz</u> ²
<u>6521-9</u>	<u>6522</u>	<u>kHz</u> ²
8788-9	<u>8779</u>	kHz
<u>13162-8</u>	<u>13164</u>	kHz
<u>17294-9</u>	<u>17293</u>	kHz
19773		kHz
22658	<u>22765</u>	kHz
<u>26172</u>]		<u>kHz</u>

NOC 4376.1

MOD 4376.2 ² The carrier frequencies [4411 4419-4 kHz and 6510 6521-9] kHz are also authorized for common use by coast and ship stations for single-sideband radiotelephony on a simplex basis, provided the peak envelope power of such stations does not exceed 1 kW. The use of [6510 6521-9] kHz for this purpose should be limited to daytime use (see also No. 4375.1)

SUP 4377 § 82. Ship and coast stations using digital selective calling in accordance with No. 4681 may use the frequencies specified in Nos. 4683 and 4684 respectively.

NOC 4378

MOD 4379 84. (1) Before transmitting on the carrier frequencies [4125 kHz, 6215 6215.5 kHz, ~~8257 kHz~~, 12392 kHz or 16522] kHz a station shall listen on the frequency for a reasonable period to make sure that no distress traffic is being sent (see No. 4915).

NOC 4380

NOC C3. Traffic

NOC 4381-4383

MOD 4384 (4) The technical characteristics of transmitters used for radiotelephony in the bands between 4 000 kHz and ~~23 000 kHz~~ 27 500 kHz are specified in Appendix 17.

NOC 4385 D. Bands Between 156 MHz and 174 MHz

NOC D1. Call and Reply

MOD 4386 The frequency 156.8 MHz is the international distress, - safety and calling frequency for distress traffic and for calling by radiotelephony when using frequencies in the authorized bands between 156 MHz and 174 MHz (see No. Nos. 2994 and N 2994 for details of use). The class of emission to be used for radiotelephony on the frequency 156.8 MHz shall be G3E (see appendix 19).

NOC 4387-4389

MOD 4390 (3) The frequency 156.8 MHz may be used by ship stations and coast stations for selective calling as defined in Appendix 39.

NOC 4391-4392

MOD 4393 (6) All emissions in the band 156.7625 - 156.8375 MHz capable of causing harmful interference to the authorized transmissions of stations of the maritime mobile service on 156.8 MHz are forbidden. ~~The frequency 156.825 MHz may, however, be used for the purposes described in No. 2995C subject to not causing harmful interference to authorized transmissions on 156.8 MHz (see also note k) of Appendix 18).~~

SUP 4393.1 SUP
Mob-83

MOD 4394 To facilitate the reception of distress calls and distress traffic all transmissions on 156.8 MHz shall be kept to a minimum and shall not exceed one minute.

NOC 4395-4396

NOC D2. Watch

NOC 4397-4403

NOC D3. Traffic

NOC 4404

MOD 4405 (2) The method services ~~(see Resolution 308).~~

NOC 4406-4408

MOD 4409 (2) In the band necessary ~~(see Resolution 308).~~

NOC 4410 (3) The normal sequence in which channels should be put into use in the band 156 - 174 MHz is indicated by the figures in the relevant columns of Appendix 18.

SUP 4411
Mob-83

SUP

NOC 4412

MOD 4413

(6) Channels are Appendix 13 (see-Resolution
388).

NOC 4414

MOD 4415

(2) The use such services (see-Resolution-388).

NOC 4416
Mob-83

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/64-E
8 October 1987
Original: English

WORKING GROUP 4-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 4-A

Attached is a new draft of the Recommendation [COM4/C], based on the texts contained in proposals CEPT-3/10/11, I/97/4 and the proposals given orally at the nineteenth meeting of Working Group 4-A.

J. KARJALAINEN
Chairman of Working Group 4-A

Annex: 1

ANNEX

RECOMMENDATION [COM4/C]

**Relating to the Possibility of Reducing the Band
4 200 - 4 400 MHz used by Radio Altimeters
in the Aeronautical Radionavigation Service**

The World Administrative Radio Conference for the Mobile
Services, Geneva, 1987

considering

- a) that there is a demand for additional frequency allocations for the mobile service, particularly the land mobile service;
- b) that all systems utilizing the radio-frequency spectrum should be efficient in their use of this scarce resource;
- c) that the allocation to the aeronautical radionavigation service of the band 4 200 - 4 400 MHz appeared in the Radio Regulations (Atlantic City, 1947) and has not been changed since then, although it could have been changed taking into account the achieved technological progress;
- d) that this Conference decided not to change the frequency allocations in that band;
- e) that it may be possible to operate radio altimeters in this band with sufficient accuracy with a necessary bandwidth less than 200 MHz;
- f) that the frequency tolerance of such devices might be improved;
- g) that studies carried out by ICAO on this question seem to indicate that the operation of the radio altimeters equipment may necessitate the whole band;

recommends

- 1. that the next competent world administrative conference considers, if appropriate, a reduction of the band 4 200 - 4 400 MHz allocated to the aeronautical radionavigation service;
- 2. that any reduction should be based on a detailed technical evaluation of the systems in question;
- 3. that the conference mentioned in recommends 1 above consider reallocating to the land mobile service any portion of the band currently available for the aeronautical radionavigation service which is identified as a result of technical considerations;

invites the CCIR

to study the necessary bandwidth and frequency tolerance requirements for systems operating in the aeronautical radionavigation service in the frequency band 4 200 - 4 400 MHz.

requests the Secretary-General

to refer this Recommendation to ICAO inviting their consideration of the possibility of reducing the band 4 200 - 4 400 MHz for the aeronautical radionavigation service and to make appropriate Recommendations to assist administrations in this matter.

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION

WARC FOR THE MOBILE SERVICES

GENEVA, September-October 1987

Document DL/65 (Rev.1) -E

9 October 1987

Original : English

COMMITTEE 6

NOTE BY THE CHAIRMAN OF COMMITTEE 6

The chart attached shows the levels of equality between the certificate qualifications in Document 376.

I.R. HUTCHINGS
Chairman of Committee 6

Diagrammatic representation of certificate equalities

	O P E R A T O R				T E C H N I C A L			
	Knowledge of operation	Operating Skill	Regulations	Language	Principles Radio	Theory GMDSS	Operation, Preventive Maintenance	Repair Faults
(1) First Radioelectronic Operator	e)	f)	g)	h)	a) Knowledge *	b) Knowledge *	c) *	d) *
(2) Second Radioelectronic Operator	e)	f)	g)	h)	a) General	b) General	c)	d) ** Modules
(3) General Operator	a)	b)	c) Detailed	d)				
(4) Restricted Operator	a) Practical knowledge VHF	b)	c) Knowledge	d) Elementary + exemption				
(5) First Technician					a) Knowledge *	b) Knowledge *	c) *	d) *
(6) Second Technician					a) [general] [elementary]	b) [general] [elementary]	c)	d) ** Modules

* a, b, c, d identical between certificates

** d identical between certificates

— — between boxes indicate equality

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION

WARC FOR THE MOBILE SERVICES

GENEVA, September-October 1987

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8 October 1987

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Chairman of Committee 6

Diagrammatic representation of certificate equalities

	O P E R A T O R				T E C H N I C A L			
	Knowledge of operation	Operating Skill	Regulations	Language	Principles Radio	Theory GMDSS	Operation, Preventive Maintenance	Repair Faults
(1) First Radioelectronic Operator	e)	f)	g)	h)	a) Knowledge *	b) Knowledge *	c) *	d) *
(2) Second Radioelectronic Operator	e)	f)	g)	h)	a) General	b) General	c)	d) ** Modules
(3) General Operator	a)	b)	c) Detailed	d)				
(4) Restricted Operator	a) Practical knowledge VHF	b)	c) Knowledge	d) Element-ary + exemption				
(5) First Technician					a) Knowledge *	b) Knowledge *	c) *	d) *
(6) Second Technician					a) [general] [elementary]	b) [general] [element-ary]	c)	d) ** Modules

* a, b, c, d identical between certificates

** d identical between certificates

— — between boxes indicate equality

WORKING GROUP 4-C

The following revised text is submitted to Working Group 4-C for consideration.

