



**Documents of the Regional Administrative Conference for FM Sound Broadcasting in the VHF band  
(Region 1 and certain countries concerned in Region 3) (2nd session)  
(Geneva, 1984)**

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

- This PDF includes Document DL No. 1 - 39.
- The complete set of conference documents includes Document No. 1 - 269, DL No. 1 - 39, DT No. 1 - 62.

This electronic version (PDF) was scanned by the International Telecommunication Union (ITU) Library & Archives Service from an original paper document in the ITU Library & Archives collections.

La présente version électronique (PDF) a été numérisée par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'un document papier original des collections de ce service.

Esta versión electrónica (PDF) ha sido escaneada por el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un documento impreso original de las colecciones del Servicio de Biblioteca y Archivos de la UIT.

(ITU) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (PDF) الإلكترونية النسخة هذه والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلاً

此电子版（PDF版本）由国际电信联盟（ITU）图书馆和档案室利用存于该处的纸质文件扫描提供。

Настоящий электронный вариант (PDF) был подготовлен в библиотечно-архивной службе Международного союза электросвязи путем сканирования исходного документа в бумажной форме из библиотечно-архивной службы МСЭ.

# REGIONAL BROADCASTING CONFERENCE

(SECOND SESSION)

GENEVA, 1984

Document DL/1-E  
29 October 1984

DRAFT

AGENDA

OF THE

MEETING OF HEADS OF DELEGATIONS

Monday, 29 October 1984, at 1030 hrs

(Room II)

Document No.

- |  |      |
|--|------|
| 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/1 |
| 6. Proposals for the election of the Chairmen and Vice-Chairmen of the Committees  | -    |
| 7. Draft agenda of the first Plenary Meeting                                       | DT/2 |
| 8. Allocation of documents to Committees (draft)                                   | DT/3 |
| 9. Other business  |      |

R.E. BUTLER  
Secretary-General



INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/2-E  
29 October 1984

STEERING COMMITTEE

DRAFT

GENERAL SCHEDULE OF THE WORK OF THE CONFERENCE

1st week (29 October - 2 November)

Organization and commencement of work

Friday 2 : end of the work of Technical Working Group of the Plenary

2nd week (5 - 9 November)

Continuation of the work in Working Groups and Committees

3rd week (12 - 16 November)

Continuation of the work in Working Groups and Committees

4th week (19 - 23 November)

Friday 23 : end of the work of Working Groups of Committee 5 (Agreement and Procedures)

5th week (26 - 30 November)

Tuesday 27 : end of the work of Working Groups of Committee 4 (Planning)

Friday 30 : end of the work of Committee 4 (Planning)

6th week (3 - 7 December)

Monday 3 : end of the work of Committee 5 (Agreement and Procedures)

Tuesday 4 : distribution of the Plan

Report of Committee 2 (Credentials)

Wednesday 5 : first examination of the Plan by the Plenary Meeting

Report of Committee 3 (Budget Control)

Thursday 6 : second examination of the Plan by the Plenary Meeting (modifications only)

examination of the last texts of the Final Acts

Friday 7 : 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.

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/3-E  
29 October 1984  
Original : English

TECHNICAL WORKING GROUP  
OF THE PLENARY

Information Note by the Chairman of the Technical Working Group

1. The Annex to this Information Note contains a comparison of methods of calculation concerning compatibility between the broadcasting service in the band 87.5 to 108 MHz and the aeronautical radionavigation service in the band 108 to 118 MHz.
2. All proposals up to and including those contained in Document No. 35 have been included in this Annex.
3. The Annex was prepared in order to facilitate the preparation of the sharing criteriae between the broadcasting and the aeronautical radionavigation services.

J. RUTKOWSKI  
Chairman of the Technical Working Group

Annex : 1

ANNEX

C O M P A R I S O N

of methods of calculation concerning compatibility between the broadcasting service in the band 87.5 to 108 MHz and the aeronautical radionavigation services in the band 108 to 118 MHz.

The following documents were taken into consideration:

- REPORT: Report to the Second Session of the Conference. Regional Administrative Conference for FM Sound Broadcasting in the VHF Band (Region 1 and certain countries in Region 3), Geneva, 1982.
- CCIR: Conclusions from CCIR Joint Interim Working Party 8-10/1, May, 1984.
- DOC: Documents of the Second Session of the Regional Broadcasting Conference, Geneva, October - December 1984.

1. Type A1 interference

1.1 Protection ratio for type A1 incompatibility calculations, in dB:

frequency difference (kHz)	REPORT	CCIR	DOC 21 (future-receiver)
0	17	17	10
50	10	10	3
100	5	5	-12
150	2	2	-37
200	-1	-1	-63

1.2 Maximum (relative) level of spurious emissions:

Power of FM BC transmitter	REPORT	CCIR
P < 7.9 kW	-85 dB	25 uW
P > 7.9 kW	-85 dB	-85 dB

1.3 Multiple source of interference:

REPORT: The protection ratio figures given above take into account multiple interference entries resulting from FM broadcast emissions.

CCIR: When calculating the wanted signal to interference ratio, the effective total FM BC interference power should be taken into account. The Second Session of the Conference will need to decide on an appropriate method of calculation of the effective total FM BC interference power.

DOC 33: The power sum of nuisance fields is compared with the wanted field strength to determine if the test point is protected.

$$NF \text{ Sum} = 10 \log \left( \sum_{i=1}^n \text{antilog} (NF_i/10) \right)$$

$$NF = FSI + PR$$

NF Sum = the power sum of n nuisance fields in dB(uV/m)

NF = nuisance field in dB(uV/m)

NF<sub>i</sub> = i-th nuisance field in dB(uV/m)

FSI = interfering field strength in dB(uV/m)

PR = protection ratio in dB

2. Type A2 interference

---

2.1 Protection ratio for type A2 interference calculations:

frequency difference (kHz)	REPORT	CCIR	DOC 18	DOC 27
150	-		-63 dB	
200	-	-50 dB	-73 dB	disregarded
300	-	-68 dB	disreg.	disregarded
500	-	-72 dB	disreg.	disregarded

3. Type B1 interference

3.1 Two-signal, type B1 interference case:

Third order intermodulation products of the form  $f(\text{AERO}) = 2*f(\text{BC1}) - f(\text{BC2})$  generated in aeronautical radionavigation receiver may cause unacceptable degradation of receiver performance if:

REPORT:  $1.71*N1 + N2 + 60 > 0$

CCIR and DOC:

$$2(N1 - A*\log(df1/B)) + (N2 - A*\log(df2/B)) + C > 0 \quad (1)$$

$$\begin{aligned} \text{if } df1 < B \text{ then } df1 &= B \\ \text{if } df2 < B \text{ then } df2 &= B \end{aligned} \quad (2)$$

- f(AERO) = aeronautical radionavigation frequency
- f(BC1) = broadcasting frequency
- f(BC2) = broadcasting frequency  $f(\text{BC1}) > f(\text{BC2})$
- N1 = level of the f(BC1) broadcasting signal at the aeronautical radionavigation receiver input, in dBm
- N2 = level of the f(BC2) broadcasting signal at the aeronautical radionavigation receiver input, in dBm

Values of A, B, C, df1, df2 and indication whether condition (2) above is accepted can be found in the following table:

	A	B	C	df1 and df2	(2) condition
CCIR					
existing ILS	20	0.4	120	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC1)	yes
existing VOR (f < 112 MHz)	30	0.6	105	df1 = 108.0 - f(BC1) df2 = 108.0 - f(BC1)	yes
(f > 112 MHz)	30	0.6	60	df1 = 108.0 - f(BC1) df2 = 108.0 - f(BC1)	yes
future ILS	20	0.4	72	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC1)	yes
future VOR	20	0.4	72	df1 = 108.0 - f(BC1) df2 = 108.0 - f(BC2)	yes

		A	B	C	df1 and df2
CCIR	Annex V. ILS	20	0.4	120	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC2)
DOC 22					df1 = f(AERO) - f(BC1) df2 = f(AERO) - f(BC2)

### 3.2 Tree-signal, type B1 interference case:

Third order intermodulation products of the form:  $f(\text{AERO}) = f(\text{BC1}) + f(\text{BC2}) - f(\text{BC3})$  generated in aeronautical radionavigation receiver may cause unacceptable degradation of receiver performance if:

$$(N1 - A \cdot \log(df1/B)) + (N2 - A \cdot \log(df2/B)) + (N3 - A \cdot \log(df3/B)) + C > 0 \quad (3)$$

$$\begin{aligned} \text{if } df1 < B \text{ then } df1 &= B \\ \text{if } df2 < B \text{ then } df2 &= B \\ \text{if } df3 < B \text{ then } df3 &= B \end{aligned} \quad (4)$$

f(AERO) = aeronautical radionavigation frequency  
f(BC1) = broadcasting frequency  
f(BC2) = broadcasting frequency  
f(BC3) = broadcasting frequency  $f(\text{BC1}) > f(\text{BC2}) > f(\text{BC3})$   
N1 = level of the f(BC1) broadcasting signal at the aeronautical radionavigation receiver input, in dBm  
N2 = level of the f(BC2) broadcasting signal at the aeronautical radionavigation receiver input, in dBm  
N3 = level of the f(BC3) broadcasting signal at the aeronautical radionavigation receiver input, in dBm

Values of A, B, C, df1, df2, df3 and indication whether condition (4) above is accepted can be found in the following table:

	A	B	C	df1, df2, df3	(4) condition
REPORT	0	-	73	---	-
CCIR					
existing ILS	20	0.4	126	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC1) df3 = 108.1 - f(BC1)	yes
existing VOR (f < 112 MHz)	30	0.6	111		yes
(f > 112 MHz)	30	0.6	66		yes
future ILS	20	0.4	78	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC1) df3 = 108.1 - f(BC1)	yes
future VOR	20	0.4	78	df1 = 108.0 - f(BC1) df2 = 108.0 - f(BC1) df3 = 108.0 - f(BC1)	yes
CCIR Annex V					
ILS	20	0.4	126	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC2) df3 = 108.1 - f(BC3)	
DOC 20					
existing	20	0.5	126	df1 = f(AERO) - f(BC1) df2 = f(AERO) - f(BC2) df3 = f(AERO) - f(BC3)	
future	20	0.5	78	df1 = f(AERO) - f(BC1) df2 = f(AERO) - f(BC2) df3 = f(AERO) - f(BC3)	
DOC 22				df1 = f(AERO) - f(BC1) df2 = f(AERO) - f(BC2) df3 = f(AERO) - f(BC3)	

	A	B	C	df1, df2, df3	(4) condition
-----					
DOC 24					
first alternative					
ILS	20	0.4	126	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC2) df3 = 108.1 - f(BC3)	yes
VOR	20	0.6	111	df1 = 108.0 - f(BC1) df2 = 108.0 - f(BC2) df3 = 108.0 - f(BC3)	yes
-----					
DOC 24					
second alternative					
existing ILS	20	0.4	126	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC2) df3 = 108.1 - f(BC3)	yes
existing VOR	20	0.4	111	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC2) df3 = 108.1 - f(BC3)	yes
future ILS/VOR	20	0.4	78	df1 = 108.1 - f(BC1) df2 = 108.1 - f(BC2) df3 = 108.1 - f(BC3)	yes
-----					

3.3 Correction factors to permissible broadcast signal levels for type B1 interference relative to values at frequency coincidence, in dB:

frequency difference (kHz)	REPORT	CCIR ILS	CCIR VOR	DOC 19	DOC 25	DOC 34
0	-	0	0	0	0	0
50	-	-	0.75	2	2.5	7
100	-	12	1.5	8	10	15
150	-	-	2.25	16	20	21
200	-	19	3	26		21
250	-	-	12			
300	-	-	21			

4. Type B2 interference

Maximum permitted level of broadcasting signal:

frequency (MHz)	REPORT	CCIR existing	CCIR future
108	-20		
107.9		-20	-11
106	-5	-5	+6
102			+15
<100	-5	+10	+15

Between the frequency values given above, the maximum permitted level can be calculated using linear interpolation.

# REGIONAL BROADCASTING CONFERENCE

(SECOND SESSION)

GENEVA, 1984

Document DL/4-E

30 October 1984

PL/4

## TECHNICAL SUB-GROUP PROPAGATION (PL/A)

Response of the CCIR to Questions asked by  
Recommendations AA and BB of the first session

Conference Document 5 (10 April 1984) and its Addendum (29 June 1984) sent by the Secretary-General of the ITU at the request of the Director of the CCIR, gives the response of CCIR Study Group 5 to the Questions asked by Recommendations AA and BB of the first session.

In order to facilitate the comprehension of the text, the present document has been re-arranged into one, logically organized text with no changes to the contents but with a few minor editorial modifications.

H. BERTHOD  
Chairman PL/A

IWP 5/5  
Document 25/84  
26 October 1984

Working Group 5-A

REPLIES TO THE REQUESTS FORMULATED BY THE  
REGIONAL ADMINISTRATIVE RADIO PLANNING CONFERENCE  
(GENEVA, 1982)

IN RECOMMENDATION AA AND IN RECOMMENDATION BB

1. In relation to the first request in Recommendation AA, CCIR Interim Working Party 5/5 took note of the work carried out by Gulfvision and the Islamic Republic of Iran in the region between Shatt-al-Arab and the Gulf of Oman and by the State of Israel in the Mediterranean east of the 30°E meridian.

The conclusion drawn from these studies is given in Annex I.

2. In connection with the second request in Recommendation AA, Interim Working Party 5/5 re-examined Recommendation 370-4 and Report 239-5 together with the earlier versions and as a result proposed a new interpretation (see Annex II) of the propagation curves in Recommendation 370-4 for land paths and sea paths west of 30°E.

3. The members of IWP 5/5 came to the conclusion that certain other propagation information which arguably could be considered as provided in response to Recommendation AA may also be thought useful by the Second Session of the Conference. This additional information appears in Annex III.

4. In relation to the request in Recommendation BB Study Group 5 wishes to draw attention to the fact that at the present time, it has had no input concerning results of measurements effected in the African continent.

