

Journal Title: Telecommunication Journal

Journal Issue: vol. 52 (no. 5), 1985

# Article Title: Results of the Regional Administrative Conference for the planning of the VHF sound broadcasting (Region 1 and part of Region 3)

Author: Marie Huet

Page number(s): pp. 290-297

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.

## **Results of the Regional Administrative Conference** for the planning of the VHF sound broadcasting (Region 1 and part of Region 3)

by Marie HUET Deputy-Director Traffic and Frequency Department *Télédiffusion de France* 



#### ABSTRACT

The Second Session of the Regional Administrative Conference for FM sound broadcasting in the VHF band (Region 1 and certain countries in Region 3) held in Geneva from 29 October to 7 December 1984 was responsible for establishing an agreement and an associated plan for sound broadcasting stations in the band 87.5-108 MHz for all the countries of Region 1 and for part of Region 3 (Afghanistan and the Islamic Republic of Iran). Under its agenda, the Conference had to consider the need to ensure appropriate protection for the stations of the aeronautical radionavigation service in the adjacent band 108-117.975 MHz, as well as to adopt transitional procedure for the bringing into service of stations in the Plan to enable the proper operation of the other services using the band 87.5-108 MHz on a permitted basis.

#### 1. Establishment of the Plan

#### 1.1 Notification of requirements

It had been established at the First Session of the Conference that the countries would notify the International Frequency Registration Board (IFRB) of their requirements for sound broadcasting by 1 February 1984 to allow an initial analysis to be sent to administrations before the start of the Conference. If they so wished, administrations might also indicate the characteristics of their stations in the aeronautical radionavigation service, in the band 108-117.975 MHz, which they wished to protect. On the other hand, given the definition of the primary and permitted services, it was decided at the First Session that the Conference would not take account of permitted services in the planning process.

The First Session had likewise instructed the IFRB to include data for countries which failed to indicate their requirements. This was necessary in order to obtain a Plan which would subsequently ensure satisfactory use of the band by all administrations; moreover, No. 584 of the Radio Regulations stipulates that broadcasting stations in the section 100-108 MHz of the band may be established and operated only in accordance with the Plan and the Agreement to be prepared by the Conference.

Seventy-eight of the 102 countries within the planning area notified their requirements, and 76 took part in the Conference. However, a number of requests reached the IFRB late and, in keeping with the standard practice at planning conferences, a deadline had to be fixed for the submission of requirements; the date decided upon for this purpose was 2 November 1984. At that stage, there were 52 889 requests to be processed.

#### 1.2 Organization of the planning work

This mass of data raised a problem for both administrations and the IFRB. To facilitate co-ordination between countries, four Planning Groups representing geographical areas in which problems of interference affected several countries, were set up during the Conference, thus calling for multilateral discussions. Since these areas did not always coincide with national frontiers, some countries had to participate in more than one Group, which complicated the task of a number of delegations; however, the method proved effective. Figure 1 shows how the countries were distributed among the four Planning Groups. These Groups were split up in the same way into Sub-Groups, with the exception of that incorporating the countries in the area extending from the Shatt-al-Arab to the Gulf of Oman. The intense superrefractivity conditions encountered above the sea and along the cost in this region, for which the propagation data could not be established until the beginning of the Second Session of the Conference, created serious co-ordination difficulties for the countries of the area: these difficulties meant adopting particular planning principles for all stations



located at a distance of less than 50 km from the coast (figure 2) as well as examining numerous planning exercises carried out with special assistance from the IFRB. The super-refractivity conditions also encountered in certain areas of the eastern Mediterranean likewise entailed planning difficulties. However, since these phenomena are limited in extent in this region, they were not taken into account systematically for calculation purposes; difficult paths were subjected to special study by the countries concerned.