Appendix 16 (page 14 of Document DT/68)

1. 6. MOD a) Maritime radiotelephone stations using single-sideband emissions shall operate only on the carrier frequencies shown in Sections A and B in conformity with the technical characteristics specified in Appendix 17. The upper sideband mode shall always be employed.
- ADD b) Ship stations, when using frequencies for single-sideband radiotelephony from the bands 4 000 - 4 063 kHz and 8 100 - 8 195 kHz should operate on the carrier frequencies indicated in Sections C-1 and C-2 respectively.
- MOD c) Stations employing the single-sideband mode shall use only class J3E emissions.
2. The title of Section C-1 should be amended as follows:
MOD Table of Recommended Single-Sideband Transmitting Frequencies (in kHz) for Ship Stations in the Band 4 000 - 4 063 kHz Shared with the Fixed Service
3. The title of Section C-2 should be amended as follows:
MOD Table of Recommended Single-Sideband Transmitting Frequencies (in kHz) for Ship and Coast Stations in the Band 8 100 - 8 195 kHz Shared with the Fixed Service

A.R. VISSER
Chairman of Working Group 4-C

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

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WORKING GROUP 4 AD HOC 3

Working Group 4 ad hoc 3 at its second meeting agreed to consider a possible approach to the allocation table in the band 1.5 to 1.6 GHz as outlined in the attached Annexes 1 and 2. Possible elements for a draft Resolution are indicated in Annex 3.

J.F. BROERE
Chairman of Working Group 4 ad hoc 3

Annexes: 3

ANNEX 1

MHz

Allocation to Services		
Region 1	Region 2	Region 3
1 545 - 1 555	AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth) 722 727 729 730 <u>729[B]</u>	
1 555 - 1 559	LAND MOBILE-SATELLITE (space-to-Earth) 722 727 729 730 <u>730A</u>	

MOD 729 1 545 - 1 555

1 646.5 - 1 656.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) 722 727 730 735 <u>729[B]</u>	
1 656.5 - 1 660.0	LAND MOBILE-SATELLITE (Earth-to-space) 722 727 730 <u>730A</u>	
1 660.0 - 1 660.5	RADIO ASTRONOMY LAND MOBILE-SATELLITE (Earth-to-space) 722 735 736 <u>730[A]</u>	

(MOD) 735 (1 646.5 - 1 656.0)

ADD 729[B] In the bands [] administrations may, as an exception to RR 3633, authorize public correspondence by aircraft earth stations on the condition that communications related to safety and regularity of flights have priority over public correspondence.

ADD 730A In the bands [], administrations may also authorize aircraft earth stations and ship earth stations to communicate with space stations in the land mobile-satellite service.

ANNEX 2

Option 1

MHz
1 530 — 1 535

Allocation to Services		
Region 1	Region 2	Region 3
1 530 — 1 535 SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile <u>Land Mobile-Satellite</u> (space-to-Earth) 726A 722 726	1 530 — 1 535 SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 <u>Land Mobile-Satellite</u> (space-to-Earth) 726A 722 726	

MHz
1 535 — 1 559

1 535 — 1 544 MARITIME MOBILE-SATELLITE (space-to-Earth) <u>Land Mobile-Satellite (space-to-Earth) 726A</u> 722 727	
-------------------------------------------------------------------------------------------------------------------------------------	--

ADD 726A

The use of the band 1 530 - 1 544 and
1 626.5 - 1 645.5 MHz by the land mobile-satellite
service is limited to non-speech low bit-rate data
transmissions.

Option 2

MHz
1 530 — ~~1 535~~ 1 533

Allocation to Services		
Region 1	Region 2	Region 3
1 530 — 1 535 <u>1 533</u> SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile <u>LAND MOBILE-SATELLITE</u> (space-to-Earth) 722 726	1 530 — 1 535 <u>1 533</u> SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 <u>LAND MOBILE-SATELLITE (space-to-Earth)</u> 722 726	

MHz
1 533 ~~1 530~~ — 1 535

1 530 — 1 535 <u>1 533</u> SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile <u>Land Mobile-Satellite</u> (space-to-Earth) 726A 722 726	1 530 — 1 535 <u>1 533</u> SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 <u>Land Mobile-Satellite</u> (space-to-Earth) 726A 722 726
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MHz
1 535 - ~~1 559~~ 1 544

Allocation to Services		
Region 1	Region 2	Region 3
1 535 - 1 544	MARITIME MOBILE-SATELLITE (space-to-Earth)	
	<u>Land Mobile-Satellite (space-to-Earth)</u> 726A	
	722 727	

MHz
1 626.5 - ~~1 660.5~~ 1 631.5

1 626.5 - 1 645.5 <u>1 631.5</u>	MARITIME MOBILE-SATELLITE (Earth-to-space)	
	<u>Land Mobile-Satellite (Earth-to-space)</u> 726A	
	722 727 730	

1 626.5 - 1 645.5 <u>1 631.5</u>	MARITIME MOBILE-SATELLITE (Earth-to-space)	
	<u>LAND MOBILE-SATELLITE (Earth-to-space)</u> 726A	
	722 727 730	

1 626.5 <u>1 634.5</u> - 1 645.5	MARITIME MOBILE-SATELLITE (Earth-to-Space)	
	<u>Land Mobile-Satellite (Earth-to-space)</u> 726A	
	722 727 730	

ANNEX 3

DRAFT RESOLUTION [COM4/14]

**Relating to the Extension of the Frequency Bands Allocated
to the Mobile-Satellite and Mobile Services**

The World Administrative Radio Conference for the Mobile
Services, Geneva, 1987

considering

- a) that the demand for frequency allocations for the various mobile-satellite services has increased immensely during the last few years;
- b) that the allocations for the mobile-satellite services at 1.5 GHz are the only allocations generally available for those services below 10 GHz and may not meet the requirements by the year 2000;
- c) that this Conference has made provisions for additional services and operations in the existing mobile-satellite bands;
- d) that from a system development point of view it would be preferable for any additional spectrum for the mobile-satellite services to be adjacent to the present allocations at 1.5 - 1.6 GHz;
- e) that the demand for additional frequency allocations for the mobile services is expected to increase considerably within the foreseeable future;
- f) that the most suitable frequencies for the operation of mobile and mobile-satellite services are below about 3 GHz;
- g) that sufficient time must be made available to develop new systems and, where necessary, to reallocate existing services;
- h) that only a limited number of frequency bands is allocated to the mobile-satellite service;
- i) that the CCIR is studying the possible need for maritime, aeronautical and land mobile-satellite systems to use common frequency bands of the mobile-satellite service;
- j) that there is a need for an efficient use of the bands allocated to the mobile-satellite service;

resolves

1. that mobile-satellite systems operating in the bands [] should use spot beam techniques;
2. that land mobile systems operating in the bands [] should be limited to providing service within national borders except with the agreement of other administrations;
3. that administrations should consider submitting proposals to WARC-ORB(88) relating to improved procedures for the coordination of mobile-satellite systems;
4. that the Plenipotentiary Conference, 1989 should take appropriate steps for the convening of a world administrative radio conference, not later than 1992, to revise certain parts of the frequency allocation table in Article 8 of the Radio Regulations in the range 1 - 3 GHz with a view to providing the necessary spectrum for the mobile-satellite services (taking into account "considering d)" above) as well as for the mobile services;

resolves further

1. that the CCIR should continue to study as a matter of urgency terminal characteristics which are common to the extent practicable in order to provide compatibility between the land, maritime, and aeronautical mobile-satellite services;
 2. that administrations should encourage the development and manufacture of compatible mobile-satellite user equipment.
-

MOB-87

INTERNATIONAL TELECOMMUNICATION UNION
WARC FOR THE MOBILE SERVICES
GENEVA, September-October 1987

Document DL/68-E
9 October 1987
Original: French

WORKING GROUP 4-A

NOTE BY THE CHAIRMAN OF WORKING GROUP 4-A

To assist Working Group 4-A, Recommendations Nos. 1 (MM-R1), 2 (MM-R1) and 6 (MM-R1) are annexed hereto.

J. KARJALAINEN
Chairman of Working Group 4-A

Annex: 1

ANNEX

RECOMMENDATION No. 1

**Replacement of the World-Wide
Maritime Mobile Working Frequency 425 kHz
for Ship Stations**

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 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 this Conference established a frequency assignment Plan for aeronautical radiobeacon stations 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 this would not be practicable if the frequency 425 kHz were allowed to continue on a world-wide basis as a ship working frequency for radiotelegraphy in accordance with the 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 458 kHz would be a suitable replacement for the frequency 425 kHz in order to avoid problems with the implementation of the Plan for the aeronautical radiobeacon stations;
- h) that harmful interference in the reception of the aeronautical radiobeacon stations may have serious implications for the safety of life;
- i) that the revision of No. 4237 of the Radio Regulations was not on the agenda of this Conference,

recommends

that the Conference for the Mobile Services scheduled for 1987 should be authorized to review and revise No. 4237 of the Radio Regulations with a view to replacing the frequency 425 kHz by the frequency 458 kHz as a world- wide ship station working frequency in all the Regions, from the date of entry into force of the Plan for aeronautical radiobeacons in the band 415 - 435 kHz, i.e. 1st April, 1992,

invites the Administrative Council

to ensure that the Conference for the Mobile Services scheduled for 1987 will be competent to review and revise No. 4237 of the Radio Regulations,

instructs the Secretary-General

to bring this Recommendation to the attention of all administrations.