MEDITERRANEAN AREA  
EAST OF 30° E AND IN THE  
AREA FROM THE SHATT-AL-ARAB  
TO THE GULF OF OMAN

ANNEX I

PROPAGATION IN THE BAND 87.5 - 108 MHz IN THE AREA EAST OF 30° E

1. Description of present results

Reports have been received concerning three Band II measurement campaigns, relating to oversea, overland and mixed paths measured at one site in the Eastern Mediterranean, and at different sites in the area from the Shatt-al-Arab to the Gulf of Oman. The measured paths are listed in Table 2 of the Appendix to this Annex, and, were measured to include the maximum seasonal ducting periods in general and the maximum diurnal ducting periods in particular. The duration of the measurements, ranging from 14 months to four months, all include the months of June, July and August.

These results also suggest that there are two distinct parts of the year as far as propagation analysis is concerned. Summer is characterized by high and stable signal levels, while winter is characterized by low and stable signal levels, with two transition periods of unstable signal levels approximately March, April and October/November.

2. Provisional data for planning\*

2.1. Provisional data for planning in the Eastern Mediterranean area

The above measurement results (see also Appendix of Annex I) indicate that the following data are suitable for planning purposes at this time in the Eastern Mediterranean (that is, that part of the Mediterranean Sea east of meridian 30°E).

It is recognized that there is a need to identify the form of prediction for those transition cases in which a propagation path crosses the suggested boundary between Eastern and Western Mediterranean (meridian 30°E). It is therefore proposed that an approximation based upon the mixed path method explained in section 2.1.3.4. of the report to the Second Session of the Regional Administrative Conference for FM Sound Broadcasting in the VHF Band (Region 1 and certain countries concerned in Region 3) could be adopted but it is clear that much more evidence is required. Administrations are urged to consider this important aspect and to offer proposals for a more precise technique.

2.1.1. Oversea paths

Oversea paths are considered to be those traversing seas and other substantial bodies of water. For 1% of the time, oversea paths in this area are considered to include also a coastal strip extending in general not more than 50km inland. In order to reflect the important influence that the terrain within this coastal strip will play in determining the actual propagation it would be desirable to indicate a terrain height limit above which the oversea propagation curve would not be used. However, such terrain data may not be readily available, and for the purposes of computation it is recommended that the use of the oversea curve within the area be simply defined by the inland limit of the 50km coastal strip. In detailed bilateral discussions of specific cases this simple definition may not be appropriate. In such instances distances other than 50km and a height limitation (e.g. 100m) may be used to define the coastal strip and hence the use of the 1% curve.

---

\* For reasons of meteorology, it is possible that the following general areas of Region 1 may have similar propagation characteristics : the Red Sea, the Straits of Gibraltar and the West African coast from the Equator to the Tropic of Cancer.

For oversea paths, calculations relative to 1% of the time for the Eastern Mediterranean area should be based on free-space propagation less correction factors which have been derived from measurements up to 500 km. The field strength values are shown in Table 1. Beyond 500 km there is little evidence at present on which to base a curve for the Eastern Mediterranean. Furthermore, examination of results from propagation experiments in Italy, France and along the North African coast has yet to be completed. Therefore it is not yet possible to define the differences between Eastern and Western Mediterranean propagation. However, the effects of super-refractivity are clearly evident in measurements over the shorter ranges in the Eastern Mediterranean. Therefore for initial planning at the Second Session of the RABC it is recommended that for the longer ranges, i.e. beyond 500km, the single 1% curve to be used in the area should be that employed for the sea area between the Shatt-al-Arab and the Gulf of Oman.

For 50% time calculations for oversea paths, Figure 1 shown in Annex II of this document should be used without that modification to the coastline required for the 1% time calculations.

#### 2.1.2. Overland paths

Overland paths include all land other than the coastal strip defined for the 1% time calculations in 2.1.1. above. For interference predictions, the overland path should be appraised according to Figure 2.7 of the Report of the First Session of the Regional Administrative Conference for FM Sound Broadcasting in the VHF Band (Region 1 and certain countries concerned in Region 3). For coverage areas Figure 2.1. of that Report should be used.

#### 2.1.3. Mixed paths

Mixed paths should be appraised for both interference and coverage according to the procedure set out in section 2.1.3.4 of the Report of the First Session of the Regional Administrative Conference for FM Sound Broadcasting in the VHF Band (Region 1 and certain countries concerned in Region 3).

#### 2.2. Provisional data for planning in the area from the Shatt-al-Arab to the Gulf of Oman

The measurement results (see Appendix to Annex I) indicate that the following data are suitable for planning purposes at this time in the area from the Shatt-al-Arab to the Gulf of Oman.

##### 2.2.1. Oversea paths

Oversea paths are considered to be those traversing seas and other substantial bodies of water. For 1% of the time, oversea paths in this area are considered to include also a coastal strip extending in general not more than 50km inland. In order to reflect the important influence that the terrain within this coastal strip will play in determining the actual propagation it would be desirable to indicate a terrain height limit above which the oversea propagation curve would not be used. However, such terrain data may not be readily available and for the purposes of computation it is recommended that the use of the oversea curve within the area be simply defined by the inland limit of the 50km coastal strip. In detailed bilateral discussions of specific cases this simple definition may not be appropriate. In such instances distances other than 50km together with a height limitation (e.g. 100 m) may be used to define the coastal strip and hence the use of the 1% oversea curve. Alternatively the situation may be defined by the attenuation factor  $\gamma_d$  which has resulted from studies carried out by member states of the Gulfvision organization.

For oversea paths, propagation for 1% of the time should be based on free space values up to 400 km. Beyond this distance the curve should observe an additional linear attenuation of 6 dB per 100 km referred to the free space value at 400 km; for example, the field strength value at a distance of 550 km would be 9 dB below the free space value at 400 km. The values recommended are shown in Table 1.

For 50% time calculations for oversea paths, Figure 1 shown in Annex II of this document should be used without that modification to the coastline required for the 1% time calculations.

#### 2.2.2 Overland paths

See section 2.1.2 above.

#### 2.2.3 Mixed paths

See section 2.1.3 above.

TABLE 1

TABLE OF RELEVANT 1% TIME PROPAGATION CURVES

Curve	50	100	200	300	400	500	600	700	800	900	1000 km	
Free Space	73	67	61	58	55	53	52	50	49	48	47	)
Existing Med. (300 m)	60	50	38	30	23	18	14	10	8	5	3	) dB $\mu$ V/m
East Med.	70	60	54	51	48	46	43	37	31	25	19	)
Shatt-al-Arab to Gulf of Oman	73	67	61	58	55	49	43	37	31	25	19	)

Appendix  
(to Annex I)

Details of measurements

Details of the measurement paths are shown in Table 2.

The signal level distributions for the oversea paths during the summer season show that the differences between monthly 1% and 10% values are only the order of a few decibels. The 50% values in winter are less than the 50% summer values by about the order of 30dB. Values exceeded for 1% and 10% of the time in winter are always less than in summer and show a wider distribution. For distances up to around 500km the values for 1% of the time were about free space levels. For greater distances the measurements made between Kuwait and Abu Dhabi and between Dubai and Kuwait (around 820km), show that the level exceeded for 1% of the time was 15dB below free space. At this time, no data confirm such a decrease in the Eastern Mediterranean. In this respect it is to be noted that although for practical reasons the measurements could not be carried out on a continuous basis i.e. 24 hours per day, the measurement periods are considered to be sufficiently representative for the above information to be valid for planning purposes.

Based on the pronounced stability of the long distance oversea signals already measured in the above areas, it seems reasonable to identify provisionally the worst months as June, July and August, but the month of maximum received signal level (i.e. the worst month for ducting interference) has a year-to-year variability as well as a geographical variability.

For mixed land and sea paths there is greater seasonal and diurnal variation in signal level.

Propagation paths in coastal strips may, depending on meteorological conditions and topography, show characteristics similar to oversea paths or to overland paths at any time, and this situation is best dealt with statistically.

TABLE 2  
Measurement Paths

Transmitter	Receiver	Frequency (MHz)	Distance (km)
1. <u>Oversea paths</u>			
1.1 Eastern Mediterranean			
Adana	Tel Aviv	89.2	560
Akrotiri	Tel Aviv	92.1	330
1.2 Area from the Shatt-al-Arab to the Gulf of Oman			
Abu Dhabi	Bandar Abbas	93.5	355
Abu Dhabi	Dayyer	93.5	450
Doha	Dayyer	97.5	290
Dubai	Bandar Abbas	92	240
Dubai	Damman	92	537
Dubai	Failaka	92	834
Dubai	Bahrain	92	487
Failaka	Bahrain	98.8	414
Failaka	Abu Dhabi	98.8	918
Bahrain	Damman	96.5	49
2. <u>Overland paths</u>			
2.1 <u>Eastern Mediterranean region</u>			
Amman	Tel Aviv	99	110
Beer Sheba	Tel Aviv	103.8	88
Safad	Tel Aviv	101.1	120
3. <u>Mixed paths - Land/sea</u>			
3.1 Area from the Shatt-al-Arab to the Gulf of Oman			
Basra	Failaka	88.3	124
Bahrain	Abu Dhabi	96.5	434
Failaka	Doha	98.8	558
Bahrain	Doha	96.5	144
Dubai	Muscat	92	378
Failaka	Abu Teymour	98.8	200
Bahrain	Doha	80	137

ANNEX II

Propagation for Frequencies in the Band 87.5 - 108MHz  
Over All Land Paths, and Over Sea Paths ~~West of 30°E~~, Except  
for areas subject to extreme superrefraction

1. Land Paths

For land paths the curves in Figures 1 (50% of the time), 2a (10% of the time) and 4a (1% of the time) of Recommendation 370-4 are to be used.

2. Sea Paths

For the oversea paths:

- for the North Sea and the Western Mediterranean; 50% of the time, the curves of attached Figure 1 apply;
- for the North Sea, 10% of the time, the curves of attached Figure 2 apply;
- for the Western Mediterranean, 10% of the time, the curves of attached Figure 3 apply;
- for the North Sea, 1% of the time, and for the Western Mediterranean, 1% of the time, curves 4b and 4c respectively of Recommendation 370-4 are to be used.

3. Analysis of Measurements

Appendix 2 to this Annex examines the comparison between measurements made in this area and predictions based on Rec. 370-4.

Details of the procedure used to derive Figures 1, 2 and 3 attached are given in Appendix I of Annex II. The derivation is based on the application of the  $\Delta h$ -correction factor given in Figure 7 of Recommendation 370-4.

Appendix 1  
(to Annex II)

DERIVATION  
DEVIATION OF THE CURVES

The curves in Figures 1, 2 and 3 of Annex II have been established as follows:

- For the North Sea and Mediterranean, 50% of the time (Figure 1) the curves have been taken from Figure 1 in Recommendation 370-4 corrected for a value  $\Delta h = 10m$  at all distances obtained using Figure 7 of Recommendation 370-4, except where this correction would result in values higher than those which would be obtained in the same conditions for 10% of the time, in which case the latter values have been adopted.
- For the North Sea, 10% of the time, the curves are from Figure 2a in Recommendation 370-4, corrected for a value  $\Delta h = 10m$  at all distances obtained using Figure 7 of Recommendation 370-4, except where this correction would result in values higher than those which would be obtained in the same conditions for 1% of the time, in which case the latter values have been adopted.
- For the Mediterranean, 10% of the time (Figure 3), the curves have been obtained as follows :

for distances of less than 200km, the values from Figure 2a of Recommendation 370-4 (land and North Sea, 10% of the time,  $\Delta h = 50m$ ) have been corrected for  $\Delta h = 10m$  in accordance with Figure 7 of Recommendation 370-4, except where this correction would result in values higher than those obtained in the same conditions for the Western Mediterranean for 1% of the time, in which case the latter values have been adopted;

for distances of more than 200km, the values given by the curves in Figure 2b of Recommendation 370-4 have been maintained because the curves for those distances have been derived directly from measurements.

Appendix 2  
(to Annex II)

COMPARISON WITH MEASUREMENTS

IWP 5/5 at its meeting from 30 April to 4 May 1984 examined those contributions, primarily from RAI (Italy), IBA (UK), BBC (UK), IRT (RFA) and FCC (US), providing comprehensive measurement data relating to broadcasting services in Bands I, II and III.

The data comprised extensive mobile measurements in the coverage area of two different transmitters in the southern part of Germany and also a total of 179 overland and oversea paths in the United States, the North Sea and Mediterranean area. The path lengths varied in the range 90 - 800km, the transmitting and receiving effective heights being in the ranges 15 - 1,500 metres and 5 - 700 metres, respectively. The measurement periods varied between three months and four years duration, during normal broadcasting hours (generally 0900 - 2300 hrs, local time). A considerable majority of the measurement periods were of approximately one year's duration.

It is known that much of the measurement data formed the basis of the original CCIR curves produced for the Stockholm Conference in 1961 and subsequently incorporated in CCIR Recommendation 370. There was, however, a significant amount of new data available.

The objective in examining the measurement data was to enable a comparison to be made with predictions using :

- a) the curves in Recommendation 370; and
- b) the modifications to the Recommendation 370 curves as provisionally proposed in Document 5 of the CARR-1(2).

The above modifications are principally concerned with the production of separate overland and oversea curves for 50% and 10% of the time for the North Sea areas and 50% of the time for the Mediterranean area. To facilitate the comparison, the measurement data were normalized for an e.r.p. of 1kW and, in most cases, for effective transmitting and receiving antenna heights of 300m and 10m respectively. The analysis and subsequent comparison were confined to 50% and 10% time values, the results of which are given in Table 3.

Conclusions

The results of the initial analysis (Table 3) show a good degree of agreement between measurement data and the existing overland curves of Recommendation 370 for 50% and 10% time.

The analysis clearly shows that the previously mentioned Document 5 proposals offer a distinct improvement in prediction accuracy over Recommendation 370 curves for 50% and 10% North Sea and 50% Mediterranean areas.

There is some evidence to suggest that the corrections proposed in document 5 to the existing Figures 1 and 2a of Recommendation 370 to produce new sea curves for 50% and 10% time may tend to underestimate field strength values. However, since there is agreement that in due course a separate series of curves should be produced in the CCIR for each VHF broadcasting band, no further changes to the Document 5 proposals for modification of the propagation curves could be considered at this time. The use of the curves as described in Document 5 for the purposes of the forthcoming CARR-1(2) is confirmed.