In eastern Europe, the coexistence in adjacent areas of sound- and televisionbroadcasting stations operating in the band 87.5-100 MHz is a result of the application of the Stockholm Agreement (1961). Since television stations must continue to be protected, it is virtually impossible to modify the characteristics of the sound-broadcasting stations which are located within their coordination area. In view of this situation, the First Session of the Conference recognized that these sound-broadcasting stations should be protected (with their existing characteristics) against other sound-broadcasting stations in the planning process; it instructed the IFRB to publish the list of stations concerned and to perform for both the televisionand sound-broadcasting stations the interference calculations reflecting the situation which derives from the implementation of the Stockholm Agreement at 1 December 1983. The Second Session was thus provided with data relating to this "reference situation" and was able to use them for negotiations in cases where television stations were involved. Sound-broadcasting stations contained in the "reference list" were automatically included in the Plan. However, a problem arose in connection with television stations which are located to the east of the European Broadcasting Area and which are not covered by the Stockholm Agreement. No provision was made to meet this case, which was not even referred to in the Conference agenda, so that television/sound-broadcasting compatibility problems were dealt with between, and on the basis of criteria established by, the administrations concerned. A Recommendation contained in the Final Acts encourages the administrations concerned to pursue co-ordination with a view to finding a satisfactory solution in cases where agreements remain to be concluded.

As in the previous planning conferences, the IFRB safeguarded the interests of absent countries.

### 1.3 Processing of requirements during the Conference

To process the very large number of data included, it was necessary to adopt an



#### Figure 2

information communication system which should not produce an excessive workload. For this purpose, the system established was based on the processing of forms in which administrations entered foreign stations against which they had objections. About 23 000 objections were thus presented. On the basis of these forms, the IFRB published for each administration notices designated "Form 2" (see figure 3) showing for each station the names of the countries which had raised objections to the stations of the administration concerned and with which negotiations therefore had to be conducted.

When an agreement was achieved, the form signed by the objecting administration and by the Chairman of the Planning Group concerned (and accompanied, if appropriate, by a form of modi-

01/12/84	FORMULAIRE	2/FORM 2/FOR	PMULARIO 2	- VER.4		#	748	
	STATION POUR STATION FOR ESTACION PARA	LAQUELLE UN A WHICH AN AGRE LA QUE UN AG	ACCORD EST EEMENT IS I CUERDO ES I	NECESSA NECESSAR NECESSAR	IRE Y IO		1	
SER. IFRB	ADM.	STAT	ION/ESTACI	ON		FREQ./F	REC.	
00175102	D	SAAR	BUR G			104.6	00	
	A	C C OR D / A GREEMI	ENT/ACUERD	0				
ADM. SIGN./F	218MA DATE/FECH. 2.112/84	a azim.1 az <i>145</i> ° 2	21M_2 AF_// 220° 10	ат.(DB) Э <b>с((</b>	RE	м./овs. <b>Л</b>		Figu stati
001 02883303	[01] S [14] 10	0.400 [03] S	[02] KAR	LSHAMN		[07] H [	113 4 [	613 7
C00J C01J 1921502 POL 2878203 S 0387701 POL 2983201 NOR 3241302 DNK 0183501 D	1 [14] [03] - 100.300 POL 100.300 S - 100.500 POL R 100.400 NOR K 100.500 DNK 100.400 D	L02 SZCZECIN SKOEVDE LEBA SKIEN FYN HEIDE		[65] 65.7 63.5 62.0 56.6 55.7 55.3	C66J 001 166 318 136 067 055	[67] 323 250 243 450 289 417	681 87 86 21 12 36	[69] + 330 + 404 + 100 + 494 + 219 + 203
[00] [01] 3286402 DNK 0387701 POL 2973803 S	[14] [03] 100.300 DNK HAM 100.500 POL LEB 100.200 S KIV	CO2) MEREN A IK-LO	[72] 85.2 69.7 69.3	[73] 182 136 212	0192 0192 0190	00] [0] 21502 PC 06202 PC 13802 PC	) [14 )L 100 )L 100 )L 100	1 CO 300 P 400 P 400 P