RECOMMENDATION No. 2

**Modification of the Provisions of the Radio Regulations
Concerning the Use of Frequencies 2 047.4 kHz, 2 050.4 kHz,
2 054.4 kHz and 2 057.4 kHz by the Maritime Mobile Service**

The Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985),

considering

a) that, under the terms of Nos. 4358 to 4366 of the Radio Regulations, in Region 1 stations on ships making international voyages should be able to use, if required by their service for international communications:

- 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;
- 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;

that, under No. 4365 of the Radio Regulations, the two intership frequencies may be used as additional ship-to-shore frequencies;

b) that the four frequencies above are in the band 2 045 - 2 141.5 kHz mentioned in paragraph c) of Appendix 2 to Resolution No. 704 (Mob-83) for ship radiotelephone stations but are not in conformity with the table of recommended assignable frequencies shown in the aforementioned appendix to Resolution No. 704;

c) that, consequently, only 27 frequencies of the table referred to in considering b) above could be used by ship stations for radiotelephony;

d) that it would be desirable to have additional ship frequencies available in that band to alleviate sharing problems;

e) that additional ship frequencies could be found by reducing the present number of frequencies for international communication by ships making international voyages;

f) that by aligning the frequencies mentioned in considering a) with those of the table mentioned in considering b) one additional ship frequency would become available;

g) that this Conference is not empowered to revise Nos. 4358 to 4366 of the Radio Regulations,

recommends

1. that the Conference for the Mobile Services planned for 1987 should revise Nos. 4358 to 4366 of the Radio Regulations:

- in order to align the frequencies mentioned in these provisions with those of the table shown in Appendix 2 of Resolution No. 704;
- in order to study the possibility of reducing the number of ship frequencies for international communication;

2. that the same conference should take appropriate action with regard to the use of the additional ship frequencies following the revision of Nos. 4358 to 4366 of the Radio Regulations,

invites the Administrative Council

to take appropriate steps to include the revision of Nos. 4358 to 4366 of the Radio Regulations in the agenda of the World Administrative Conference for the Mobile Services in 1987,

instructs the Secretary-General

1. to bring this Recommendation to the attention of all administrations;
2. to communicate this Recommendation to the International Maritime Organization (IMO).

RECOMMENDATION No. 6

**Frequency Pairs in the Bands 435 - 526.5 kHz and
1 606.5 - 2 160 kHz to be Used for Digital Selective Calling
for National and International Purposes**

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 for the Mobile Services, (Geneva, 1983) could not prepare frequency assignment plans for the bands 435 - 526.5 kHz and 1 606.5 - 2 160 kHz and resolved in Resolution No. 704 (Mob-83) that a Regional Administrative Radio Conference for Region 1 be convened to prepare frequency assignment plans;
- b) that this Conference designated frequency pairs in the MF band to be used for digital selective calling for national and international purposes in the band 435 - 526.5 kHz and for national purposes only in the band 1 606.5 - 2 160 kHz (Resolution No. 5);
- c) that the use of frequency pairs for digital selective calling for international use is also of interest for Regions 2 and 3,

recognizing

- a) that this Conference could not designate a frequency pair for digital selective calling for international use in the band 1 606.5 - 2 160 kHz;
- b) that this Conference could designate frequency pairs for digital selective calling in the band 435 - 526.5 kHz with a separation of only 3 kHz between coast station and ship station frequencies,

recommends

that the World Administrative Radio Conference for the Mobile Services, scheduled for 1987, should consider

1. designating for international use in Regions 2 and 3, the frequency pairs for digital selective calling in the band 435 - 526.5 kHz designated by this Conference for international use in Region 1;
2. designating a frequency pair for digital selective calling in the band 1 606.5 - 2 160 kHz for world-wide international use;
3. making provision in the Radio Regulations for frequency pairs to be made available on a world-wide basis for digital selective calling for national purposes,

invites the Administrative Council

to include in the agenda of the WARC for the Mobile Services, scheduled for 1987, provisions to ensure that the Conference will be competent to review parts of Article 62 of the Radio Regulations so as to cover paragraphs 1 to 3 of "recommends" above,

invites the CCIR

1. to study the technical problems that may arise from the 3 kHz duplex separation in the digital selective calling channels in the band 435 - 526.5 kHz;
 2. to review the appropriate CCIR Recommendations.
-

WORKING GROUP 4-C

The attached revised pages 9, 12, 56 and 57 of Document DT/68 are submitted to Working Group 4-C for consideration.

A.R. VISSER
Chairman of Working Group 4-C

		Frequencies (paired) assignable to coast stations for NBP and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK		Frequencies assignable to coast stations for digital selective calling		Frequencies assignable to coast station for wide- band and A1A or A1B Morse telegraphy, facsimile special and data transmission systems and direct- printing telegraphy systems		Frequencies assignable to to coast stations for telephony, duplex operation	
Band MHz	Limit kHz	d)	Limit kHz		Limit kHz		Limit kHz	a)	Limit kHz
4	4209.25	4209.5 4219 18 c. 0.5 kHz	4219.25	4219.5 4220.5 3 c. 0.5 kHz	4221		4351	4352.4 4436.4 29 c. 3 kHz	4438
6	6313.75	6314 6330.5 33 c. 0.5 kHz	6330.75	6331 6332 3 c. 0.5 kHz	6332.5		6501	6502.4 6523.4 8 c. 3 kHz	6525
8	8416.25	8416.5 8436 39 c. 0.5 kHz	8436.25	8436.5 8437.5 3 c. 0.5 kHz	8438		8707	8708.4 8813.4 36 c. 3 kHz	8815
12	12578.75	12579 12656.5 155 c. 0.5 kHz	12656.75	12657 12658 3 c. 0.5 kHz	12658.5		13077	13078.4 13198.4 41 c. 3 kHz	13200
16	16806.25	16806.5 16902.5 192 c. 0.5 kHz	16902.75	16903 16904 3 c. 0.5 kHz	16904.5		17242	17243.4 17408.4 56 c. 3 kHz	17410
18/19	19680.25	19680.5 19703 45 c. 0.5 kHz	19703.25	19703.5 19704.5 3 c. 0.5 kHz	19705		19755	19756.4 19798.4 15 c. 3 kHz	19800
22	22375.75	22376 22443.5 135 c. 0.5 kHz	22443.75	22444.5 22445.5 3 c. 0.5 kHz	22445.5		22696	22697.4 22853.4 53 c. 3 kHz	22855
25/26	26100.25	26100.5 26190.5 40 c. 0.5 kHz	26190.75	26121 26122 3 c. 0.5 kHz	26122.5		26145	26146.4 26173.4 10 c. 3 kHz	26175

c. = voice / channel / cereal

AP31 (Rev.)

MOB-87/DT/68 (Rev.1) - E

MOB-87/DL/69-E

ANNEX 3

List of frequencies for use in the GMDSS, for the
 transmission of Maritime Safety Information (MSI)
 and for NAVTEX type transmissions

1. GMDSS frequencies

Radiotelephony		DSC		NBDP	
Present (kHz) (carrier frequencies)	New (kHz) (carrier frequencies)	Present (kHz)	New (kHz)	Present (kHz)	New (kHz)
4 125	4 125	4 188	4 207.5	4 177.5	4 177.5
6 215.5	6 215	6 282	6 312	6 268	6 268
8 257	8 291	8 375	8 414.5	8 357.5	8 376.5
12 392	12 290	12 563	12 577	12 520	12 520
16 522	16 420	16 750	16 804.5	16 695	16 695