TABLE 3

Comparison of measurements (M) with predictions (P) according to the Rec. 370-4 and the curves proposed by IWP 5/5 in Figures 1-3, (M-P).

(a) Overland paths

Data source	50% time		10% time	
	Mean ratio (dB)	Stand dev. (dB)	Mean ratio (dB)	Stand dev. (dB)
USA	+0.2	6.2	-1.5	6.8
UK-BBC	0	8.1	+1.5	8.5
UK-IBA	+6.1	2.8	+3.0	5.1
IRT*	-1.0			
IRT*	-1.8			
IRT*	+4.1			

\* Mobile measurements in the distance range 10 - 100 km.

(b) Oversea paths : North Sea and Mediterranean area : 50% time

Data source	Rec. 370 comparisons		IWP 5/5 comparisons	
	Mean ratio (dB)	Stand dev. (dB)	Mean ratio (dB)	Stand dev. (dB)
UK-IBA IRT	+9.4	1.7	+3.8	2.0
UK-BBC	-	-	+1.5	5.8
RAI	+8.7	4.0	+4.5	2.6

North Sea area : 10% time

UK-IBA IRT	+11	4.7	+6.1	4.6
UK-BBC	-	-	+4.0	5.8

Mediterranean area : 10% time

RAI	+7.7	3.8	Not applicable.	
-----	------	-----	-----------------	--

ANNEX III

Further Comments Concerning the Report of the First Session

1. Receiving antenna height correction

In section 2.1.3.3. of the report to the Second Session the receiving antenna height correction is indicated as being -9dB for a change in height from 10 to 3m, independent of distance. In section 2.3. on the other hand, the correction is stated as ranging from -9dB to -4.5dB depending on the distance. IWP 5/5 carefully studied this matter in the light of more recent information, and came to the conclusion that there is no distance dependence. Consequently, the IWP considers that the statement made in section 2.1.3.3. is correct, while that made in section 2.3. is not supported by later evidence.

As Figures 2.11 and 2.12 of the report have been produced for land mobile service for effective transmitter antenna heights from 37.5m to 600m by applying the correction factor as given in section 2.3, the IWP has constructed a revised version of each of these two Figures by applying the constant -9dB correction to Figures 2.2 and 2.3 of the above report, Figures 2.2 and 2.3 having been the basis of the original Figures 2.11 and 2.12. Copies of the revised Figures 2.11 and 2.12 are attached, and IWP 5/5 would invite the attention of the Conference to this information.\*

2. Effective transmitter heights above 1,200m

Information is given in section 2.1.3 of the above report concerning the determination of field strength for effective transmitting antenna heights above 1,200m. However, the formula provided is applicable only at distances beyond the horizon, and this restriction is not stated in the section. The omission has been identified by the Administration of the Federal Republic of Germany which in a contribution to the CARR-1(2) clarifies the validity of the formula and proposes a procedure applicable to distances within the horizon.\*\*

IWP 5/5 supports the proposal made in the above contribution from the Federal Republic of Germany.

3. Effective transmitter heights below 37.5m

In section 2.1.3 of the above report antenna height correction factors are provided for the derivation of field strength curves relating to effective transmitter antenna heights of 20m and 10m. IWP 5/5 has observed that the application of these factors gives rise to curves which are inconsistent with physical reality in the distance range 50 - 150km. The Administration of the Federal Republic of Germany has also recognized the problem and in the above mentioned contribution (section 2) has proposed an alternative method for determining the curves for use by the Conference. The IWP would support the use of this alternative method for frequencies in Band II. This would include the use of this alternative method for the land mobile service, based on Figures 2.11 and 2.12 (see also 1 above).\*

---

\* In Figures 2.11 and 2.12 it should be noted that no account has been taken of the revised curves proposed in Figures 1-3 of this document.

\*\* Doc. 14

#### 4. Terrain irregularity correction

IWP 5/5 has reconsidered the use of the  $\Delta h$  correction factor in the VHF band. The analysis of measurement results from different administrations shows that the application of this terrain irregularity correction can lead to large errors in the calculation of both service areas and interference. In section 2.1.3.2. of the report of the CARR-1(2) it is stated "no terrain irregularity correction shall be made". In section 2 of Annex A of that report, however, a detailed description of the irregularity parameter  $\Delta h$ , and of the associated correction factors (see Figures 2.14 and 2.15) is given. To avoid the errors indicated above therefore the following suggestion is made :

- the reference to the terrain irregularity correction contained in the final sentence of section 2.1.3.2. of the report of the CARR-1(2) should be deleted;
- referring to Annex A of the above mentioned report, section 2 and Figures 2.14 and 2.15 should be deleted;
- a final sentence should be added to section 2.1.3.2. of the above report, reading as follows : "For bilateral and multilateral co-ordination actual path profiles may be considered."

~~SECRET~~  
11.10.59

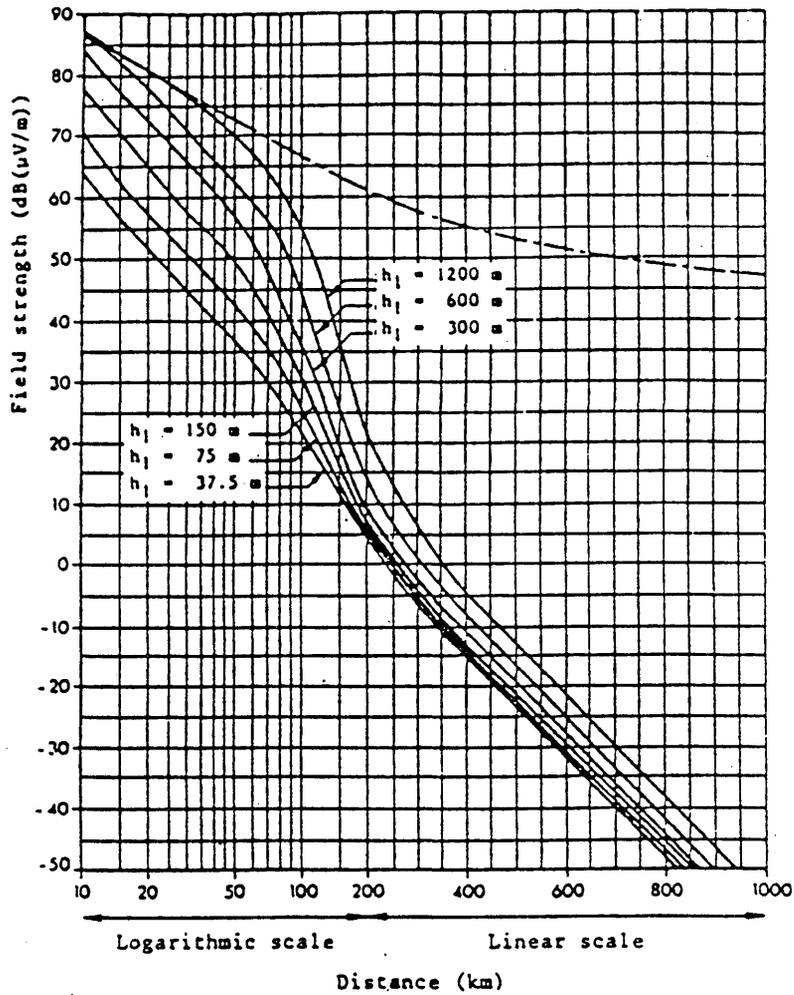
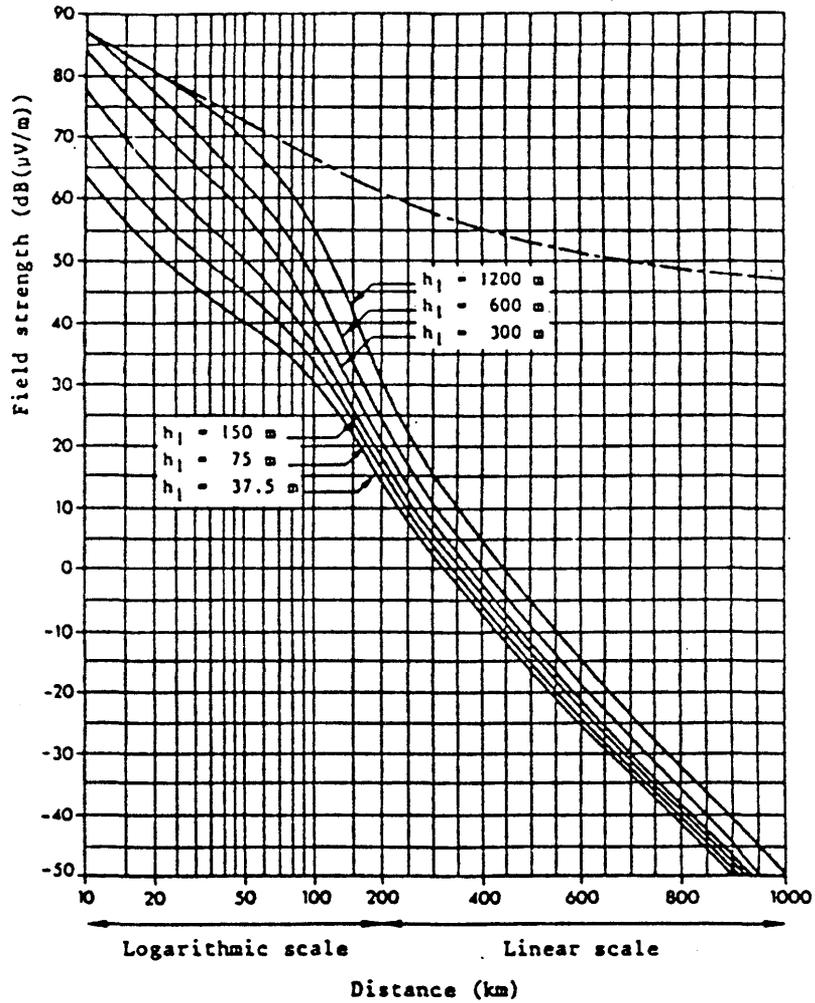


FIGURE 1

Field strength [dB (μV/m)] for 1 kW e.r.p.

Frequency: 30 to 250 MHz (Bands I, II and III); Mediterranean Sea, North Sea;  
50% of the time; 50% of the locations; h<sub>2</sub> = 10 m

----- Free space



**FIGURE 2**

Field-strength [dB (μV/m)] for 1 kW e.r.p.

Frequency: 30 to 250 MHz (Bands I, II and III); North Sea; 10% of the time;  
50% of the locations; h<sub>2</sub> = 10 m

----- Free space

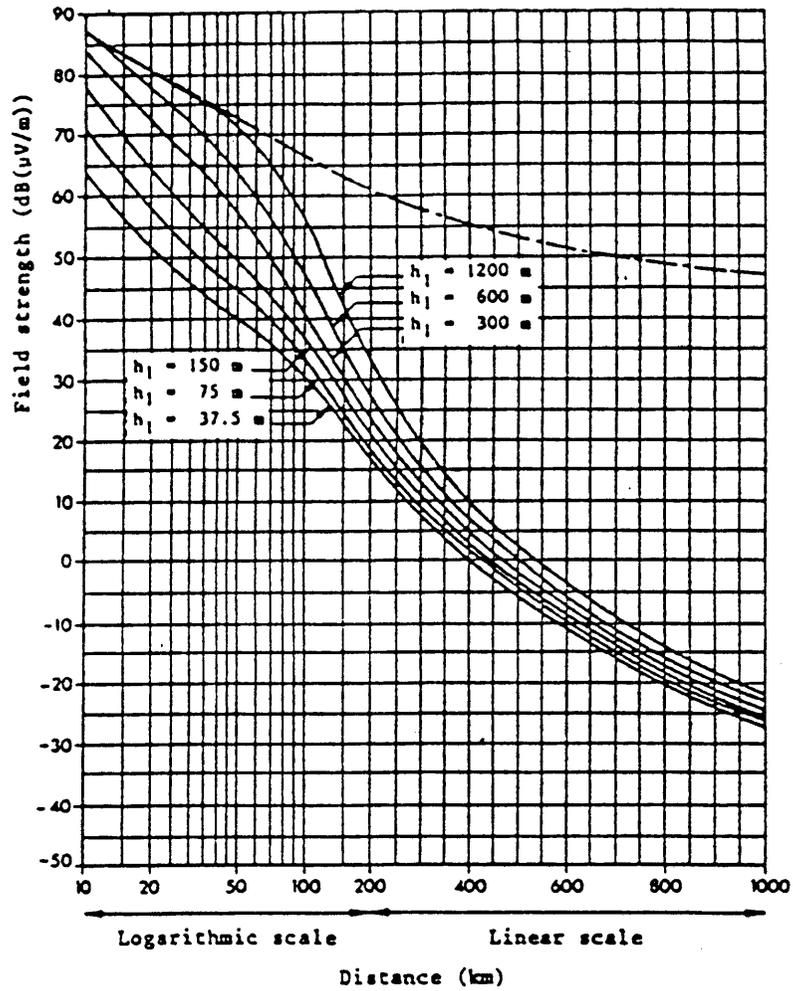


FIGURE 3

Field-strength [dB ( $\mu$ V/m)] for 1 kW e.r.p.