Figure 3—Form used for co-ordination of stations

6.2 [63] 70.2

[11]

CO23 SZCZECIN NOWE MIASTO LUB POZNAN MIASTO C743 12

[70] 17.78 17.78 10.00 14.60 14.78 11.76

[64] 77.0

[72] [73] 62.6 181 60.9 135 59.7 162 181 135 162

[71]

77.4 [62]

C 031 POL POL POL

[07]

ННННН

Figure 4	-Sample	calculation	of interference	hetween	sound-broadcasting stations	
LIGUIC T	Sumple	cuiculullon	of interference	Derween	sound-broudcusting stations	

interference caused to a sound broadcasting station

ns was adopted at the h

													#00109
[00] 02997102	[ 01] NOR NOR	[14] 88.200 88.200	C 0 3 J NOR NOR	[ 02] VARANGER VARANGER		030E08 030E08	69N45 69N45		[69] +150 +277	[07] H H	[1]] 1 4	[70] 14.80 14.77	[7]]
design ordered	illian.			And a second sec	[04]	029E45	70N05	AND LEVE	[64r]	55.8	a de la composición de la composicinde la composición de la composición de la composición de la compos	[64] 58.4	n.
[00] 02994302 01676502 01673002 60036502 60006301 01679502	[01] NOR FNL FNL URS URS FNL	[14] 88.200 88.200 88.400 85.240 85.260 88.100	[ 03] NOR FNL FNL URS URS FNL	C023 TROLLTIND ROVANIEMI INARI PETCHENGA LOVOZERO NUVVUS	i fhe i ordere Apple sciordi	[65] 54.6 41.6 40.5 37.2 36.1 32.3	C661 085 022 035 318 320 076	[67] 353 428 171 88 309 135	C 6 9 J + 672 + 270 + 350 + 100 + 100 + 300	C 0 7 J H H H V H H	[11] 4 4 4 9 9 9	[70] 16.46 14.77 16.99 15.40 -13.01	[71] -10.00
					[04]	031E10	70N20		[64r]	51.2		[64] 62.4	
[00] 02994302 01676502 01673002 10797002 60036502 02847103	[01] NOR FNL FNL NOR URS S	[14] 88.200 88.200 88.400 87.900 85.240 88.300	L 0 3 J NOR FNL FNL NOR URS S	C02J TROLLTIND ROVANIEMI INARI VARDO PETCHENGA GAELLIVARE		[65] 53.8 50.8 49.2 44.2 39.6 37.0	[66] 081 026 042 121 358 045	[67] 405 478 227 14 93 556	E69J +636 +270. +350 +200 +100 +475	[07] Н Н Н Ч Н Ч	[11] 4 4 4 9 4	[70] 16.91 14.77 16.99 -10.97 17.78	[71] -10.00
[ 00 ] 6 0 0 0 3 0 1	e causec [01] HNG HNG	[14] [14] [14] [14] [14] [14] [14] [14]	SION STAT	LION LO2J TOKAJ TOKAJ		[0 021E23 021E23	41 48N07 48N07		[69] +335 +335	C 0 7 J H H	[11] 9 9	[70] 19.00 19.00	#00098 [71]
Todexillo	101 (130)	NOD WITH	e) trang	WAREN COMPANY	[04]	021E23	48N34		[64r]	82.3	torn y	[64] 129.3	CHANGE OF THE
[00] 03295003 00204101 01920802 00192501 00191901 00202801	C01J HNG TCH POL TCH TCH TCH	[14] 90.200 89.200 90.000 88.800 89.800 88.500	C 0 3 J HNG TCH POL TCH TCH TCH	LO23 TELKIBANYA TREBISOV SZCZAWNICA BARDEJOV BANSKA BYSTRICA SNINA		[65] 128.8 105.5 93.2 92.9 91.6 90.9	[66] 037 255 149 173 095 231	[67] 7 36 116 88 176 77	[69] +80 +105 +788 +420 +790 +384	С 07 Ј Н Н Н Н Н Н	[1]] 5 4 4 4 4 4 4 4	t701 -0.54 10.00 10.00 10.00 20.00 10.00	[71]
					[04]	021E39	48N26	HAND TO	[64r]	83.4		[64] 137.0	
[00] 03293802 03295003 00204101 00202801 00191901 03286801	C 01) HNG HNG TCH TCH TCH HNG	[14] 90.600 90.200 89.200 88.500 89.800 89.500	C 0 3 1 HNG HNG TCH TCH TCH HNG	CO2J SATORALJAUJHELY TELKIBANYA TREBISOV SMINA BANSKA BYSTRICA BUDAPEST		[65] 136.3 115.4 110.4 89.9 88.8 88.5	[66] 065 112 212 213 099 061	[67] 4 24 28 75 198 224	[69] +150 +283 +105 +328 +790 +455	C 0 7 J H H H H H H	[11] 5 5 4 4 4 4 5	[70] 0.00 4.77 10.00 10.00 20.00 20.00	[71]