2. Frequencies for MSI (kHz)

4 210	16 806.5
6 314	19 680.5
8 616.5	22 376.5
12 579	26 100.5

3. Frequency for NAVTEX type transmissions (kHz)

4 209.5

ANNEX 9

Consequential amendments to the Radio Regulations

ARTICLE 8

- MOD 500A The frequencies 2 187.5 kHz, 4 207 kHz, 6 312 kHz, 8 414.5 kHz, 12 577 kHz and 16 804.5 kHz are international distress frequencies for digital selective calling. The condition for the use of these frequencies are prescribed in Article N 38.
- MOD 500B The frequencies 2 174.5 kHz, 4 177.5 kHz, 6 268 kHz, 8 356.5 kHz, 12 520 kHz and 16 695 kHz are international distress frequencies for narrow-band direct-printing telegraphy. The conditions for the use of these frequencies are prescribed in Article N 38.
- ADD 520A The frequency 4 204.5 kHz is [an] [international] frequency for NAVTEX type transmissions (see Resolution COM5/4, Appendix 31(Rev.)).
- ADD 520B The frequencies 4 210 kHz, 6 314 kHz, 8 616.5 kHz, 12 579.5 kHz, 16 806.5 kHz, 19 680.5 kHz, 22 376.5 kHz, 26 100.5 kHz are the [international] frequencies for the transmission of Maritime Safety Information (MSI) (see Resolution COM5/5, Appendix 31(Rev.)).
- The new footnote 520B has to be included in the bands
4 063 - 4 438 kHz, 6 200 - 6 525 kHz, 8 195 - 8 815 kHz,
12 230 - 13 200 kHz, 16 360 - 17 410 kHz, 19 680 - 19 800 kHz,
22 000 - 22 855 kHz and 26 100 - 26 175 kHz.
- MOD 529A The conditions for the use of the carrier frequency 8 291 kHz, 12 290 kHz and 16 420 kHz are prescribed in Articles 38, N 38 and 60.
- SUP [Footnotes 532 and 544]

- MOD **Sub-Section IIB. Procedure to Be Followed for Coast Radiotelephone Stations Operating in the Bands Allocated Exclusively to the Maritime Mobile Service Between 4 000 kHz and ~~23 000~~ kHz**
27 500
- MOD **1315** § 24. (1) *Examination of Notices Concerning Frequency Assignments to Coast Radiotelephone Stations in the Bands Allocated Exclusively to the Maritime Mobile Service Between 4 000 kHz and ~~23 000~~ kHz for Coast Radiotelephone Stations (see No. 1239).*
27 500
- MOD **1326** § 25. (1) *Examination of Notices Concerning Frequencies Used for Reception by Coast Radiotelephone Stations in the Bands Allocated Exclusively to the Maritime Mobile Service Between 4 000 kHz and ~~23 000~~ kHz for Ship Radiotelephone Stations (see Nos. 1219 and 1239).*
27 500
- MOD **1388** § 40. (1) *Frequency Bands:*
- | | |
|------------------------------------|------------------------------|
| 9 - 2 850 kHz | |
| 3 155 - 3 400 kHz | |
| 3 500 - 3 900 kHz | <i>in Region 1</i> |
| 3 500 - 4 000 kHz | <i>in Region 2</i> |
| 3 500 - 3 950 kHz | <i>in Region 3</i> |
| 4 219.4 - 4 349.4 kHz | <u>4 221 - 4 351 kHz</u> |
| 6 325.4 - 6 493.9 kHz | <u>6 332.5 - 6 501 kHz</u> |
| 8 435.4 - 8 704.4 kHz | <u>8 438 - 8 707 kHz</u> |
| 12 652.3 - 13 070.8 kHz | <u>12 658.5 - 13 077 kHz</u> |
| 16 859.4 - 17 196.9 kHz | <u>16 904.5 - 17 242 kHz</u> |
| | <u>19 705 - 15 755 kHz</u> |
| | <u>22 445.5 - 22 696 kHz</u> |
| 22 310.5 - 22 561 kHz | <u>26 122 - 26 145 kHz</u> |
- MOD **1391** § 41. (1) *Frequency Bands Allocated Exclusively to the Maritime Mobile Service Between 4 000 kHz and ~~23 000~~ kHz for Coast Radiotelephone Stations.*
27 500
- MOD **1395** § 42. (1) *Frequency Bands Allocated Exclusively to the Maritime Mobile Service Between 4 000 kHz and ~~23 000~~ kHz for Ship Radiotelephone Stations.*
27 500
- MOD **1399** § 43. (1) *Frequency Bands Allocated Exclusively to the Maritime Mobile Service Between 4 000 kHz and ~~25 110~~ kHz for Radiotelegraph Ship Stations (see No. 1220).*
27 500

GROUPE DE TRAVAIL 4 AD HOC 6
WORKING GROUP 4 AD HOC 6
GRUPO DE TRABAJO AD HOC 6

NOTE DU PRESIDENT DU GROUPE DE TRAVAIL 4 AD HOC 6

Le document ci-joint est un état récapitulatif des propositions relatives à l'article 50 qui a pour objet d'aider le GT 4 ad hoc 6 dans ses travaux.

NOTE BY THE CHAIRMAN OF WORKING GROUP 4 AD HOC 6

In order to assist Working Group 4 ad hoc 6, attached is a consolidated document concerning proposals on Article 50.

NOTA DEL PRESIDENTE DEL GRUPO DE TRABAJO 4 AD HOC 6

Para facilitar la labor del Grupo de Trabajo 4 ad hoc 6 se adjunta un texto refundido sobre las propuestas referentes al artículo 50.

K. BJÖRNSJÖ

Le Président du Groupe de travail 4 ad hoc 6

Chairman of Working Group 4 ad hoc 6

El Presidente del Grupo de Trabajo 4 ad hoc 6

Annexe: 1Annex: 1Anexo: 1

ANNEXE - ANNEX - ANEXO

ARTICLE 50

CEPT-9/16/29
MOD titre

Dispositions spéciales relatives à l'emploi des fréquences
dans le service mobile aéronautique
et dans le service mobile aéronautique par satellite

USA/24/489
CAN/25/321
AUS/40/384
B/54/184
J/60/454
PRG/61/106
PHL/74/70
CTI/86/45
CUB/98/183
ARG/125/5

ARTICLE 50

Special Rules Relating to the Use of Frequencies
in the Aeronautical Mobile Service and in the
Aeronautical Mobile-Satellite Service

Disposiciones especiales relativas al empleo
de frecuencias en el servicio móvil aeronáutico
y el servicio móvil aeronáutico por satélite

USA/24/490
MOD 3630

CAN/25/322
AUS/40/388
B/54/185
PHL/74/71
ARG/125/6

Les fréquences de toutes les bandes attribuées au service
mobile aéronautique (R) ou au service mobile aéronautique par
satellite (R) sont réservées aux communications relatives à la
sécurité et à la régularité des vols entre tous les aéronefs et les
stations aéronautiques et terriennes aéronautiques principalement
chargées d'assurer les vols le long des routes nationales ou
internationales de l'aviation civile.

MOD 3630 Frequencies in any band allocated to the
aeronautical mobile (R) service or the aeronautical
mobile-satellite (R) service are reserved for
communications related to safety and regularity of flight
between any aircraft and those aeronautical stations and
aeronautical earth stations primarily concerned with
flight along national or international civil air routes.

MOD 3630 Las frecuencias de todas las bandas atribuidas al servicio
móvil aeronáutico (R) o al servicio móvil aeronáutico por
satélite (R) se reservan para las comunicaciones relativas a la
seguridad y regularidad de los vuelos entre las aeronaves y las
estaciones aeronáuticas y terrenas aeronáuticas principalmente
encargadas de los vuelos en las rutas nacionales o internacionales de
la aviación civil.

J/60/455

MOD 3630

Frequencies in any band allocated to the aeronautical mobile (R) service or the aeronautical mobile-satellite (R) service are ~~reserved~~ used with priority for communications related to safety and regularity of flight between any aircraft and those aeronautical stations and aeronautical earth stations primarily concerned with flight along national or international civil air routes.

MOD 3630

Les fréquences de toutes les bandes attribuées au service mobile aéronautique (R) ou au service mobile aéronautique par satellite (R) sont ~~réservées aux~~ utilisées en priorité pour les communications relatives à la sécurité et à la régularité des vols entre tous les aéronefs et les stations aéronautiques et stations terriennes aéronautiques principalement chargées d'assurer les vols le long des routes nationales ou internationales de l'aviation civile.

MOD 3630

Las frecuencias de todas las bandas atribuidas al servicio móvil aeronáutico (R) o al servicio móvil aeronáutico por satélite (R) se ~~reservan~~ utilizan con prioridad para las comunicaciones relativas a la seguridad y regularidad de los vuelos entre las aeronaves y las estaciones aeronáuticas y las estaciones terrenas aeronáuticas principalmente encargadas de los vuelos en las rutas nacionales o internacionales de la aviación civil.

PRG/61/107

MOD 3630

Les fréquences de toutes les bandes attribuées au service mobile aéronautique (R) et au service mobile aéronautique par satellite (R) sont réservées aux communications entre les aéronefs et les stations aéronautiques ou entre les aéronefs et les stations terriennes aéronautiques principalement chargées de veiller à la sécurité et à la régularité des vols le long des routes nationales ou internationales de l'aviation civile.