Frequency: 30 to 250 MHz (Bands I, II and III); Mediterranean Sea; 10% of the time; 50% of the locations;  $h_2 = 10$  m

----- Free space

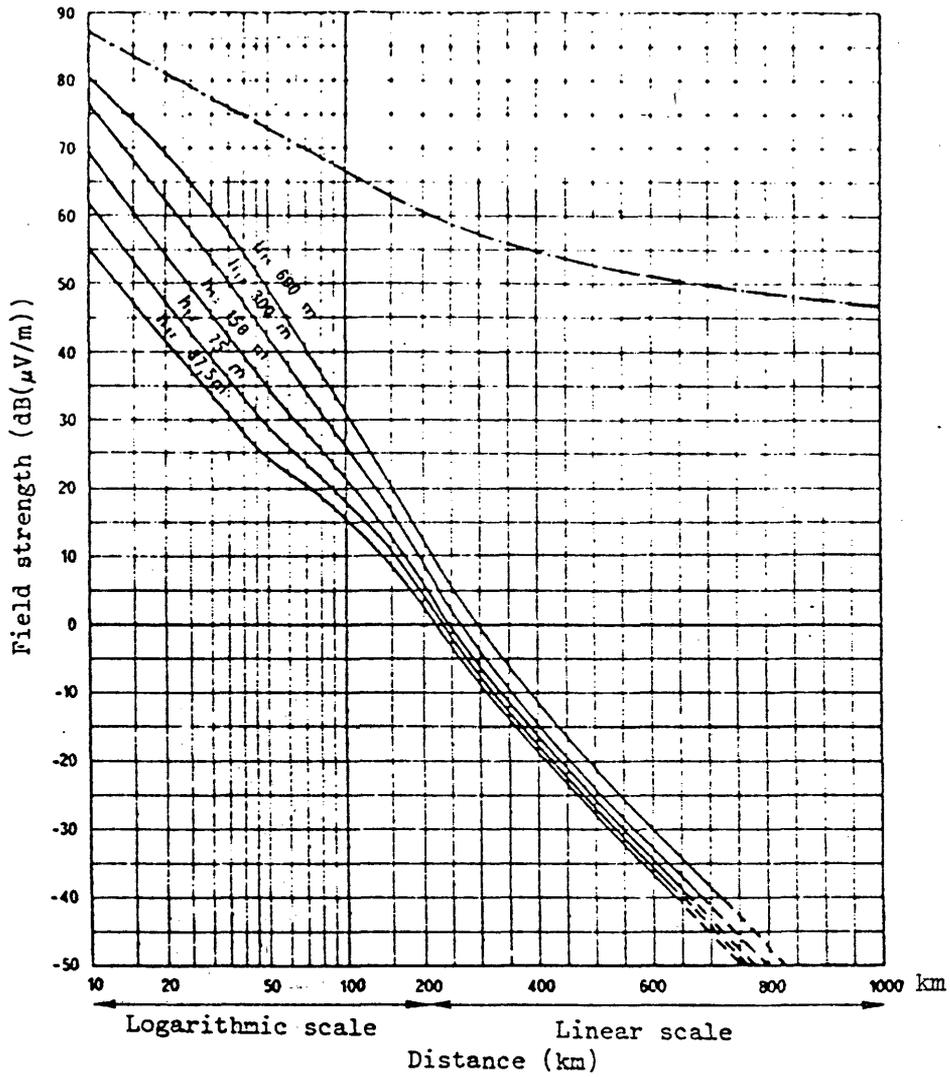


Figure 2.11 - Field strength ( $\text{dB}(\mu\text{V/m})$ ) for 1 kW e.r.p.

Frequency : 30 to 250 MHz, land, and cold sea;  
 10% of the time; 50% of the locations;  $h_2 = 3 \text{ m}$

..... : Free space

PROPAGATION CURVES FOR THE LAND MOBILE SERVICE

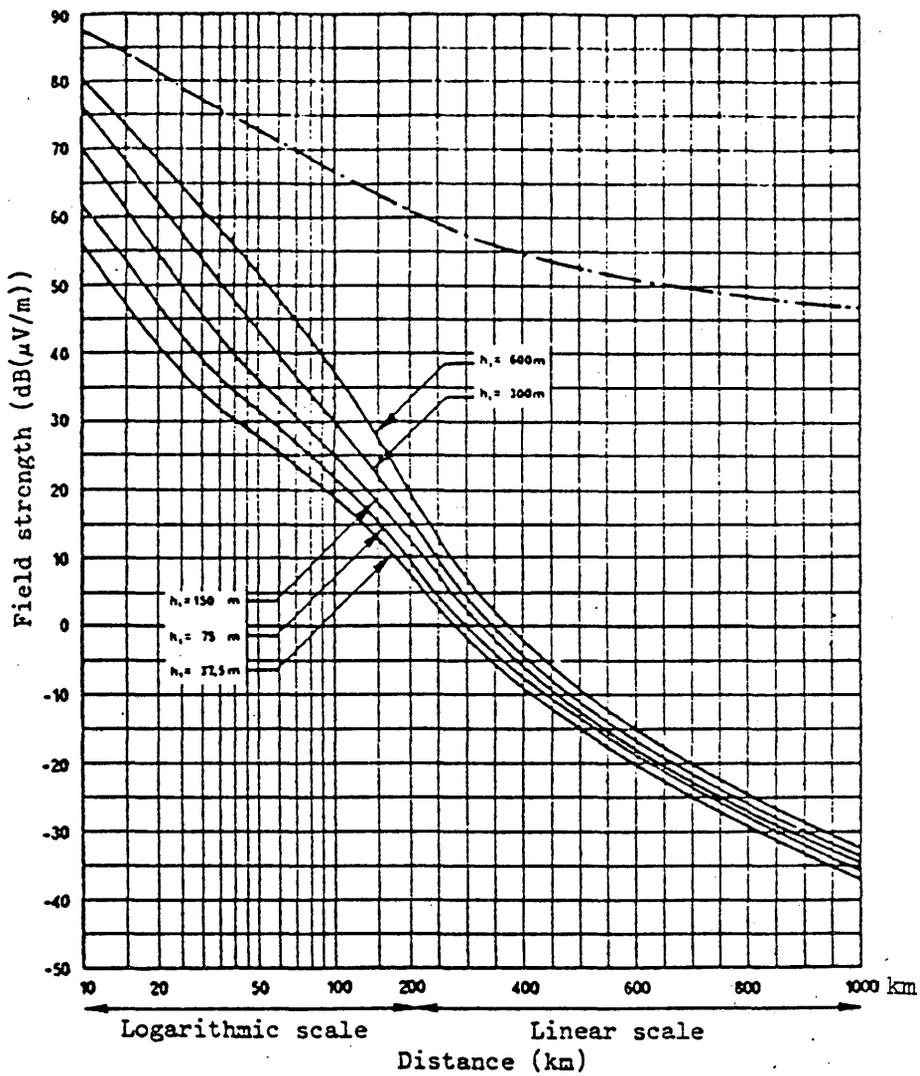


Figure 2.12 - Field strength (dB(μV/m)) for 1 kW e.r.p.

Frequency : 30 to 250 MHz; Warm sea;  
 10% of the time; 50% of the locations;  $h_2 = 3$  m

· - - - - - : Free space

PROPAGATION CURVES FOR THE LAND MOBILE SERVICE

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
 CONFERENCE**

Document DL/5-E  
 1st November, 1984

(SECOND SESSION)

GENEVA, 1984

Original : French

DRAFT CALENDAR FOR THE CONFERENCE

Friday	2	23.59 hours deadline for submitting requirements
Saturday	3	} → Capture - Validation
Sunday	4	
Monday	5	First Conference analysis/deadline for submission of requirements for countries not represented at the Conference
Tuesday	6	Distribution of BC/BC and BC/BT results
Wednesday	7	Distribution of BC/Aero results
Thursday	8	
Friday	9	
Saturday	10	
Sunday	11	
Monday	12	
Tuesday	13	} → Deadline for submission of modifications which might improve the Plan
Wednesday	14	
Thursday	15	
Friday	16	
Saturday	17	Second Conference analysis
Sunday	18	
Monday	19	Distribution of second analysis results
Tuesday	20	
Wednesday	21	
Thursday	22	
Friday	23	→ Deadline for submission of modifications which might improve the Plan
Saturday	24	} → Capture - Validation
Sunday	25	
Monday	26	
Tuesday	27	} → Third Conference analysis
Wednesday	28	
Thursday	29	
Friday	30	
Saturday	1	Distribution of third analysis results
Sunday	2	
Monday	3	} → Printing of the Plan
Tuesday	4	
Wednesday	5	First reading of Plan
Thursday	6	
Friday	7	

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/6-E  
8 November 1984  
Original : English

TECHNICAL  
SUB-WORKING GROUP PL/C

REPORT OF THE COORDINATOR OF THE PL/C DRAFTING GROUP

The Drafting Group of Sub-Working Group PL/C was established "to prepare texts to indicate technical limits for the land mobile, fixed and aeronautical mobile (OR) services which are to be used to indicate when coordination is required as a result of proposed modifications to the Plan".

The Drafting Group met at 1600 hours on Thursday, 8 November 1984 and finished its work at 1745 hours.

The Drafting Group agreed on the texts given in Annex 1, relating to the various services.

The limiting value of 0 dB at an antenna height of 10 metres, quoted for the land mobile service was arrived at as a compromise.

The Administrations of the Federal Republic of Germany and Italy, however, reserved their positions on these values.

In order to indicate the effect of the limiting values, the corresponding distances at which coordination becomes necessary are given in Annex 2.

Ch. NYKOPP  
Coordinator of the Drafting Group of  
the Technical Sub-Working Group PL/C

Annexes : 2

ANNEX 1

Annex [ ]

LIMITS FOR DETERMINING THE ADMINISTRATIONS WITH WHICH  
COORDINATION IS REQUIRED IN THE CASE OF A  
PROPOSED MODIFICATION TO THE PLAN  
(Article [ ], paragraph [ ])

1. Limits relating to the land mobile service

With respect to paragraph [ ], coordination with an administration is required if the proposed modification to the Plan would result in a field strength at the edge of the [ ] notified service area in the territory of [ ] exceeding [ ]  $0 \text{ dB}(\mu\text{V/m})$  [ ] calculated at an antenna height of [ ] 10 metres [ ] above ground. This field strength will be based on the curves appearing in Annex [ ], (50% of locations and 10% of time).

2. Limits relating to the fixed service

With respect to paragraph [ ], coordination with an administration is required if the proposed modification to the Plan would result in a field strength at the notified receiving site exceeding  $0 \text{ dB}(\mu\text{V/m})$  calculated at an antenna height of 10 metres above ground. This field strength will be based on the curves appearing in Annex [ ], (50% of locations, 1% of time) [ ].

3. Limits relating to the aeronautical mobile (OR) service

With respect to paragraph [ ], coordination with an administration is required if the proposed modification to the Plan would result in a field strength at the edge of the [ ] territory of [ ] exceeds [ ]  $20 \text{ dB}(\mu\text{V/m})$  at an altitude of 10,000 metres [ ]. This field strength is based on free space propagation.

ANNEX 2

e.r.p. of broadcasting station/ antenna height	Coordination distance (km) for		Field strength dB( $\mu$ V/m) for aeronautical (OR) at line-of-sight distance
	land mobile and fixed service	aeronautical mobile (OR) service	
100 kW/1,200 m	630	550*	72
1 kW/ 150 m	330	460*	54
100 W/ 75 m	230	445*	44

\* line-of-sight distance  
(effective Earth's radius is  $4/3$  of the actual radius)

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/7  
7 November 1984  
Original : French

STEERING COMMITTEE

Draft contents of the Final Acts of the Conference

Final Acts of the Regional Administrative Conference for FM Sound  
Broadcasting in the VHF Band (Region 1 and certain countries concerned in Region 3).

Regional Agreement on the use by the broadcasting service of frequencies in  
the VHF band in Region 1 and certain countries concerned in Region 3.

- Preamble [ Committee 5 ]
- Articles 1 to ... [ Committee 5 ]
- Concluding paragraph and signature
- Annex 1 : Frequency assignment Plan [ Committee 4 ]
- Annex 2 : Technical data used for preparing the  
Plan [ Technical Working Group ]
- Annex 3 : Technical data to be used for applying  
the Agreement [ Technical Working Group ]

Final Protocol

Additional Protocol(s) (if necessary) [ Committee 5 ]

Resolutions [ Committees 4 and 5 ]

Recommendations [ Committee 4, Technical Working Group and, if necessary,  
Committee 5 ].

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984.

Document DL/8-E  
12 November 1984  
Original : English

PLANNING GROUP 4D

PROCEDURE FOR DEALING WITH MODIFICATIONS

1. Deletions (SUP) will be accepted for processing without comment or discussion.
2. In the case of other modifications (MOD), the coordinator needs to be able to decide quickly whether it has any significance for other administrations in his coordination group or in other groups. Unfortunately, since the modification form is designed for use with a computer, the information contained in the boxes does not give a complete picture of the situation unless it can be compared with what is already in the computer file.
3. In consequence, I must ask for some additional information to be provided on the modification form, for reference purposes, as follows :
  - a) On the first page, in the space to the right of the administration's own serial number, quote
    - i) the frequency;
    - ii) the name of the station;
    - iii) the total power (e.r.p.);as these appear at present in the IFRB inventory file.
  - b) On page three,
    - i) if a modified height is indicated in box 05 or 06, write the previous height alongside, to the right of the box;
    - ii) if a change of frequency is indicated in box 14, write alongside the codes of those countries with which it has been coordinated. This should be supported by signatures, either here or on the back of the form.
4. The proposed modification will be examined in the light of the additional information detailed above and other facts which may be readily available. If it is clearly intended to improve the Plan, it will be accepted for processing without discussion. If, on the other hand, there is some doubt or the coordination is incomplete, it will be necessary to raise the matter in the coordination group or in the Planning Group itself.

In the case of modifications submitted before Thursday, 15 November 1984, it may be possible to deal with difficult cases by the submission of a supplementary Form 1 by an administration who may be adversely affected by the modification.
5. If a particular station is the subject of a Form 2, it would be helpful if the modification form for the station itself and any consequential modifications to other stations were presented together with the completed Form 2.

6. In the case of modification forms submitted before Thursday, 15 November 1984, if there is no Form 2 applicable to the station in question and if the administration is satisfied that the changes proposed will not affect any other administration, §§ 3 and 4 above will not apply.

Instead, the administration submitting the modification should simply state, in the space on the first page to the right of its own serial number "No other administration is affected".

A.L. WITHAM  
Chairman of Planning Group 4D

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/9-E  
12 November 1984  
Original : English

WORKING GROUP 5A

The following provisions, taken from the Geneva 1975 Agreement, are proposed to be included in the procedures :

3.5.1 If no agreement is reached between the administrations concerned, the I.F.R.B. shall make any study that may be requested by these administrations; the Board shall inform them of the result of the study and shall make such recommendations it may be able to offer for the solution of the problem.

3.5.2 Any administration may at any stage in the procedure described, or before applying it, request the assistance of the I.F.R.B., particularly in seeking the agreement of another administration.

3.5.3 If, after application of the procedure described in this Article, the administrations concerned have been unable to reach agreement, they may resort to the procedure described in Article 50 of the Convention. Administrations may also agree to apply the Optional Additional Protocol to the Convention.