Figure 5—Sample (limited to 2 test points) calculation of interference between sound-broadcasting and television stations

fication of characteristics) was transmitted to the IFRB; in cases where an agreement entailed a chain of modifications not requiring co-ordination with neighbouring countries, a modification form was also communicated to the IFRB after checking by the Chairman of the Planning Group. This made it possible gradually to correct the initial list of the data file, thus avoiding the need to process a great volume of data during the final days of the Conference. The checking of the data was thus facilitated and only a few material errors were detected during the reading of the Plan, despite the fact that the IFRB had had to process around 19 000 modifications representing more than 15 000 agreements.

Furthermore, it was essential that delegations should be able to keep abreast of the progress achieved and of the modifications made to the initial requirements. For this purpose, a timetable showing the deadlines for transmission of modification forms to the IFRB and for the communication of analyses to administrations was adopted at the beginning of the Conference. The dates established were subsequently only slightly changed and the overall organization remained the same. This involved, in addition to the initial analysis, three overall Plan analyses in the course of the Conference. Each country received on microfiches an analysis of the complete Plan and, in printed form, an analysis of the situation of its own stations. For the assessment of interference between sound-broadcasting stations, the information supplied by the analysis (figure 4) indicated for each assignment the six most interfering stations (with a number of particulars such as interference field, distance and azimuth referred to the station suffering interference, sea path percentage, usable field strength of the station suffering interference) and the six stations to which it caused most interference (with the value of the interference field produced). Similar information (figure 5) but restricted to the interference suffered by the station under consideration was supplied for interference between sound- and television-broadcasting stations but, whereas the interference between sound-broadcasting stations alone was calculated at the transmitter site concerned, interference with respect to television stations was measured at a number of test points indicated by the administrations affected.

Although reduced in number, these analyses constituted not only a heavy workload for data capture and checking but also a large number of computer hours since, for each analysis, the calculation of interference between soundbroadcasting stations alone accounted for about 18 operating hours of the ITU's fastest computer, while the calculation of interference between sound-broadcasting and television stations took about 7 hours. The calculations relating to incompatibilities between soundbroadcasting and aeronautical radionavigation stations brought into play both ITU computers and required more than 36 computation hours.

A number of requirements, relating generally to low-power stations, had been submitted without any mention of frequency. To assist in the solution of these cases, the usable field strength at the transmitter site was calculated for all frequencies in the band 87.5-108 MHz, the result being presented in graph form (figure 6) so that the most suitable frequency or frequencies could readily be identified. Three thousand diagrams were plotted during the Conference (requiring 240 computer hours); as a



sector and the sector of the s

Figure 6—Sample graph for calculation of usable field for seeking a frequency

result, practically all problems were solved, since by the end of the Conference only 39 stations remained for which no frequency had been found. The IFRB was instructed to continue its efforts to ensure that a frequency should be assigned to these stations, after co-ordination between countries, if necessary.