MOD 3630

Frequencies in any band allocated to the aeronautical mobile (R) service or to the aeronautical mobile-satellite (R) service are reserved for communications ~~related to safety and regularity of flight~~ between any aircraft and those aeronautical stations or aeronautical earth stations primarily concerned with the safety and regularity of flight along national or international civil air routes.

MOD 3630

Las frecuencias de todas las bandas atribuidas al servicio móvil aeronáutico (R) y al servicio móvil aeronáutico por satélite (R), se reservan para las comunicaciones ~~relativas a la seguridad y regularidad de los vuelos~~ entre las aeronaves y las estaciones aeronáuticas o entre las aeronaves y las estaciones terrenas aeronáuticas principalmente encargadas de velar por la seguridad y la regularidad de los vuelos en las rutas nacionales o internacionales de la aviación civil.

CEPT-9/16/30

MOD 3630

§ 1. Les fréquences de toutes les bandes attribuées au service mobile aéronautique (R) et au service mobile aéronautique par satellite (R) sont réservées aux communications relatives à la sécurité et à la régularité des vols entre tous les aéronefs et les stations aéronautiques et terriennes aéronautiques principalement chargées d'assurer les vols le long des routes nationales ou internationales de l'aviation civile, à l'exception des cas prévus au numéro 3633 ci-dessous.

MOD 3630

§ 1. Frequencies in any band allocated to the aeronautical mobile (R) service and the aeronautical mobile-satellite (R) service are reserved for communications related to safety and regularity of flight between any aircraft and those aeronautical stations and aeronautical earth stations primarily concerned with flight along national or international civil air routes except as provided for in No. 3633 below.

MOD 3630

§ 1. Las frecuencias de todas las bandas atribuidas al servicio móvil aeronáutico (R) y al servicio móvil aeronáutico por satélite (R) se reservan para las comunicaciones relativas a la seguridad y regularidad de los vuelos entre las aeronaves y las estaciones aeronáuticas o estaciones terrenas aeronáuticas principalmente encargadas de los vuelos en las rutas nacionales o internacionales de la aviación civil, excepto lo dispuesto en el número 3633.

CUB/98/184

MOD 3630

§ 1. Les fréquences de toutes les bandes attribuées au service mobile aéronautique (R) ou au service mobile aéronautique par satellite (R) sont réservées aux communications relatives à la sécurité et à la régularité des vols entre tous les aéronefs et les stations aéronautiques et terriennes aéronautiques principalement chargées d'assurer les vols le long des routes nationales ou internationales de l'aviation civile. Il faut tenir compte de la disposition N° 3633.

MOD 3630

§ 1. Frequencies in any band allocated to the aeronautical mobile (R) service or the aeronautical mobile-satellite (R) service are reserved for communications related to safety and regularity of flight between any aircraft stations and aircraft earth stations, and those aeronautical stations and aeronautical earth stations primarily concerned with flight along national or international civil air routes. No 3633 shall be taken into account.

MOD

3630

1. Las frecuencias de todas las bandas atribuidas al servicio móvil aeronáutico (R) y al servicio móvil aeronáutico por satélite (R) se reservan para las comunicaciones relativas a la seguridad y regularidad de los vuelos entre las estaciones de aeronave y las estaciones terrenas aeronáuticas, las estaciones aeronáuticas y las estaciones terrenas aeronáuticas principalmente encargadas de los vuelos en las rutas nacionales o internacionales de la aviación civil. Se debe tener en cuenta lo dispuesto en el número 3633.

CTI/86/46

SUP 3630

CEPT-9/16/31
MOD 3631

J/60/456

§ 2. Les fréquences de toutes les bandes attribuées au service mobile aéronautique (OR) et au service mobile aéronautique par satellite (OR) sont réservées aux communications entre tous les aéronefs et les stations aéronautiques et aéronautiques terriennes autres que celles principalement chargées du service mobile aéronautique le long des routes nationales ou internationales de l'aviation civile.

MOD 3631

§ 2. Frequencies in any band allocated to the aeronautical mobile (OR) service and the aeronautical mobile-satellite (OR) service are reserved for communications between any aircraft and aeronautical stations and aeronautical earth stations other than those primarily concerned with flight along national or international civil air routes.

MOD 3631

§ 2. Las frecuencias de las bandas atribuidas al servicio móvil aeronáutico (OR) y al servicio móvil aeronáutico por satélite (OR) se reservan para las comunicaciones entre las aeronaves en general y las estaciones aeronáuticas o estaciones terrenas aeronáuticas cuya misión principal no sea el servicio móvil aeronáutico en las rutas nacionales o internacionales de la aviación civil.

PRG/61/108

MOD 3631

Les fréquences de toutes les bandes attribuées au service mobile aéronautique (OR) et au service mobile aéronautique (OR) sont réservées aux communications entre tous les aéronefs et les stations aéronautiques ou entre tous les aéronefs et les stations terriennes aéronautiques autres que celles principalement chargées du service mobile aéronautique le long des routes nationales ou internationales de l'aviation civile.

MOD 3631

Frequencies in any band allocated to the aeronautical mobile (OR) service or to the aeronautical mobile-satellite (OR) service are reserved for communication between any aircraft and aeronautical stations or aeronautical earth stations other than those primarily concerned with flight along national or international civil air routes.

MOD 3631

Las frecuencias de las bandas atribuidas al servicio móvil aeronáutico (OR) y al servicio móvil aeronáutico por satélite (OR), se reservan para las comunicaciones entre las aeronaves en general y las estaciones aeronáuticas o entre las aeronaves en general y las estaciones terrenas aeronáuticas cuya misión principal no sea el servicio móvil aeronáutico en las rutas nacionales o internacionales de la aviación civil.

CUB/98/185

MOD 3631

§ 2. Les fréquences de toutes les bandes attribuées au service mobile aéronautique (OR) ou au service mobile aéronautique par satellite (OR) sont réservées aux communications entre toutes les stations d'aéronef et les stations aéronautiques ou entre les stations terriennes d'aéronef et les stations terriennes aéronautiques principalement chargées du service mobile aéronautique (R) lorsque ces communications se rapportent à la sécurité de l'aéronef et à l'efficacité du vol le long des routes nationales ou internationales de l'aviation civile.

MOD 3631

§ 2. Frequencies in any band allocated to the aeronautical mobile (OR) service and the aeronautical mobile-satellite (OR) service are reserved for communications between ~~any~~ aircraft stations and aeronautical stations or between aircraft earth stations and aeronautical earth stations other than those primarily concerned with ~~flight~~ the aeronautical mobile (R) service which normally deal with aircraft safety and flight efficiency along national or international civil air routes.

MOD 3631 2. Las frecuencias de las bandas atribuidas al servicio móvil aeronáutico (OR) y al servicio móvil aeronáutico -- por satélite (OR) se reservan para las comunicaciones entre las estaciones de aeronave en general y, las estaciones aeronáuticas o entre las estaciones terrenas de aeronaves y las estaciones terrenas aeronáuticas cuya misión principal no sea el servicio móvil aeronáutico (R) y comúnmente están relacionadas con la seguridad de la aeronave y la eficacia del vuelo en las rutas nacionales o internacionales de la aviación civil.

ARG/125/7

NOC 3631

CAN/

NOC 3631

CTI/86/46
SUP

3631

CEPT-9/16/32
MOD 3632

USA/24/491

CAN/25/323

AUS/40/389

B/57/186

J/60/457

MCD 3632

PRG/61/109

CTI/86/47

CUB/86/186

ARG/125/8

§ 3. Les fréquences des bandes attribuées au service mobile aéronautique entre 2850 kHz et 22000 kHz (voir l'article 8) sont assignées conformément aux dispositions des appendices 26, ~~27~~ et ~~27 Aer 2~~ 27 Aer 2 et aux autres dispositions pertinentes du présent Règlement.

Note : Supprimer la "note" du secrétariat général de l'UIT au bas de la page RR 50-1 du Règlement des radiocommunications.

§ 3. Frequencies in the bands allocated to the aeronautical mobile service between 2 850 kHz and 22 000 kHz (see Article 8) shall be assigned in conformity with the provisions of Appendices 26, ~~27~~, and ~~27 Aer 2~~ 27 Aer 2 other relevant provisions of the regulations.

Note: Delete the "note" by the ITU General Secretariat at the bottom of the page RR50-1 of the Radio Regulations.