3.5.4 In any case, the relevant provisions of Article 9\* of the Radio Regulations shall be applied when assignments are notified. When, no agreement having been reached, the I.F.R.B., following the notification of an assignment, records it in the Master International Frequency Register, the entry shall be accompanied by a symbol indicating that the entry has been made subject to the reservation that no harmful interference will be caused to frequency assignments in conformity with the Agreement.

3.5.5 The I.F.R.B. shall maintain an up-to-date master copy of the Plan, and of Appendix 1 relating to low power channels, taking account of the application of the procedure specified in this Article; to this end the I.F.R.B. shall prepare a document listing the amendments to be made to the Plan and Appendix 1 as a result of modifications made in accordance with the procedure of this Article and of the addition of new assignments in conformity with the Agreement.

3.5.6 The Secretary-General shall be informed by the I.F.R.B. of these changes made in the Plan and shall publish an up-to-date version of the Plan in an appropriate form as and when the circumstances justify and in any case every three years.

S.M. CHALLO  
Chairman

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/10-E  
12 November 1984  
Original : English

AD HOC GROUP 5A

ARTICLE 3

**Procedure for Modifications to the Plan**

1. When a [Contracting Member] proposes to make a modification to the Plan, i.e. either :
  - to change the characteristics of a frequency assignment to a broadcasting station shown in the Plan, whether or not the station has been brought into use, or
  - to bring into use an assignment to a broadcasting station not appearing in the Plan, or
  - to change the characteristics of a frequency assignment to a broadcasting station for which the procedure in this Article has been successfully applied, whether or not the station has been brought into use, or
  - to cancel a frequency assignment to a broadcasting station.

the following procedure shall be applied before any notification is made under the provisions of Article 12 of the Radio Regulations (see Article 4 of this Agreement).

2. In the remainder of the present Article, the term "assignment in accordance with the Agreement" means any frequency assignment appearing in the Plan or for which the procedure of this Article has been successfully applied.

3. *Proposed Changes in the Characteristics of an Assignment or the Bringing into Use of a new Assignment*

3.1 Any administration proposing a change in the characteristics of an assignment or the bringing into use of a new assignment shall seek the agreement of any other administration, [if the distance from the station under consideration to the nearest point of the boundary of the country of that administration is less than the limits corresponding to the proposed power of the station].

1st Alternative

3.2 In seeking this agreement, the administration proposing to modify the Plan shall communicate to the IFRB the information listed in [ ] together with the name of any administration, the agreement of which has already been obtained.

3.3 At the receipt of the information referred to in 3.2 above, the IFRB shall :

- a) identify the administrations which are concerned in accordance with 3.1;
- b) send immediately a telex to the administrations identified in point a) above, which have not yet given their agreement, drawing their attention to the information contained in the special section of the weekly-circular to be published, and indicating the nature of the modification to the Plan [and the results of calculation];
- c) publish, in a Special Section of the weekly-circular, the information received, together with the names of the administrations identified, indicating those, the agreement of which has been obtained.

3.4 This Special Section is to be considered as the formal request for agreement to those administrations, the agreement of which is still to be obtained.

3.5 Any administration which considers that it should have been included in the list of administrations whose frequency assignments are considered to be affected may, giving its reasons for so doing, request the IFRB within [ ] days from the date of publication of the weekly-circular to include its name. A copy of the request shall be sent to the administration proposing the modifications to the Plan.

3.6 An administration having received a telex from the IFRB sent in accordance with 3.3 above shall acknowledge receipt within [ ] days.

3.7 If at the expiry of [ ] the IFRB has not received an acknowledgement, it shall send a reminder telex and inform the administration that if no reply is received within [ ], this administration is deemed to have received the request for agreement.

3.8 [ ] days after the publication of the weekly-circular, the administration shall be requested by telex to give its decision in the matter and shall be informed that, in case no reply is received within an overall period of [ ] days following the date of publication of the weekly-circular, it is deemed to have no objection to the proposed modification to the Plan.

3.9 Comments from administrations on information published pursuant to 3.3 should be sent either directly to the administration proposing the modification or through the IFRB. In any event the IFRB shall be informed that comments have been made.

3.10 An administration may ask the administration proposing the modification for the additional information it considers necessary [to calculate the increase of the usable field strength]. Similarly, the administration proposing the modification may ask any administration whose agreement it seeks for the additional information it considers necessary. The administrations shall inform the IFRB of such requests.

3.11 An administration which has not notified its comments either to the administration concerned or to the IFRB within a period of [ ] following the date of the weekly circular referred to in 3.3 c) shall be understood to have agreed to the proposed change. This time limit may be extended by [ ] in the case of an administration which has requested additional information pursuant to paragraph 3.10.

M.J. BATES  
Chairman, Ad Hoc Group 5A

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

Document DL/11-E  
13 November 1984  
Original : English

(SECOND SESSION)

GENEVA, 1984

AD HOC GROUP 5A

**ARTICLE 3**

**Procedure for Modifications to the Plan**

1. When a Contracting Member proposes to make a modification to the Plan, i.e. either :
- to change the characteristics of a frequency assignment to a broadcasting station shown in the Plan, whether or not the station has been brought into use, or
  - to bring into use an assignment to a broadcasting station not appearing in the Plan, or
  - to change the characteristics of a frequency assignment to a broadcasting station for which the procedure in this Article has been successfully applied, whether or not the station has been brought into use, or
  - to cancel a frequency assignment to a broadcasting station.

the following procedure shall be applied before any notification is made under the provisions of Article 12 of the Radio Regulations (see Article 4 of this Agreement).

2. In the remainder of the present Article, the term "assignment in accordance with the Agreement means any frequency assignment appearing in the Plan or for which the procedure of this Article has been successfully applied.

3. *Proposed Changes in the Characteristics of an Assignment or the Bringing into Use of a new Assignment*

3.1 Any administration proposing a change in the characteristics of an assignment or the bringing into use of a new assignment shall seek the agreement of any other administration, [if the distance from the station under consideration to the nearest point of the boundary of the country of that administration is less than the limits corresponding to the proposed power of the station ].

3.2 The agreement mentioned in 3.1 is not required if :

a) the proposed modification relates to a reduction in e.r.p. or to other changes which would reduce the level of interference to services of other countries;

b) the distances from the station under consideration to the nearest points of the boundaries of other countries, the Administrations of which are Contracting Administrations, are equal to or greater than the limits corresponding to the proposed power of the station and other characteristics specified in [ ].

3.3 In seeking this agreement, the administration proposing to modify the Plan shall communicate to the IFRB the information listed in [ ] together with the name of any administration, the agreement of which has already been obtained.

3.4 At the receipt of the information referred to in 3.3 above, the IFRB shall :

- a) identify the administrations which are concerned in accordance with 3.1;
- b) send immediately a telex to the administrations identified in point a) above, which have not yet given their agreement, drawing their attention to the information contained in the special section of the weekly-circular to be published, and indicating the nature of the modification to the Plan;
- c) publish, in a Special Section of the weekly-circular, the information received, together with the names of the administrations identified, indicating those, the agreement of which has been obtained.

4. Consultation of the administrations, the stations of which may be affected

4.1 The Special Section of the IFRB weekly-circular, referred to in § 3.3 b), shall be considered as the formal request for agreement to those administrations whose agreement is still to be obtained.

4.2 Any administration which considers that it should have been included in the list of administrations whose frequency assignments are likely to be affected may, giving its reasons for so doing, request the IFRB within [A] days from the date of publication of the weekly-circular to include its name. A copy of the request shall be sent to the administration proposing the modifications to the Plan. The IFRB shall consider the matter and, if it finds that the name of this administration should have been included in the list, it will publish it in an addendum to the Special Section.

4.3 An administration having received a telex from the IFRB sent in accordance with 3.3 above shall acknowledge receipt within [B] days.

4.4 If at the expiry of [B] days, the IFRB has not received an acknowledgement, it shall send a reminder telex and inform the administration that if no reply is received within [C] days, this administration is deemed to have received the request for agreement.

4.5 On receipt of the Special Section of the IFRB weekly-circular referred to in 3.4 c), the administrations listed in it shall calculate, using the method contained in [ ], the increase in usable field strength [at the transmitter site] of their assignments which are in accordance with the agreement. An administration should normally give its agreement to the proposed modification if :

- the resulting usable field strength is not greater than [54 dB], or
- the usable field strength resulting from the Plan [adopted by the Conference] is greater than [54 dB], but is increased by less than [0.5 dB] as a result of the proposed modification. An increase of more than 0.5 dB is open to negotiations.

4.6 An administration which received a telex from the IFRB sent in accordance with 3.4 may request it to calculate the increase in the usable field strength resulting from the proposed modification as indicated in 4.5 above.

4.7 An administration may ask the administration proposing the modification for the additional information it considers necessary to calculate the increase of the usable field strength. Similarly, the administration proposing the modification may ask any administration whose agreement it seeks for the additional information it considers necessary. The administrations shall inform the IFRB of such requests.

4.8 An administration which is not in a position to give its agreement to the proposed modification shall give its reasons.

4.9 In case of continuing disagreement, the IFRB shall make any study **that may be requested by these administrations; the Board shall inform them of the result of the study and shall make such recommendations it may be able to offer for the solution of the problem.**

4.10 [ D ] days after the publication of the weekly-circular, the administration shall be requested by telex to give its decision in the matter and shall be informed that, if no reply is received within an overall period of [ E ] days following the date of publication of the weekly-circular, it is deemed to have agreed to the proposed modification to the Plan.

4.11 An administration may request the assistance of the IFRB in the following cases :

- in seeking the agreement of another administration;
- in applying any stage of the procedures described in this Article;
- in carrying out technical studies in relation to this procedure;
- in applying the procedure with respect to other administrations.

5. Comments of other administrations

5.1 Comments from administrations on information published pursuant to 3.4 should be sent either directly to the administration proposing the modification or through the IFRB. In any event the IFRB shall be informed that comments have been made.

5.2 An administration which has not notified its comments either to the administration concerned or to the IFRB within a period of [ E ] following the date of the weekly-circular referred to in 3.4 c) shall be understood to have no objection to the proposed change. This time limit may be extended by [ F ] in the case of an administration which has requested additional information.

6. Cancellation of Assignments

When an assignment in accordance with the Agreement is released, whether or not as a result of a modification (for instance a change of frequency), the administration concerned shall immediately so inform the I.F.R.B. The I.F.R.B. shall publish this information in a special section of its weekly circular.

7. Updating of the Plan

7.1 An administration which has obtained the agreement of the administrations whose names were published in the special section, may proceed with its project and shall inform the IFRB indicating the final agreed characteristics of the assignment together with the names of the administrations with which agreement has been reached.

7.2 The IFRB shall publish in a special section of its weekly circular the information received under 3.2 or 7.1 together with the names of any administrations with which the provisions of this article have been successfully applied. With respect to Contracting Members, the assignment concerned shall enjoy the same status as those appearing in the Plan.

7.3 The IFRB shall maintain an up-to-date master copy of the Plan, taking account of the application of the procedure specified in this Article; to this end the IFRB shall prepare a document listing the amendments to be made to the Plan as a result of modifications made in accordance with the procedure of this Article and of the addition of new assignments in conformity with the Agreement.

7.4 The Secretary-General shall be informed by the I.F.R.B. of these changes made in the Plan and shall publish an up-to-date version of the Plan in an appropriate form as and when the circumstances justify and in any case every three years.

8. Eliminating of harmful interference

If a change, although made in accordance with the provisions of this Article, causes harmful interference to services of other Contracting Administrations, the administration which has made the change shall take the requisite action to eliminate such interference.

9. Settlement of disputes

If, after application of the procedure described in this Article, the administrations concerned have been unable to reach agreement, they may resort to the procedure described in Article 50 of the Convention. Administrations may also agree to apply the Optional Additional Protocol to the Convention.

M.J. BATES  
Chairman of Ad Hoc Group 5A

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/12-E  
19 November 1984  
Original: English

PLANNING GROUP 4D

PROCEDURE FOR DEALING WITH MODIFICATIONS

1. The following paragraphs are to be read in conjunction with Document DL/8 dated 12 November 1984.
2. When considering modification forms (green) submitted after 15 November, it is important to take into account the different situation which now applies. As the next IFRB analysis will not appear until Monday, 3 December, the impact of modifications must be assessed more carefully to ensure, so far as possible, that they are indeed improvements.
3. It is, therefore, proposed to adapt the procedure set out in Document DL/8 to the new situation by introducing two small but important changes.
  - 3.1 Section 6 of Document DL/8 will no longer apply. An administration cannot simply state that no other administration is affected but should provide signatures in support in accordance with sections 3 and 4 of Document DL/8 or some other evidence which is acceptable to the Coordination Group.
  - 3.2 Since the last date for the submission of objections on Form 1 is Friday, 23 November, at 1200 hours, it will not be possible after that time for the Planning Group to accept a modification which raises a valid new objection from an administration that may be adversely affected. Before 23 November, it may be possible to accept such a modification in exceptional cases on the understanding that the affected administration can submit a supplementary request for coordination on Form 1. In such a case, the administration proposing the modification takes the risk that it may be difficult to resolve the situation before the last week of the Conference.
4. Delegates are reminded that modifications which are not self-evidently intended to improve the Plan may require discussion and administrations which may be affected cannot be expected to give their agreement immediately. Proposals of this type should therefore be brought forward in good time so as to permit announcement or publication 24 hours before a decision is to be taken.

# REGIONAL BROADCASTING CONFERENCE

(SECOND SESSION)

GENEVA, 1984

Document DL/13-E

19 November 1984

Original: French

PLANNING GROUP 4D

## Note by the Chairman of Planning Group 4D

### FORM 3

During the examination of Document DT/29 (Format of the Plan) by Committee 4 on Thursday, 15 November, some delegations expressed the wish to have included in the Plan the sectors of limited radiation which have resulted from agreements made before or during the Conference but which have not been recorded on Form 2.

The Committee noted the difficulty involved in the automatic extraction of such information from box 32. To overcome this difficulty and to meet the request, the annexed form is proposed to Group 4D for use by the administrations concerned.