To assist in the co-ordination process, computer terminals for case-by-case calculations had been made available to the delegates.

#### 1.4 Results achieved

It was feared in the first weeks of the Conference that a large number of incompatibilities would prove intractable, but the negotiations between delegations, which continued practically up to the reading of the Plan, led to the conclusion of numerous agreements. The Plan established at the end of the Conference contains 51740 stations, and only 1429 unresolved cases remain, contained in an Appendix to the Plan. However, these figures are not final, since the Conference decided to include in the Plan those stations listed in the Appendix which do not cause a level of nuisance field (interference field plus protection ratio) above 60 dB ( $\mu$ V/m) at the location of the station suffering interference. The IFRB was therefore requested to carry out the necessary calculations as soon as possible and to transfer to the Plan all stations meeting this condition.

To enable the administrations to continue any negotiations initiated during the Conference but not yet completed, it was decided (Article 6 of the Agreement) that the stations in the Appendix on which agreement was reached before 1 July 1992 (and in exceptional cases before 31 December 1993) would be transferred to the Plan. After that date, the Appendix would be considered inoperative. In the meantime, stations listed in the Appendix enjoy the same protection as those recorded in the Plan.

### 1.5 Compatibility with aeronautical radionavigation stations

To deal with the problems of compatibility of sound-broadcasting stations with those of the aeronautical radionavigation service in the band 108-117.975 MHz, the First Session of the Conference had adopted provisional protection criteria and a calculation method for evaluating incompatibilities. To enable the Second Session to adopt final criteria, the International Radio Consultative Committee (CCIR) had been requested to conduct additional studies on airborne receiver immunity and on the level of spurious emissions from broadcasting transmitters. These two subjects were investigated in the intersessional period by a CCIR Joint Interim Working Party whose findings were submitted to the Second Session. After the Working Party had completed its work, a number of administrations continued their studies and also submitted their findings to the Conference. The technical data adopted by the Second Session for evaluating compatibility between broadcasting and aeronautical radionavigation stations are derived from all the above studies. Among the possibilities open to it, the Conference opted for the values or formulas which provided the greatest level of protection to the aeronautical radionavigation service. Nevertheless, it was acknowledged that refinement of some of the criteria would facilitate the implementation of the Plan (and any modifications to it), and the Conference adopted a Recommendation requesting the CCIR and the International Civil Aviation Organization (ICAO) to study existing and future airborne receivers.

The First Session had adopted the values of spurious emissions from broadcasting transmitters given in Appendix 8 to the Radio Regulations. However, the CCIR studies had revealed that most broadcasting transmitters in fact produce spurious emission values considerably lower than the limit set in the Radio Regulations. These lower values, which vary according to transmitter power, were adopted by the Conference, which issued a Recommendation to the effect that a future world radio conference should be instructed to amend Appendix 8 of the Radio Regulations accordingly for sound-broadcasting transmitters operating in the band 87.5-108 MHz.

Whereas it modified the compatibility criteria, the Conference on the other hand retained the calculation method adopted by the First Session, even though a number of delegations held that the method of calculating incompatibilities between broadcasting and aeronautical radionavigation stations did not produce an accurate assessment of the likelihood of interference, particularly in the case of VOR (very high frequency omnidirectional radio range). However, the agenda of the Second Session made no provision for the adoption of a different method and in any case it would have been impossible to develop the appropriate computer programs within the duration of the Conference.