MOD 3632

§ 3. Las frecuencias de las bandas atribuidas al servicio móvil aeronáutico entre 2 850 kHz y 22 000 kHz (véase el artículo 8), se asignarán de conformidad con lo dispuesto en los apéndices 26, ~~27~~ y ~~27 Aer 2~~ 27 Aer 2 y con las demás disposiciones pertinentes del presente Reglamento.

Nota - Suprímase la "Nota de la Secretaría General" que figura al pie de la página RR50-1 del Reglamento de Radiocomunicaciones.

J/60/459

ADD 3632A

§ 3A. Les fréquences de la bande 117,975 - 137 MHz attribuées au service mobile aéronautique (R) sont assignées conformément aux dispositions de l'appendice 27A et aux autres dispositions du présent Règlement.

ADD 3632A

§3A. Frequencies in the band 117.975 - 137 MHz allocated to the aeronautical mobile (R) service shall be assigned in conformity with the provisions of Appendix 27A and the other provisions of these Regulations.

ADD 3632A

§ 3A. Las frecuencias de la banda 117,975 - 137 MHz atribuidas al servicio móvil aeronáutico (R) se asignarán de conformidad con lo dispuesto en el apéndice 27A y con las demás disposiciones pertinentes del presente Reglamento.

CAN/25/324

MOD 3633

Les administrations ne doivent pas autoriser la correspondance publique dans les bandes de fréquences attribuées en exclusivité au service mobile aéronautique ou au service mobile aéronautique par satellite (R).

MOD

3633

Administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service or to the aeronautical mobile-satellite (R) service.

MOD 3633

Las administraciones no autorizarán la correspondencia pública en las bandas de frecuencias destinadas con carácter exclusivo al servicio móvil aeronáutico o al servicio móvil aeronáutico por satélite (R).

CUB/98/187

MOD 3633

§ 4. Les administrations ne doivent pas autoriser la correspondance publique dans les bandes de fréquences attribuées en exclusivité au service mobile aéronautique et au service mobile aéronautique par satellite.

MOD 3633

§ 4. Administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service and the aeronautical mobile-satellite service.

MOD 3633 4. Las administraciones no autorizarán la correspondencia pública en las bandas de frecuencias destinadas con carácter exclusivo al servicio móvil aeronáutico y al servicio móvil aeronáutico por satélite.

CHL/94/46

MOD 3633

MOB-83

§ 4. Sauf dans les cas prévus au numéro 729A, les administrations ne doivent pas autoriser la correspondance publique dans les bandes de fréquences attribuées en exclusivité au service mobile aéronautique et au service mobile aéronautique par satellite.

MOD 3633

Mob-83

§ 4. Except as provided in 729A, administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service or the aeronautical mobile-satellite service.

MOD 3633

MOB-83

4. Salvo lo previsto en 729A, las administraciones no autorizarán la correspondencia pública en las bandas de frecuencias destinadas con carácter exclusivo al servicio móvil aeronáutico y al servicio móvil aeronáutico por satélite.

CEPT-9/16/33
MOD 3633

§ 4. A l'exception des bandes 1545-1559 MHz et 1646,5-1660,5 MHz, les administrations ne doivent pas autoriser la correspondance publique dans les bandes de fréquences attribuées en exclusivité au service mobile aéronautique et au service mobile aéronautique par satellite. Quand les bandes mentionnées ci-dessus sont utilisées pour la correspondance publique avec les aéronefs, la correspondance publique doit accorder une priorité complète aux communications des catégories 1 à 6 de l'article 51.

MOD 3633

Except in the bands 1545-1559 MHz and 1646.5-1660.5 MHz administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service and the aeronautical mobile-satellite service. When the bands mentioned above are used for public correspondence with aircraft the public correspondence shall accord complete priority of communication to categories 1 to 6 of Article 51.

MOD 3633

Excepto en las bandas 1 545 - 1 559 MHz y 1 646,5 - 1 660,5 MHz, las administraciones no autorizarán la correspondencia pública en las bandas de frecuencias destinadas con carácter exclusivo al servicio móvil aeronáutico y al servicio móvil aeronáutico por satélite. Cuando las bandas mencionadas se utilicen para la correspondencia pública con aeronaves, la correspondencia pública dará prioridad absoluta de comunicación a las categorías 1 a 6 del artículo 51.

J/60/460

MOD 3633

§ 4. Les administrations ne doivent pas autoriser la correspondance publique dans les bandes de fréquences suivantes attribuées en exclusivité au service mobile aéronautique.

MOD 3633

§4. Administrations shall not permit public correspondence in the following frequency bands allocated exclusively to the aeronautical mobile service.

MOD 3633

§ 4. Las administraciones no autorizarán la correspondencia pública en las siguientes bandas de frecuencias destinadas con carácter exclusivo al servicio móvil aeronáutico:

2 850 - 3 155 kHz
4 650 - 4 750 kHz
5 450 - 5 480 kHz (Région 2)
5 480 - 5 730 kHz
6 525 - 6 765 kHz
8 815 - 9 040 kHz
10 005 - 10 100 kHz
11 175 - 11 400 kHz
13 200 - 13 360 kHz
15 010 - 15 100 kHz
17 900 - 18 030 kHz
21 924 - 22 000 kHz
23 200 - 23 350 kHz
117.975 - 136 MHz

NOC 3633

USA/24/492, KEN/58/1, PRG/61/110, PHL/44/42, SEN/103/6, ARG/125/9, ZAI/191/6, AUS/40/

SUP 3633

CTI/86/48

CUB/98/188

MOD 3634

§ 5. Afin de réduire les brouillages, les stations d'aéronef doivent, dans la mesure des moyens dont elles disposent, s'efforcer de choisir pour l'appel la bande dont les fréquences présentent les caractéristiques de propagation les plus favorables pour établir une communication satisfaisante, à condition de respecter les dispositions et réglementations du présent Règlement des radiocommunications applicables au service mobile aéronautique. En l'absence de données plus précises, toute station d'aéronef doit, avant d'émettre un appel, écouter les signaux de la station avec laquelle elle désire entrer en communication. La force et l'intelligibilité des signaux reçus donnent des renseignements utiles sur les conditions de propagation et indiquent dans quelle bande il est préférable de faire l'appel.

MOD 3634

§ 5. In order to reduce interference, aircraft stations shall, within the means at their disposal, endeavour to select for calling the band with the most favourable propagational characteristics for effecting reliable communication subject to compliance with the rules and regulations governing the aeronautical mobile service contained in the Radio Regulations. In the absence of more precise data, an aircraft station shall, before making a call, listen for the signals of the station with which it desires to communicate. The strength and intelligibility of such signals are useful as a guide to propagational conditions and indicate which is the preferable band for calling.

MOD 3634

5. Con el fin de reducir las interferencias, las estaciones de aeronave se esforzarán por elegir para la llamada, en la medida que los medios de que dispongan se lo permitan, la banda cuyas frecuencias presenten las características de propagación más favorables para lograr una comunicación satisfactoria, siempre que cumpla con las disposiciones y regulaciones para el servicio móvil aeronáutico contenidas en el presente Reglamento de Radiocomunicaciones. Cuando carezcan de datos precisos, las estaciones de aeronave, antes de transmitir una llamada, deberán escuchar las señales de la estación con la que deseen ponerse en comunicación. La intensidad y la inteligibilidad de las señales recibidas proporcionan datos útiles sobre las condiciones de propagación e indican qué bandas es preferible para efectuar la llamada.

NOC 3634 CEPT-9/16, CAN/15, PHL/44/42, ARG/115/10

SUP 3634 USA/24/493, PRG/61/111

CEPT-9/16/34

MOD 3635

J/60/461

§ 6. Les gouvernements peuvent, par voie d'accords, décider des fréquences à utiliser pour l'appel et pour la réponse dans le service mobile aéronautique et dans le service mobile aéronautique par satellite.

MOD 3635

§ 6. Governments may, by agreement, decide the frequencies to be used for call and reply in the aeronautical mobile service and the aeronautical mobile-satellite service.

MOD 3635

§ 6. Los gobiernos podrán fijar, por medio de acuerdos, frecuencias para la llamada y la respuesta en el servicio móvil aeronáutico y el servicio móvil aeronáutico por satélite.