Annex: 1

ANNEXE 1 - ANNEX 1 - ANEXO 1  
FORMULAIRE 3 - FORM 3 - FORMULARIO 3

Secteurs ou directions ou la puissance apparente rayonnée est limitée (voir Colonne 15 et 16 du Plan, Document 116)

Sectors or directions where E.R.P. is limited (See box 15 and 16 of the Plan, Document 116)

Sectores o direcciones en las que la potencia aparente radiada está limitada (véanse las columnas 15 y 16 del Plan, Documento 116)

ADM	Date/Fecha	Signature/Firma

N° de Série IFRB IFRB Serial No. N.° de Serie IFRB
--

	<u>15.1</u> *	<u>16.1</u> *	15.2*	16.2	15.3*	16.3*	15.4*	16.4*
_____	-	-	-	-	-	-	-	-
_____	-	-	-	-	-	-	-	-
_____	-	-	-	-	-	-	-	-
_____	-	-	-	-	-	-	-	-

\* Voir Document 116.  
\* See Document 116.  
\* Ver document 116.

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/14  
19 November 1984  
Original: English

WORKING GROUP 5C

INFORMATION NOTE BY THE  
CHAIRMAN OF WORKING GROUP 5C

1. The Annex to this Information Note contains a draft table of contents of Annex 2 of the Final Acts, concerning the technical data used for preparing the Plan.
2. The Annex was prepared in order to facilitate the discussions on the subject.

J. RUTKOWSKI  
Chairman of Working Group 5C

Annex: 1

ANNEX

Draft

ANNEX 2

TECHNICAL DATA USED FOR THE PREPARATION OF THE PLAN

	<u>Reference</u>
1. <u>Definitions</u>	
1.1      Coverage area	Rep. p. 3
1.2      Service area	Rep. p. 3
1.3      Nuisance field	Rep. p. 23
1.4      Usable field strength	Rep. p. 3
1.5      Simplified multiplication method	Rep. p. 128
1.6      Mechanisms of interferences to the aeronautical radionavigation service	Rep. p. 38
2. <u>Propagation</u>	
2.1      Propagation data for VHF broadcasting	
2.1.1    General	Doc. 61 p. 2
2.1.2    Areas subject to extreme super-refractivity	Doc. 61 p. 3 Doc. 85 p. 2
2.1.3    Application of the curves	Doc. 61 p. 4
2.2      Propagation data for aeronautical radionavigation service	Doc. 85 p. 2
3. <u>Technical standards and transmission characteristics           for the (sound) broadcasting service</u>	
3.1      Channel spacing	Rep. p. 21
3.2      Modulation standards	Rep. p. 21
3.3      Protection ratios	Rep. p. 22
3.4      Minimum usable field strength	Rep. p. 28
3.5      Antenna characteristics, polarization	Rep. p. 28
4. <u>Sharing criteria for sharing with other services</u>	
4.1      Frequency sharing with television	Rep. p. 31
4.1.1    Interference to television broadcasting	Rep. p. 31
4.1.2    Interference to FM sound broadcasting	Rep. p. 31

Reference

4.2	Compatibility with aeronautical radionavigation service	
4.2.1	Coordination contour and test points	Rep. p. 119 Doc. 86 p. 2 Doc. 89 + Corr.1.
4.2.2	Principles of calculation	Doc. 86 p. 2
4.2.3	Minimum field strength to be protected	Doc. 86 p. 2
4.2.4	Type A1 interference	Doc. 86 p. 3
4.2.5	Type A2 interference	Doc. 86 p. 5
4.2.6	Type B1 interference	Doc. 86 p. 5
4.2.7	Type B2 interference	Doc. 86 p. 7

---

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

---

Document DL/15-E  
19 November 1984  
Original: English

WORKING GROUP 5C

INFORMATION NOTE BY THE  
CHAIRMAN OF WORKING GROUP 5C

1. The annex to this Information Note contains a draft table of contents of Annexes 3 to 5 of the Final Acts, concerning the technical data used for preparing the Plan.
2. The annexes were prepared in order to facilitate the discussions on the subject.

J. RUTKOWSKI  
Chairman of Working Group 5C

Annex: 1

ANNEX

ANNEX 3

BASIC CHARACTERISTICS TO BE FURNISHED IN NOTICES  
RELATING TO THE BROADCASTING STATIONS

References

Doc. 116

ANNEX 4

LIMITS FOR DETERMINING WHEN COORDINATION WITH ANOTHER ADMINISTRATION  
IS REQUIRED AS A RESULT OF A PROPOSED MODIFICATION TO THE PLAN

References

- |    |   |                             |
|----|---|-----------------------------|
| 1. | Limits relating to sound broadcasting                   |                             |
| 2. | Limits relating to TV broadcasting                      | Rep. p. 31                  |
| 3. | Limits relating to aeronautical radionavigation service | Doc. 86 p. 2                |
| 4. | Limits relating to land mobile service                  | Doc. 108 p. 4-5<br>Doc. 118 |
| 5. | Limits relating to fixed service                        | Doc. 108 p. 4-5             |
| 6. | Limits relating to aeronautical mobile (OR) service     | Doc. 108 p. 4-5             |

ANNEX 5

ADDITIONAL TECHNICAL DATA WHICH MAY BE  
USED IN COORDINATION BETWEEN ADMINISTRATIONS

References

- |    |                                      |                             |
|----|--------------------------------------|-----------------------------|
| 1. | Broadcasting sound service           | Doc. 123                    |
| 2. | Broadcasting TV service              |                             |
| 3. | Aeronautical radionavigation service |                             |
| 4. | Land mobile service                  | Doc. 108 p. 2<br>Rep. p. 35 |
| 5. | Fixed service                        | Rep. p. 38                  |
| 6. | Aeronautical mobile (OR) service     | Doc. 108 p. 2               |

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/16(Rev.1)-E  
20 November 1984  
Original: English

WORKING GROUP 5A

The following provisions are proposed to replace paragraphs 3, 3.1, 3.2, 3.3 of DT/30.

3.  Proposed changes in the characteristics of an assignment or the bringing into use of a new assignment.

3.1 Any administration proposing to change the characteristics of an assignment appearing in the Plan or to add a new assignment in the Plan shall communicate to the IFRB the information listed in . Before so doing the administration proposing to modify the Plan shall,  except in those cases where consultation between administrations is not possible for any reason,  seek  request the agreement of any other administration if the distance from the station under consideration to the nearest point of the boundary of the country of that administration is less than the limit indicated in .

3.2 The agreement mentioned in 3.1 is not required if:

- a) the proposed modification relates to a reduction in e.r.p. or to other changes which would reduce the level of interference to services of other countries;
- b) the distances from the station under consideration to the nearest points of the boundaries of other countries, the administrations of which are Contracting Administrations, are equal to or greater than the limits indicated in .

c) site tolerance to be eventually introduced.

3.3 When communicating the information listed in  as indicated in 3.1 above, the administration shall either indicate:

- a) that the agreement referred to in 3.1 is not required with any administration, or otherwise,
- b) the name of any administration which has already agreed to a proposed modification to the Plan on the basis of the characteristics communicated.

S.M. CHALLO  
Chairman

# REGIONAL BROADCASTING CONFERENCE

(SECOND SESSION)

GENEVA, 1984

Document DL/16-E  
19 November 1984  
Original: English

AD HOC GROUP 5A

The following provisions, taken from the Geneva 1975 Agreement, are proposed to be included in the procedures:

- "3. Proposed changes in the characteristics of an assignment or the bringing into use of a new assignment.
- 3.1 An administration proposing a change in the characteristics of an assignment or the bringing into use of a new assignment shall seek the agreement of any other administration whose  sound broadcasting  stations may be affected.
- 3.2 The agreement mentioned in 3.1 is not required if:
- a) the proposed modification relates to a reduction in e.r.p. or to other changes which would reduce the level of interference to services of other countries;
  - b) the distances from the station under consideration to the nearest points of the boundaries of other countries, the administrations of which are Contracting Administrations, are equal to or greater than the limits indicated in  .
- 3.3 Except in cases where consultation between administrations is not possible for any reason, administrations shall seek such agreement directly.
- 3.4 The administration proposing to modify the Plan shall communicate to the IFRB information listed in  . Administrations may communicate this information after having directly requested the agreement of other administrations. In this case it shall indicate the names of administrations whose agreement on these characteristics has already been obtained."
-

# REGIONAL BROADCASTING CONFERENCE

(SECOND SESSION)

GENEVA, 1984

Document DL/17-E

22 November 1984

Original: French

STEERING COMMITTEE

## INFORMATION NOTE BY THE CHAIRMAN OF THE EDITORIAL COMMITTEE

Following discussions in Committee 6, it is suggested that the concept of "planning" should be introduced in the title of the Final Acts of the Conference, as has already been done in the case of conferences of this type - e.g. the Regional Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Region 2 (Geneva, 1983).

It is therefore suggested that the following text be added under the heading "Definitions" in Article [ 1 ] of the Regional Agreement of the Conference:

"The term Conference means the Regional Administrative Conference for FM Sound Broadcasting in the VHF Band (Region 1 and certain countries concerned in Region 3)\* (Geneva, 1984), also called the Regional Administrative Conference for the Planning of VHF Sound Broadcasting (Region 1 and part of Region 3) (Geneva, 1984).

---

\* Pro mem., this Conference was held in two sessions:

- the first session, responsible for preparing a report to the second session, was held in Geneva from 23 August to 17 September 1982;
- the second session, responsible for drawing up a Plan, was held in Geneva from 29 October to 7 December 1984."

H. BERTHOD  
Chairman of Committee 6

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

Document DL/18-E  
22 November 1984  
Original: French

(SECOND SESSION)

GENEVA, 1984

AD HOC GROUP 4

MATTERS TO BE DISCUSSED

In accordance with the terms of reference of the ad hoc Group, information must be prepared to enable Committee 4 to take a decision on the status of assignments not resolved during the Conference.

A report to Committee 4 could be established on the basis of conclusions reached after discussion of the following points:

- 1) The Plan will contain the following assignments:
  - a) those to which no objection has been raised during the Conference;
  - b) those to which objections have been raised but which have been agreed upon by all the administrations concerned during the Conference;
  - c) those to which objections have been raised but which have not been agreed upon by all the administrations concerned.
- 2) Should an unresolved case be defined? If so, one of the following two definitions might be given:
  - a) an unresolved case concerns an assignment to which an objection has been raised by one or more administrations and which has not secured all the necessary agreements during the Conference;
  - b) an unresolved case concerns an assignment which causes a level of interference higher than a limit to be defined by the Conference and which has not secured all the necessary agreements during the Conference; this limit might be:
    - a usable field strength level of the assignment concerned,
    - a nuisance field strength level,
    - another criterion to be defined.
- 3) If the Plan includes unresolved cases, should this situation be indicated:
  - a) with a reference to the administration whose agreement has still to be obtained and by mentioning the type of station affected, namely:
    - sound broadcasting station,
    - aeronautical radionavigation station, or
    - television station;

- b) with a reference to the administration whose agreement still has to be obtained, without any further indication?
- 4) If the Plan includes unresolved cases, should they appear in the Plan:
- a) until they are resolved, without any time limit;
  - b) until a date subsequent to the date of entry into force of the Final Acts of the Conference;
  - c) until the date of entry into force of the Final Acts of the Conference?
- 5) If an interim procedure has to be applied to modify the Plan before the date of entry into force of the Final Acts, should this interim procedure protect unresolved cases and should the reference situation be considered as:
- that arising only from coordinated stations; or
  - that arising from all stations in the Plan?
- 6) After the date of entry into force of the Final Acts, should a draft modification of the Plan protect unresolved cases and should the reference situation be considered as:
- that arising only from coordinated stations; or
  - that of all stations included in the Plan?

N. BOUHIRED  
Chairman of ad hoc Group 4

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/19-E  
26 November 1984  
Original: English

PLANNING GROUP 4D

SOUND BROADCASTING AND TELEVISION

1. As noted in Chapter 4 of the Report to the second session, several countries are operating television transmitters in the band 87.5 to 100 MHz. At least one country intends to continue using this band for television indefinitely. Other countries have indicated that they may cease to use the band for television at some future date and are therefore planning sound broadcasting stations to cover that eventuality.

2. It may be assumed that the Plan for sound broadcasting which is concluded by the Conference will be compatible with those television assignments which are to remain in use indefinitely. However the timing of the transition from television to sound broadcasting in the various countries concerned is uncertain and will probably not be coincident. It may well be progressive over a number of years.

3. The relationship between existing television and planned sound broadcasting assignments in the countries concerned is complex and it is clear that a degree of coordination will be required in the implementation of many of the planned sound broadcasting assignments.

4. Three possible ways of dealing with this transition are suggested.

4.1 Committee 5 is asked to develop a transition procedure to cover the progressive implementation of sound broadcasting and the cessation of television over a number of years.

4.2 The countries concerned sign an additional protocol undertaking to implement the relevant sound broadcasting assignments in a coordinated and mutually acceptable manner  to be agreed by a specified date .

4.3 Where the implementation of a particular planned sound broadcasting assignment depends on the cessation of one or more television assignments in another country or countries, there could be a suitable note to that effect in column  17  of the Plan.

For example, the implementation of this assignment is contingent on the cessation of certain television assignments in  countries X, Y  and may not take place  until a date to be agreed with that/those administration(s)   before a specified date .

5. The suggestions offered in paragraph 4 are not mutually exclusive. For example, 4.3 could be combined with one of the other two, modified if necessary.

A.L. WITHAM  
Chairman of Planning Group 4D

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/20-E  
26 November 1984  
Original: French

COMMITTEE 5

DRAFT NOTE FROM COMMITTEE 4  
TO COMMITTEE 5

Committee 5 is asked to establish appropriate procedures reflecting the principles contained in Document ∟ ... ∟ adopted by Committee 4.

Dr. I. STOJANOVIĆ  
Chairman of Committee 4

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/21-E  
26 November 1984  
Original: French

TECHNICAL WORKING GROUP  
OF THE PLENARY

DRAFT NOTE FROM COMMITTEE 4 TO  
THE TECHNICAL WORKING GROUP OF THE PLENARY

The Technical Working Group of the Plenary is asked to establish the limit value or values to be used to settle unresolved cases in accordance with the principle contained in paragraph 1 of Document [ ... ] adopted by Committee 4.

Dr. I. STOJANOVIĆ  
Chairman of Committee 4

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/22-E  
26 November 1984  
Original: French

COMMITTEE 4

DRAFT REPORT BY AD HOC GROUP 4  
TO COMMITTEE 4

Ad hoc Group 4 held two working sessions and unanimously decided to submit the following proposals to Committee 4:

1. Definition of an unresolved case

An unresolved case concerns an assignment which causes a level of interference higher than a limit to be defined by the Conference and which has not secured all the necessary agreements during the Conference; this limit might be:

- a usable field strength level of the assignment concerned;
- a nuisance field strength level;
- the average usable field strength level, increased by a value to be defined by the Conference.

This value will be established by the Technical Working Group of the Plenary and will be used to settle unresolved cases during and after the Conference.

2. Cases unresolved during the Conference will be entered in an appendix to the Plan with a reference to administrations with which coordination is still required.

3. Status of unresolved cases

Unresolved cases should be protected by the modification procedure (Article 3 of the Agreement). The usable field strength to be taken into consideration is that of the reference situation of the Plan and its appendix.

This protection will be provided after the Conference until a time limit to be adopted by the Conference.

After that date, the appendix will be deleted from the Agreement and the cancelled assignments will be considered as modifications or additions to the Plan, in accordance with Article 3 of the Agreement.

4. As a result of the decisions taken by the Plenary on 26 November 1984, ad hoc Group 4 has not examined unresolved cases relating to aeronautical radionavigation.

5. The Group has also adopted two draft notes, to the Technical Working Group of the Plenary and to Committee 5 (see annexes hereto).

N. BOUHIED  
Chairman of ad hoc Group 4



INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/24-E  
29 November 1984  
Original : French

STEERING COMMITTEE

Note by the Secretary of the Conference

FOR INFORMATION

FINAL DAYS OF THE CONFERENCE

1. Final Acts

The copies of the Final Acts will be distributed in the following manner :

- the Plan : one copy for each delegation to be collected from the Document Distribution Service on Tuesday, 4 December :
  - at 0900 hours : printed copy of the Plan including columns 1 to 17 (see Document 154),
  - at 1400 hours : set of microfiches providing information on the Plan assignments, including the information in columns 18 and 19.
- Final Acts (excluding the Plan) : one copy per delegate, distributed in the document distribution boxes before the signing ceremony.

Note - Delegates who leave the Conference before the signing ceremony are requested to fill in a form available at the Document Distribution Service to enable the Secretariat to dispatch their copies after the Conference.

2. Declarations concerning the Final Acts

When the last text to be included in the Final Acts of the Conference has been approved in second reading by the Plenary Meeting, a time limit will be set for the deposit of declarations concerning the Final Acts.

The declarations concerning the Final Acts are to be handed in to the Executive Secretary of the Conference (office J.165) for publication in a consolidated document.

The Plenary Meeting will take note of the declarations concerning the Final Acts and fix a second deadline for the deposit of additional declarations having regard to the first set of declarations.

A subsequent Plenary Meeting will take note of the additional declarations.

3. Signing ceremony

Between the final adoption, in second reading, of the last texts of the Final Acts and the signing ceremony, a period of 18 hours is required :

- for the preparation and printing of the Final Acts, and
- for the deposit and publication of the declarations and additional declarations, as well as for the Plenary Meeting held to take note of them. The time of the opening of the signing ceremony will therefore depend on when the last text is cleared in Plenary.

It should be noted that delegations (or members thereof) wishing to sign the Final Acts before the signing ceremony may do so by application to office J.165 (Mr. Macheret).

4. Programme for the final days of the Conference

The programme in the annex has been adopted by the Steering Committee for the final days of the Conference.

J. JIPGUEP  
Secretary of the Conference

Annex : 1

ANNEX

PROGRAMME FOR THE FINAL DAYS OF THE CONFERENCE

Monday 3

1400 hrs : Distribution of the third and last analysis (in printed form; the related microfiches will be distributed on Tuesday, 4 December)

Distribution of the last version of Form 2

Tuesday 4

0900 hrs : Distribution of the draft Plan in printed form and provision of the forms for the correction of material errors in the Plan (with the same presentation as the forms for modifications)

1200 hrs : Deadline for submission of Form 4 (radionavigation B1)

1400 hrs : Distribution of microfiches relating to the third analysis Report of Committee 2 (Credentials)

Wednesday 5

1200 hrs : Deadline for the submission of Form 2 (Addendum to the Plan, stations coordinated after Thursday 29 at 1200 hours) as well as the Plan correction forms

Report of Committee 3 (Budget Control)

End of first reading (blue documents) of the texts of the Final Acts

Thursday 6

0900 hrs : Distribution of the list of type B1 incompatibilities\*

0900 hrs : First reading of the draft Plan by the Plenary

afternoon } Second reading of the draft Plan by the Plenary (modifications only)  
or early }  
evening } End of the second reading (pink documents) of the texts of the  
Final Acts

2100 hrs : Deadline for handing in declarations concerning the Final Acts

---

\* Type A1 incompatibilities will be dealt with after the Conference, with appropriate entries in the Plan according to the last analysis.

Friday 7

- 0800 hrs : Distribution of the document containing the declarations concerning the Final Acts
- 0900 hrs : Plenary Meeting at which the declarations are noted
- 1100 hrs : Deadline for handing in additional declarations having regard to the first set of declarations
- 1500 hrs : Distribution of the document containing the additional declarations
- 1600 hrs : Plenary Meeting at which the additional declarations are noted
- 1700 hrs : Signing ceremony and closure
-

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/25-E  
29 November 1984  
Original: English

WORKING GROUP 5C

ADDENDUM TO DOCUMENT DT/60

(page 4)

Add the following text as second paragraph to 7.4 Test points:

"As the number of test points are insufficient, for the future coordination between administrations use of additional test points can be introduced by the administration concerned."

J. RUTKOWSKI  
Chairman of the Working Group

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/26-E  
30 November 1984  
Original: English

COMMITTEE 5

PROPOSED MODIFICATION TO DOCUMENT 155(Rev.1)

Replace section 3.8.2 by the following:

"3.8.2 Receiving antennas

For services registered as using stereophonic transmissions the directivity curve of Figure 3.3 was taken into account by administrations for assessing coverage areas. For services registered as using monophonic transmissions an omnidirectional receiving antenna was assumed.

In the computer analysis of the Plan, during the Conference, no account was taken of receiving antenna directivity since the usable field strength was calculated at the transmitter site.

The antenna has been assumed to be at a height of 10 m above ground."

---

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/27-E  
30 November 1984  
Original: English

DRAFT RECOMMENDATION . . .

**Relative to the development of provisions governing  
the use of the band 108-117.975 MHz by the  
aeronautical radionavigation service**

The Regional Administrative Conference for the Planning of VHF Sound Broadcasting (Region 1 and part of Region 3) (Geneva, 1984).

considering

- a) that in accordance with its mandate contained in Administrative Council Resolution 896, it adopted the Regional Agreement for FM Sound Broadcasting in the VHF Band in Region 1 and certain countries in Region 3 and the Associated Frequency Assignment Plan for the Sound Broadcasting Stations in the band 87.5-108 MHz;
- b) that its mandate referred to under a) above did not include the establishment of provisions governing the implementation of new aeronautical radionavigation stations nor the modification of basic characteristics of such stations vis-à-vis assignments in the Plan;
- c) that, the agenda for its second session (Resolution No. 896) required adequate protection to be given to stations of the Aeronautical Radionavigation Service in the band 108 to 117.975 MHz;
- d) that it developed technical criteria for assessing compatibility between the two services;
- e) that it developed an amendment procedure for the broadcasting plan which included coordination with the Aeronautical Radionavigation Service;
- f) that the CCIR and the ICAO are requested to continue to study the compatibility between the two services (Recommendation GTECH/2).

noting

that the Regional Agreement referred to in considering a) contains provisions to ensure adequate protection to stations in the aeronautical radionavigation service in the band 108 - 117.975 MHz;

recommends

that administrations, in cases where there may be an incompatibility involving more than one administration, should coordinate future frequency assignments to stations of the aeronautical radionavigation service in the band 108 to 117.975 MHz, and any existing assignments which were not communicated to the Conference, with the FM broadcasting service in the band 87.5 to 108 MHz using the protection criteria specified at Section [ ] of the Final Acts together with any later refinements and additions by the CCIR.

# REGIONAL BROADCASTING CONFERENCE

(SECOND SESSION)

GENEVA, 1984

Document DL/28-E  
30 November 1984  
Original: English

COMMITTEE 5AMENDMENTS IN DOCUMENT 139

Replace 2.2 in Document 139 by the following:

- Document 172
- 2.2 a) The sound broadcasting stations of an administration are likely to be affected by a proposed modification to the Plan if the distance from the station under consideration to the nearest point of the boundary of the country of that administration is less than the limit indicated in [ ].
- 2.2 b) The television stations of an administration in the band 87.5 - 100 MHz which are in conformity with the Stockholm 1961 Agreement are likely to be affected by a proposed modification to the Plan if the distance from the station under consideration to the nearest point of the boundary of the country of that administration is less than the limit indicated in [ ].
- 2.2 c) The fixed and mobile stations of an administration of a Contracting Member in Region 3 in the band 87.5 - 100 MHz are likely to be affected by a proposed modification to the Plan if the limits indicated in [ ] are exceeded.
- 2.2 d) The aeronautical radionavigation stations of an administration in the band 108-117.975 MHz are likely to be affected by a proposed modification to the Plan if the distance from the station under consideration to the nearest point of the boundary of the country of that administration is less than the limit indicated in [ ]. However, in this case, the procedure to be applied is contained in Article [ ].
- Doc. 165
- 2.2 e) The mobile stations of an administration of a Contracting Member in Region 1 in the band 87.5 - 88 MHz, coordinated under Article 14 of the Radio Regulations, are likely to be affected by a proposed modification to the Plan if the limits indicated in [ ] are exceeded."

Insert after 2.5 the following new paragraph:

- 3.5 of  
Doc. 160
- "2.5bis When requesting the agreement of another administration, the administration proposing to modify the Plan may also communicate any additional information relating to proposed methods and criteria to be used as well as other details concerning the terrain conditions, particular propagation problems, etc."

Replace 3.5 and 3.6 by the following:

"3.5 On receipt of the Special Section of the IFRB weekly-circular referred to in sections 2.6c) and 3.2. Any administration listed therein shall determine the impact on its assignments resulting from the proposed modification to the Plan using any of the additional information referred to in section 3.5 which is acceptable to it.

3.6a) If an administration consulted [ ] is responsible for a sound broadcasting station [ ] should normally accept the proposed modification provided that:

- the resulting usable field strength is not greater than 54 dB( $\mu$ V/m), or
- the resulting usable field strength is greater than 54 dB( $\mu$ V/m), but is increased by 0.5 dB or less compared with the usable field strength [resulting from the Plan adopted by the Conference and from the television stations in accordance with the Stockholm Agreement at the date of the Conference]. An increase of more than 0.5 dB is open to negotiations, in which more detailed calculation methods may be used.

The limits referred to in section 3.6a) shall be calculated by the method contained in [ ] at the transmitter site or at specific points of the service area of the stations which are likely to be affected.

The reference values indicated in section 3.6a) are those resulting from the Plan adopted by the Conference or from the first entry of an assignment in the Plan. If, due to deletions or modifications, the particular reference value becomes lower, then this lower value becomes the reference.

3.6 b) If the administration consulted is responsible for a television station, this administration is recommended to accept an increase in the usable field strength at the transmitter site, calculated by the method contained in [ ], provided that:

- the resulting usable field strength is not greater than 54 dB( $\mu$ V/m), or
- the resulting usable field strength is greater than 54 dB( $\mu$ V/m), but is increased by 0.5 dB or less compared with the usable field strength [resulting from the Plan adopted by the Conference and from the television stations in accordance with the Stockholm Agreement at the date of the Conference]. An increase of more than 0.5 dB is open to negotiations, in which more detailed calculation methods may be used.

3.6 c) If the administration consulted is responsible for a land mobile station in Region 3, this administration is recommended to accept the following interfering field strength;

-18 dB( $\mu$ V/m) if the sound broadcasting station uses horizontal polarization;

-0 dB( $\mu$ V/m) if the sound broadcasting station uses vertical or mixed polarization.

3.6 and 3.7 of Document 160

Mod 3.8 of Document 160

Document 172

Document 172

These field strengths are calculated using the method contained in [ ] at 10 m above ground at the site of the base station using vertical polarization.

3.6 d) If the administration consulted is responsible for a station in the fixed services this administration is recommended to accept an interfering field strength of 0 dB( $\mu$ V/m) at 10 m above ground, calculated in accordance with the method in [ ].

Document 165 Annex II

3.6e) If the administration in Region 1 consulted is responsible for a band mobile station, the following interfering field strengths should normally be accepted:

- for amplitude modulated mobile stations 14 dB( $\mu$ V/m) if the sound broadcasting station uses horizontal polarization;
- for frequency modulated mobile stations 24 dB( $\mu$ V/m) if the sound broadcasting station uses horizontal polarization;
- for amplitude modulated mobile stations 6 dB( $\mu$ V/m) if the sound broadcasting station uses vertical or mixed polarization;
- for frequency modulated mobile stations 16 dB( $\mu$ V/m) if the sound broadcasting station used vertical or mixed polarization.

These field strengths are calculated using the method contained in [ ] at 10 metres above ground at the edge of the service area."

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/29-E  
30 November 1984  
Original: English

COMMITTEE 5

ARTICLE 3 OF THE AGREEMENT

ARTICLE 3

**Content of the Plan**

1. The Plan contains frequency assignments and associated characteristics of sound broadcasting stations in the band 87.5-108 MHz, coordinated either during the Conference, or by application of provisions contained in this agreement, and is composed of two parts.

1.1 The first part, including frequency assignments in the band 87.5-100 MHz, is intended to replace the corresponding sound broadcasting plans appearing in the Regional Agreements Stockholm 1961 and Geneva 1963. The provisions of this Agreement are applicable to these assignments in the relations between all Contracting Members in the planning area.