SUP 3635 USA/24/494, PRG/61/112, PHL/44/43

COMMISSION 6
COMMITTEE 6
COMISION 6

1	2
4 209.25	- 4 219.25 khz
6 313.75	- 6 330.75 khz
8 416.25	- 8 436.25 khz
12 578.75	- 12 656.75 khz
16 806.25	- 16 902.75 khz
19 680.25	- 19 703.25 khz
22 375.75	- 22 443.75 khz
26 100.25	- 26 120.75 khz

2	3
4 219.25	- 4 221 khz
6 330.75	- 6 332.5 khz
8 436.25	- 8 438 khz
12 656.75	- 12 658.5 khz
16 902.75	- 16 904.5 khz
19 703.25	- 19 705 khz
22 443.75	- 22 445.5 khz
26 120.75	- 26 122.5 khz

3	4
4 221	- 4 351 khz
6 332.5	- 6 501 khz
8 438	- 8 707 khz
12 658.5	- 13 077 khz
16 904.5	- 17 242 khz
19 705	- 19 755 khz
22 445.5	- 22 696 khz
26 122.5	- 25 145 khz

12 368
22 374.75
22 376.25
4 202.75

R. SWANSON
Président de la Commission 6
Chairman of Committee 6
Presidente de la Comisión 6

WORKING GROUP 4 AD HOC 6

NOTE BY THE CHAIRMAN OF WORKING GROUP 4 AD HOC 6

FOOTNOTE PROVISION FOR TERRESTRIAL APC

726B Additional Allocation: The bands [1 593 - 1 594] MHz and [1 625.5 - 1 626.5] MHz are also allocated to the aeronautical mobile service in Region 1 on a primary basis and in Region(s) 2 [and 3] on a secondary basis. The use of these bands in the aeronautical mobile service is limited to public correspondence with aircraft (see Resolution COM4/[]). The use of the band [1 593 - 1 594] MHz is limited to transmissions from aeronautical stations and the use of [1 625.5 - 1 626.5] MHz is limited to transmissions from aircraft stations.

726C Different category of service: The bands listed in No. 726B are allocated, subject to agreement obtained in accordance with the procedures set forth in Article 14 to the aeronautical mobile service on a primary basis in [Greenland, the French Overseas Departments in Regions 2 and 3] Bermuda, British Virgin Islands, Cayman Islands, Hong Kong and Montserrat, ... (see Resolution COM4/[]).

730A In Region 1 stations of the aeronautical mobile service using the bands [1 593 - 1 594] MHz and [1 625.5 - 1 626.5 MHz] shall not cause harmful interference to stations of the fixed service operating in those countries listed in No. 730.

731A In Region 1 stations of the aeronautical mobile service using the bands [1 593 - 1 594 MHz and 1 625.5 - 1 626.5 MHz] shall not claim protection from or cause harmful interference to stations of the aeronautical radionavigation and radionavigation satellite services.

K. BJORNSJO

Chairman of Working Group 4 ad hoc 6

GROUPE DE TRAVAIL 4 AD HOC 6
WORKING GROUP 4 AD HOC 6
GRUPO DE TRABAJO AD HOC 6

NOTE DU PRÉSIDENT DU GROUPE DE TRAVAIL 4 AD HOC 6

Le document ci-joint est une révision proposée de l'article 50, basée sur le Document DL/71 et qui a pour objet d'aider le GT 4 ad hoc 6 dans ses travaux.

NOTE BY THE CHAIRMAN OF WORKING GROUP 4 AD HOC 6

In order to assist Working Group 4 ad hoc 6, attached is a proposal on revised Article 50 based on Document DL/71.

NOTA DEL PRESIDENTE DEL GRUPO DE TRABAJO 4 AD HOC 6

Para facilitar la labor del Grupo de Trabajo 4 ad hoc 6 se adjunta una propuesta de texto revisado del artículo 50, basada en el Documento DL/71.

K. BJÖRNSJÖ

Le Président du Groupe de travail 4 ad hoc 6
Chairman of Working Group 4 ad hoc 6
Presidente del Grupo de Trabajo 4 ad hoc 6Annexe: 1
Annex: 1
Anexo: 1

ANNEXE - ANNEX - ANEXO

ARTICLE 50

Dispositions spéciales relatives à l'emploi des fréquences
dans le service mobile aéronautique
et dans le service mobile aéronautique par satellite

ARTICLE 50

Special Rules Relating to the Use of Frequencies
in the Aeronautical Mobile Service and in the
Aeronautical Mobile-Satellite Service

Disposiciones especiales relativas al empleo
de frecuencias en el servicio móvil aeronáutico
y el servicio móvil aeronáutico por satélite

MOD 3630

§ 1. Les fréquences de toutes les bandes attribuées au service mobile aéronautique (R) et au service mobile aéronautique par satellite (R) sont réservées aux communications relatives à la sécurité et à la régularité des vols entre tous les aéronefs et les stations aéronautiques et terrestres aéronautiques principalement chargées d'assurer les vols le long des routes nationales ou internationales de l'aviation civile, [à l'exception des cas prévus au numéro 3633 ci-dessous.]

MOD 3630

§ 1. Frequencies in any band allocated to the aeronautical mobile (R) service and the aeronautical mobile-satellite (R) service are reserved for communications related to safety and regularity of flight between any aircraft and those aeronautical stations and aeronautical earth stations primarily concerned with flight along national or international civil air routes [except as provided for in No. 3633 below.]

MOD 3630

§ 1. Las frecuencias de todas las bandas atribuidas al servicio móvil aeronáutico (R) y al servicio móvil aeronáutico por satélite (R) se reservan para las comunicaciones relativas a la seguridad y regularidad de los vuelos entre las aeronaves y las estaciones aeronáuticas o estaciones terrenas aeronáuticas principalmente encargadas de los vuelos en las rutas nacionales o internacionales de la aviación civil, [excepto lo dispuesto en el número 3633.]

MOD 3631 § 2. Les fréquences de toutes les bandes attribuées au service mobile aéronautique (OR) et au service mobile aéronautique par satellite (OR) sont réservées aux communications entre tous les aéronefs et les stations aéronautiques et aéronautiques terrestres autres que celles principalement chargées du service mobile aéronautique le long des routes nationales ou internationales de l'aviation civile.

MCD 3631 § 2. Frequencies in any band allocated to the aeronautical mobile (OR) service and the aeronautical mobile-satellite (OR) service are reserved for communications between any aircraft and aeronautical stations and aeronautical earth stations other than those primarily concerned with flight along national or international civil air routes.

MOD 3631 § 2. Las frecuencias de las bandas atribuidas al servicio móvil aeronáutico (OR) y al servicio móvil aeronáutico por satélite (OR) se reservan para las comunicaciones entre las aeronaves en general y las estaciones aeronáuticas o estaciones terrenas aeronáuticas cuya misión principal no sea el servicio móvil aeronáutico en las rutas nacionales o internacionales de la aviación civil.

MOD 3632 § 3. Les fréquences des bandes attribuées au service mobile aéronautique entre 2850 kHz et 22000 kHz (voir l'article 8) sont assignées conformément aux dispositions des appendices 26, ~~27*~~ et ~~27 Aer2*~~ 27 Aer2 et aux autres dispositions pertinentes du présent Règlement.

Note : Supprimer la "note" du secrétariat général de l'UIT au bas de la page RR 50-1 du Règlement des radiocommunications.

MCD 3632 § 3. Frequencies in the bands allocated to the aeronautical mobile service between 2 850 kHz and 22 000 kHz (see Article 8) shall be assigned in conformity with the provisions of Appendices 26, ~~27*~~, and ~~27-Aer2*~~ 27 Aer2 other relevant provisions of the regulations.

Note: Delete the "note" by the ITU General Secretariat at the bottom of the page RR50-1 of the Radio Regulations.

MOD 3632 § 3. Las frecuencias de las bandas atribuidas al servicio móvil aeronáutico entre 2 850 kHz y 22 000 kHz (véase el artículo 8), se asignarán de conformidad con lo dispuesto en los apéndices 26, ~~27*~~ y ~~27 Aer2*~~ 27 Aer2 y con las demás disposiciones pertinentes del presente Reglamento.

Nota - Suprimase la "Nota de la Secretaría General" que figura al pie de la página RR50-1 del Reglamento de Radiocomunicaciones.

MOD 3633 Las administraciones no deben autorizar la correspondencia pública en las bandas de frecuencias atribuidas en exclusividad al servicio móvil aeronáutico o al servicio móvil aeronáutico por satélite

MOD 3633 Administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service or to the aeronautical mobile-satellite service.

MOD 3633 Las administraciones no autorizarán la correspondencia pública en las bandas de frecuencias destinadas con carácter exclusivo al servicio móvil aeronáutico o al servicio móvil aeronáutico por satélite

MOD 3634 § 5. Afin de réduire les brouillages, les stations d'aéronef doivent, dans la mesure des moyens dont elles disposent, s'efforcer de choisir pour l'appel la bande dont les fréquences présentent les caractéristiques de propagation les plus favorables pour établir une communication satisfaisante, à condition de respecter les dispositions et réglementations du présent Règlement des radiocommunications applicables au service mobile aéronautique. En l'absence de données plus précises, toute station d'aéronef doit, avant d'émettre un appel, écouter les signaux de la station avec laquelle elle désire entrer en communication. La force et l'intelligibilité des signaux reçus donnent des renseignements utiles sur les conditions de propagation et indiquent dans quelle bande il est préférable de faire l'appel.

MOD 3634 § 5. In order to reduce interference, aircraft stations shall, within the means at their disposal, endeavour to select for calling the band with the most favourable propagational characteristics for effecting reliable communication subject to compliance with the rules and regulations governing the aeronautical mobile service contained in the Radio Regulations. In the absence of more precise data, an aircraft station shall, before making a call, listen for the signals of the station with which it desires to communicate. The strength and intelligibility of such signals are useful as a guide to propagational conditions and indicate which is the preferable band for calling.

MOD 3634 5. Con el fin de reducir las interferencias, las estaciones de aeronave se esforzarán por elegir para la llamada, en la medida que los medios de que dispongan se lo permitan, la banda cuyas frecuencias presenten las características de propagación más favorables para lograr una comunicación satisfactoria, siempre que cumpla con las disposiciones y regulaciones para el servicio móvil aeronáutico contenidas en el presente Reglamento de Radiocomunicaciones. Cuando carezcan de datos precisos, las estaciones de aeronave, antes de transmitir una llamada, deberán escuchar las señales de la estación con la que deseen ponerse en comunicación. La intensidad y la inteligibilidad de las señales recibidas proporcionan datos útiles sobre las condiciones de propagación e indican qué bandas es preferible para efectuar la llamada.

MOD 3635 § 6. Les gouvernements peuvent, par voie d'accords, décider des fréquences à utiliser pour l'appel et pour la réponse dans le service mobile aéronautique et dans le service mobile aéronautique par satellite.

MCD 3635 § 6. Governments may, by agreement, decide the frequencies to be used for call and reply in the aeronautical mobile service and the aeronautical mobile-satellite service.

MOD 3635 § 6. Los gobiernos podrán fijar, por medio de acuerdos, frecuencias para la llamada y la respuesta en el servicio móvil aeronáutico y el servicio móvil aeronáutico por satélite.

PLEN AD HOC 2

NOTE BY THE CHAIRMAN OF PLEN AD HOC 2

1. Annex 1 contains draft provisions for power flux-density and e.i.r.p. limits based on the conclusions of the Technical Working Group of the Plenary (see Document 277). Two alternatives are given, i.e. for inclusion into Article 8 or for inclusion into Article 28.
2. Annex 2 contains a draft provision for inclusion into Article 11.
3. Annex 3 contains a draft Resolution submitted by the United States.

E. GEORGE
Chairman of PLEN ad hoc 2

Annexes: 3

ANNEX 1

Alternative 1: Modification of Article 28

ADD 2548A (10) The equivalent isotropically radiated power (e.i.r.p.) transmitted in any direction by an earth station in the radiodetermination-satellite service in the band 1 610 - 1 626.5 MHz shall not exceed 0 dBW in any 4 kHz band.

MOD 2558 b) The limits given in No. 2557 apply in the frequency bands listed in No. 2559 which are allocated to the following space radiocommunication services:

- meteorological-satellite service (space-to-Earth)
- space research service (space-to-Earth)
- space operation service (space-to-Earth)

for transmission by space stations where these bands are shared with equal rights with the fixed or mobile service/;

- radiodetermination-satellite service (space-to-Earth).

MOD 2559 1 525 - 1 530 MHz¹ (for Regions 1 and 3)
1 530 - 1 535 MHz¹ (for Regions 1 and 3, up to 1 January 1990)
1 670 - 1 690 MHz
2 483.5 - 2 500 MHz

NOC 2561 (3) Power flux-density limits between 2 500 MHz and 2 690 MHz.

MOD 2562 a) The power flux-density at the Earth's surface produced by emissions from a space station in the broadcasting-satellite service ~~or~~, the fixed-satellite service or the radiodetermination-satellite service for all conditions and for all methods of modulation shall not exceed the following values:

-152 dB(W/m²) in any 4 kHz band for angles of arrival between 0 and 5 degrees above the horizontal plane;

-152 + 0.75(δ - 5) dB(W/m²) in any 4 kHz band for angles of arrival δ (in degrees) between 5 and 25 degrees above the horizontal plane;

-137 dB(W/m²) in any 4 kHz band for angles of arrival between 25 and 90 degrees above the horizontal plane.

These limits relate to the power flux-density which would be obtained under assumed free-space propagation conditions.

MOD 2563 b) The limits given in No. 2562 apply in the frequency band:

2 500 - 2 690 MHz

which is shared by the broadcasting-satellite service or the fixed-satellite service with the fixed or mobile service; and in the frequency band 2 500 - 2 516.5 (for Region 3) allocated to the radiodetermination-satellite service.

Alternative 2: Addition of footnotes to Article 8

ADD 753[X] In the band 2 483.5 - 2 500 MHz the power flux-density at the Earth's surface produced by emissions from a space station in the radiodetermination-satellite service shall not exceed the limits specified in RR 2557 and 2560.

ADD 754[X] In the band 2 500 - 2 516.5 MHz the power flux-density at the Earth's surface produced by emissions from a space station in the radiodetermination-satellite service shall not exceed the limits specified in RR 2562 and 2564.

ADD 734[X] In the band 1 610 - 1 626.5 MHz the equivalent isotropically radiated power (e.i.r.p.) of earth stations in the radiodetermination-satellite service transmitted in any direction shall not exceed 0 dBW in any 4 kHz band.

ANNEX 2

Modification of Article 11

NOC Section III. Coordination of Frequency Assignments to an
 Earth Station in Relation to Terrestrial Stations

NOC 1106 Requirement for Coordination

(MOD) 1107 § 16. (1) Before an administration notifies to the Board or
 brings into use any frequency assignment to an earth station²,
 whether for transmitting or receiving, in a particular band
 allocated with equal rights to space and terrestrial
 radiocommunication services in the frequency spectrum above 1 GHz,
 it shall, except in the cases described in Nos. 1108 to 1111,
 effect coordination of the assignment with each administration
 whose territory lies wholly or partly within the coordination
 area¹ of the planned earth station. The request for coordination
 concerning an earth station may specify all or some of the
 frequency assignments of the associated space station, but
 thereafter each assignment shall be dealt with individually.

NOC 1107.1

ADD 1107.2 For the application of this procedure to earth stations
 in the radiodetermination-satellite service Appendix 28,
 paragraph 7 shall be applied using uniform coordination distances
 of [] km in the band 1 610 - 1 626.5 MHz and of [] km in the
 bands 2 483.5 - 2 500 MHz and 2 500 - 2 516.5 MHz.

ANNEX 3

DRAFT RESOLUTION [PLEN/...]

Relating to Sharing Criteria for the
Radiodetermination-Satellite Service
in the Bands 1 610 - 1 626.5 MHz,
2 483 - 2 500 MHz and 2 500 - 2 516.5 MHz

The World Administrative Radio Conference for the Mobile Services,
Geneva, 1987,

considering

- a) that this Conference allocated frequencies for the radiodetermination-satellite service in the bands 1 610 - 1 626.5 MHz and 2 483.5 - 2 500 MHz;
- b) that the technical criteria specified for this service, and in particular the provisions of RR [734F], [753F] and [1107.1], were established for the purpose of allowing immediate implementation of this service;
- c) that further studies may allow less restrictive criteria to be established for the radiodetermination-satellite service while still providing protection from harmful interference to the other services to which these bands are allocated;

resolves

- 1. that the technical criteria in considering b) above are applicable until they are reviewed by the next competent WARC;
- 2. that, in the interim, administrations apply the most current information developed in the CCIR in assessing the probability of interference between the radiodetermination-satellite service and other services;

invites the CCIR

to study, as a matter of urgency, the possibility of less restrictive conditions on the radiodetermination-satellite service than those mentioned in considering b) above;

invites the Administrative Council

to include this matter in the agenda of the next competent WARC.

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WARC FOR THE MOBILE SERVICES
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In the limited sub-region encompassing Canada, Mexico and the United States, in the bands 1 551 - 1 555 MHz and 1 652.5 - 1 656.5 MHz, the administration may, on a secondary basis, also authorize earth stations of the land mobile-satellite service to communicate with space stations in the aeronautical mobile-satellite (R) service. Such communications must cease immediately, when necessary, to permit transmission of messages with priority 1 to 6 in Article 51.