1.2 The second part contains frequency assignments in the band 100-108 MHz prepared in accordance with No. 584 of the Radio Regulations in order to permit all countries of Region 1 to use this band for sound broadcasting. The provisions of this agreement are applicable to these assignments in the relations between all Contracting Members in the planning area. In the absence of provisions applicable to all countries in Region 1, to be adopted by a competent Administrative Radio Conference, non-Contracting Members in the planning area will be recommended to apply these provisions until a competent Administrative Radio Conference adopts provisions applicable to them (see Recommendation in document 169).

2. The Plan also includes, for a fixed term, a list of the assignments in respect of which coordination still has to be effected; these assignments are listed in the Appendix.

ARTICLE 11

**Duration and Entry into force of the Agreement**

1. This Agreement and the annexed Plan have been established with a view to meeting the requirements of the broadcasting service (sound) in the band 87.5-108 MHz for a period of 20 years from the date of entry into force of the Agreement.
2. This Agreement shall enter into force on [1 January 1987, at 0001 hours UTC].
3. On that date, with the exception of stations operating in conformity with No. 342 of the Radio Regulations, sound broadcasting stations in service corresponding to frequency assignments which do not appear in parts 1 and 2 of the Plan referred to in Article 3, paragraph 1, shall cease transmitting. Such stations may be brought into service again, subject to the necessary agreements.
4. This agreement shall remain in force until it is revised in accordance with Article 10.

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/30-E  
4 December 1984  
Original : French

PLENARY MEETING

New proposed version of Article 3  
of the Draft Agreement  
(see Doc. B.3(Rev.) p.4)

Content of the Plan

1. The Plan contains frequency assignments and associated characteristics of sound broadcasting stations in the band 87.5-108 MHz, coordinated either during the Conference or by the application of provisions contained in this Agreement, and comprises two parts.

1.1 The first part includes frequency assignments in the band 87.5 - 100 MHz for all countries in the planning area. The provisions of this Agreement are applicable to these assignments in the relations between all Contracting Members in the planning area. In the case of certain Contracting Members of Region 1, this part is intended to replace, when it is so decided by competent conferences, the corresponding sound broadcasting Plans appearing in the Regional Agreements, Stockholm (1961) and Geneva (1963).

1.2 The second part contains frequency assignments in the band 100 - 108 MHz for all countries in the planning area in order to permit all countries of Region 1 to use this band for sound broadcasting in conformity with No. 584 of the Radio Regulations. The provisions of this Agreement are applicable to these assignments in the relations between all Contracting Members in the planning area. In the absence of provisions applicable to all countries in Region 1, [to be adopted by a competent administrative radio conference,] non-Contracting Members in the planning area are being recommended to apply this procedure [until such a conference adopts provisions applicable to them] (see Recommendation COM5/A).

2. The Plan also includes, for a fixed term (see Article 6), a list of the assignments for which coordination still has to be effected; these assignments are listed in the appendix.

**CONFÉRENCE RÉGIONALE  
DE RADIODIFFUSION**

(SECONDE SESSION)

GENEVE, 1984

Document DL/31-F/E/S<sup>✓</sup>  
4 décembre 1984  
Original : anglais

SEANCE PLENIERE

TEXTE PROPOSE PAR UN NOUVEAU PARAGRAPHE 2.5  
DE L'ARTICLE 2

2.5 Les conditions de mise en oeuvre du Plan annexé à l'Accord, qui visent à assurer la protection des services permis, sont décrits dans les Résolutions COM5/1 et COM5/4.

PLENARY MEETING

PROPOSED TEXT FOR A NEW PARAGRAPH 2.5  
OF ARTICLE 2

2.5 The conditions of implementation of the Plan annexed to the Agreement aiming to assure the protection of permitted services are described in the Resolutions COM5/1 and COM5/4.

SESIÓN PLENARIA

TEXTO PROPUESTO PARA UN NUEVO PÁRRAFO 2.5  
DEL ARTÍCULO 2

2.5 Las condiciones de aplicación del Plan anexo al Acuerdo destinadas a asegurar la protección de los servicios permitidos, se describen en las Resoluciones COM5/1 y COM5/4.

# CONFÉRENCE RÉGIONALE DE RADIODIFFUSION

(SECONDE SESSION)

GENEVE, 1984

Document DL/32-F/E/S  
4 décembre 1984

## SEANCE PLENIERE

Remplacer la deuxième phrase du dernier alinéa du point 3.6.1 de l'Article 4 de l'Accord par:

"Le champ utilisable de référence d'une assignation à protéger est celui que résulte du Plan adopté par la Conférence, ou pour une assignation inscrite dans le Plan après la Conférence à la suite de l'application de cette procédure, celui qui résulte du Plan au moment de la première inscription de cette assignation dans le Plan."

## PLENARY MEETING

Replace the second sentence of the last paragraph of 3.6.1 of Article 4 of the Agreement by:

"The reference usable field strength of an assignment to be protected is the field strength which results from the Plan adopted by the Conference or, for an assignment entered in the Plan after the Conference following the application of this procedure, the field strength which results from the Plan at the time this assignment was first recorded in the Plan."

## SESIÓN PLENARIA

Sustitúyase la segunda frase del último párrafo del punto 3.6.1 del Artículo 4 del Acuerdo por:

"El campo utilizable de referencia de una asignación a proteger es el que resulta del Plan adoptado por la Conferencia o, para una asignación inscrita en el Plan después de la Conferencia como consecuencia de la aplicación de este procedimiento, el que resulta del Plan en el momento de la inscripción de esta asignación en el Plan."

**CONFÉRENCE RÉGIONALE  
DE RADIODIFFUSION**

(SECONDE SESSION)

GENEVE, 1984

Document DL/33-F  
2 décembre 1984  
Original : français

SEANCE PLENIERE

TEXTE PROPOSE POUR UN NOUVEAU PARAGRAPHE 2.3  
DE L'ARTICLE 5 DU PROJET D'ACCORD

2.3 Si, malgré l'application exhaustive des dispositions qui précèdent, les administrations concernées n'arrivent pas à un accord et si des émissions d'essais montrent qu'il existe effectivement un brouillage préjudiciable, la station de radiodiffusion sonore ne doit pas être mise en service.

PLENARY MEETING ✓

TEXT PROPOSED FOR A NEW PARAGRAPH 2.3  
OF ARTICLE 5 OF THE DRAFT AGREEMENT

2.3 If, despite the full application of the foregoing provisions, the administrations concerned fail to reach an agreement, and if test emissions show that harmful interference actually exists, the sound broadcasting station shall not be brought into service.

SESIÓN PLENARIA

TEXTO PROPUESTO PARA UN NUEVO PUNTO 2.3  
DEL ARTICULO 5 DEL PROYECTO DE ACUERDO

2.3 En caso de que, pese a la aplicación exhaustiva de las disposiciones que anteceden, las administraciones interesadas no llegaran a un acuerdo y que las transmisiones de prueba indicaran que existe efectivamente interferencia perjudicial, la estación de radiodifusión sonora no deberá ponerse en servicio.

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/34-E  
5 December 1984  
Original: French

PLENARY MEETING

Note by the Chairman of the Editorial Committee

TEXT PROPOSED TO COVER THE CASE OF TYPE B1 INTERFERENCE

UNDER SECTION 2.2 OF ARTICLE 5 OF THE AGREEMENT

Delete sections 2.2.4 to 2.2.6 of Document 220 (R.5) and replace them by the following text (section 2.2.6 of Document 220 becomes section 2.2.9 in this proposal):

2.2.4. The bringing into use of the assignment shall be conditional on experimental test transmissions being carried out with all the administrations concerned as indicated in sections 2.1.1 and 2.1.2 above.

2.2.5 The administration of the territory on which the aeronautical radionavigation station is operated shall verify the interference situation resulting from these experimental transmissions. If this administration finds that the level of interference exceeds the level indicated in Annex 2, Chapter 7, it shall immediately inform the administration of the territory on which the sound broadcasting station is to be operated.

2.2.6 The administration responsible for the sound broadcasting station which is to be brought into use shall immediately adopt appropriate measures to reduce the level of interference to the aeronautical radionavigation station to the level indicated in Annex 2, Chapter 7.

2.2.7 If this is insufficient, each administration designated after the second oblique stroke of symbol B2/.../... contributing to the interference shall reduce, in the direction of the test point considered, the effective radiated power of its sound broadcasting station contributing to the incompatibility, provided that it is able to do so without reducing its service area.

2.2.8 If this is insufficient, the administrations concerned shall take such appropriate measures as they may agree upon in order to avoid B1 interference.

2.2.9 In the event of disagreement (see section 2.2.6 of Document 220).

2.2.10 If, despite the full application of the foregoing provisions, the administrations concerned fail to reach agreement and if the experimental test transmissions show that the operation of the sound broadcasting transmitters effectively contributes to harmful interference to the aeronautical radionavigation station, two alternatives may be considered:

- a) if the sound broadcasting stations all belong to the same administration, this administration shall decide which of the stations shall not operate. However, the status of this assignment, although not in use, shall be maintained with regard to all other assignments in the Plan;

- b) if the sound broadcasting stations belong to different administrations, the sound broadcasting station whose assignment is to be brought into use shall not be brought into service. However, the status of this assignment, although not in use, shall be maintained with regard to all other assignments in the Plan.
-

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/35-E  
5 December 1984  
Original: English

PLENARY MEETING

Note from the ad hoc Group of the Plenary

PROPOSED TEXT FOR A NEW PARAGRAPH 2.2.6bis  
OF ARTICLE 2 OF THE AGREEMENT

2.2.6bis If, despite the full application of the foregoing provisions, the administrations concerned fail to reach an agreement, the bringing into use of any sound broadcasting assignment contributing to the interference shall be subjected to experimental test transmissions to be carried out as indicated in sections 2.1.1 to 2.1.3 above.

If the experimental test transmissions show that the operation of the broadcasting assignment under test will give rise to a level of interference to the aeronautical radionavigation station concerned in excess of that indicated in Annex 2, Chapter 7, the administration responsible for the sound broadcasting assignment shall immediately adopt appropriate measures to reduce the interference to the aeronautical radionavigation station to or below the level indicated in Annex 2, Chapter 7. If this is not possible, the sound broadcasting assignment under test shall not be brought into use; however, the status of this assignment, although not in use, shall be maintained with regard to all assignments contained in the Plan.

**CONFÉRENCE RÉGIONALE  
DE RADIODIFFUSION**

(SECONDE SESSION)

GENEVE, 1984

Addendum 1 ✓  
Document DL/36-E/F/S  
6 décembre 1984

Note du Secrétaire général

ANNEXE 2

Reviser l'Accord de Genève (1963) afin de supprimer les parties de l'Accord relatif à la radiodiffusion sonore dans la bande 87,5-100 MHz qui seront remplacées par l'Accord de Genève, 1984.

Note by the Secretary-General

ANNEX 2

To revise the Geneva Agreement (1963) in order to suppress those parts of the Agreement relating to sound broadcasting stations in the band 87.5 - 100 MHz which will be replaced by the Geneva 1984 Agreement.

Nota del Secretario General

ANEXO 2

Revisar el Acuerdo de Ginebra (1963) con el fin de suprimir las partes del Acuerdo relativo a la radiodifusión sonora en la banda 87,5-100 MHz que serán sustituidas por el Acuerdo de Ginebra de 1984.

R.E. BUTLER

Secrétaire général

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/36  
6 December 1984  
Original : English

---

Note by the Secretary-General

Following discussions in the Plenary on Document 216 concerning the proposed Agenda for a Regional Administrative Radio Conference of the Members of the Union in the European Area, the following suggestions are put forward :

Agenda

To revise the Stockholm Agreement (1961) in order to :

1. suppress those parts of the Agreement relating to sound broadcasting in the band 87.5 - 100 MHz which will be replaced by the Geneva 1984 Agreement;
2. revise, as necessary, those procedural provisions contained in the Agreement itself and applicable to television stations in the band 87.5 - 100 MHz, in order to take account of sound broadcasting stations in the same band now covered by the Geneva 1984 Agreement.

R.E. BUTLER  
Secretary-General

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/37-E  
6 December 1984  
Original: English

PLENARY MEETING

ANNEX I

SYMBOLS TO BE ADDED IN DOCUMENT 241

Meaning of the symbols in the "Remarks" Column

7. The Libyan Administration does not agree to the coordinates of this assignment, because it is in Libyan territory.
8. The Libyan Administration may, in principle, change the ratio between the vertical and the horizontal polarization components as a result of experiments to be carried out on the site.
9. The Chad delegation does not agree to the coordinates of this assignment, because it is in Chadian territory.
10. The bringing into use of this assignment is subject to the Agreement of the administrations of the countries entered after this symbol. Agreement relates to the reduction of radiation in the direction of these countries. Pending such agreements, the usable field strength of the assignments concerned of these countries will be calculated using a nuisance field originating in this assignment, equal to  $\sqrt{\quad}$  that reduced from the e.r.p. given in column  $\sqrt{10}$  to  $\sqrt{\quad}$  to 60 dB( $\mu$ V/m)  $\sqrt{\quad}$ .
11. The bringing into use of this assignment shall be subject to an agreement with the administrations of the countries whose name appears after the symbol.
12. Agreement to carry out tests in order to determine the acceptable increase in power in relation to the characteristics given in the Plan, for the sector 300° to 340° between Belgium and Luxembourg and for the sector 120° to 140° between France and Luxembourg.



**Documents of the Regional Administrative Conference for FM Sound Broadcasting in the VHF band  
(Region 1 and certain countries concerned in Region 3) (2nd session) (Geneva, 1984)**

**Document DL No. 38**

**Not available**

\*\*\*\*\*

**Pas disponible**

\*\*\*\*\*

**No disponible**

INTERNATIONAL TELECOMMUNICATION UNION  
**REGIONAL BROADCASTING  
CONFERENCE**

(SECOND SESSION)

GENEVA, 1984

Document DL/39-E  
6 December 1984  
Original: English

PLENARY MEETING

PREFACE TO THE PLAN

Insert the following text after the column numbers:

"The above information from column 1 to column 19 is an integral part of the Plan. When limits are indicated in columns 15 and 16, the related information indicated in column 19 shall be within these limits.

The antenna diagram may be modified within the sector indicated in column 15 provided the attenuation indicated in column 16 is exceeded.

Outside the sector indicated in column 15 and in cases where there is no limitation in this column, the antenna diagram can be modified only by applying the procedure in Article 4."