The calculations performed during the Second Session covered about 2500 aeronautical radionavigation stations, indicating for each of them and for each type of interference (A1, A2, B1, B2) the broadcasting stations concerned. Figures 7 and 8 show examples of incompatibility calculations for type A1 and B1 interference, respectively. In general, due to shortage of time and in view of the complexity of the problem which arises when several broadcasting stations contribute to the same interference (since every change in the frequency of a broadcasting station entails other changes), the delegations in Geneva were unable to resolve incompatibilities between broadcasting and aeronautical radionavigation stations. It was thus decided to include provisions in the Agreement to protect the aeronautical radionavigation service and to indicate in the Plan, against each broadcasting station concerned, the interference (together with the type) it might cause to a given aeronautical radionavigation station. These indications will however only be provided when the interference hazard stems from stations of different countries (unless administrations specifically request an indication in the Plan of risks of interference between stations in their own country).

### 2. Regulatory provisions of the Final Acts

The main provisions of the Agreement relate to modifications to the Plan and the bringing of stations into service.

#### 2.1 Modifications to the Plan

The procedure for modifying the Plan retained the principle adopted in the Stockholm 1961 and Geneva 1963 Agreements whereby administrations of neighbouring countries are consulted when the broadcasting station to be established or modified does not comply with certain set limits. These limits were calculated to protect not only the soundbroadcasting stations listed in the Plan (including its Appendix until 1 July 1992 or exceptionally until 31 December 1993) but also the other services using the band 87.5-108 MHz on a permanent or temporary basis as well as the aeronautical radionavigation service operating in the band 108-117.975 MHz. They take the form of distances between the sound-broadcasting station and the nearest point on the border, except for protection of the fixed and mobile services where they are expressed as a field strength produced at the border by the sound-broadcasting station.

Administrations shall in all cases check whether these limits are attained with regard to sound-broadcasting and aeronautical radionavigation. Moreover, depending on the frequency planned for the sound-broadcasting station, they shall also ascertain whether co-ordination should be effected:



Figure 8—Sample calculation for B1 type interference

296 TELECOMMUNICATION JOURNAL - VOL. 52 - V/1985

- between 87.5 and 88 MHz with respect to the land mobile service in Region 1;
- between 87.5 and 100 MHz with respect to television stations in accordance with the Stockholm Agreement (1961);
- between 87.5 and 100 MHz with respect to the fixed and mobile services in Region 3;
- between 104 and 108 MHz with respect to the fixed and mobile (except aeronautical (R) mobile) services in Region 1.

Co-ordination, when necessary, is effected through the IFRB, although administrations are urged to obtain the agreement of the other administrations concerned directly whenever possible. Deadlines for reply were set. To avoid unjustified refusals, the Agreement specifies, for each service concerned, values of usable field strength or interfering field strength which the administration consulted should normally accept.

Since the Agreement does not come into force until 1 July 1987, it was thought that some administrations might be prompted to modify the characteristics of stations in the Plan or add new stations before that date. The Conference therefore adopted a Resolution requesting the administrations to apply in such cases the procedure for modification of the Plan contained in the Agreement; stations thus co-ordinated will be included in the Plan on the date of its entry into force.

### 2.2 Bringing into service of stations in the Plan

The Agreement will enter into force on 1 July 1987. Meanwhile, administrations may bring the stations in the Plan into service by applying a simplified consultation procedure.

However, whatever their intended date of bringing into service, the stations indicated in the Plan as capable of causing interference to aeronautical radionavigation stations will have to apply the procedure laid down in the Agreement to guarantee protection of such stations. The procedure provides for test transmissions to ascertain whether or not any interference is caused. If interference occurs, it is up to the administration responsible for the broadcasting station to take the necessary steps to eliminate it. If this proves impossible, the soundbroadcasting station must not be brought into service. The provisions of the Agreement are relatively simple for type A1, A2 or B2 interference, which is generally caused by a single broadcasting station, whereas for type B1 interference, where several broadcasting stations are involved, the problems will in most cases not be solved until consultations have taken place between all the administrations concerned.

The bringing into service of broadcasting stations in the parts of the band shared with permitted services (fixed and mobile) is also subject to particular provisions which are not included in the Agreement itself but are rather, as they are not final, contained in Resolutions.

• In the band portion 87.5-88 MHz, the mobile service is still used relatively little since this allocation was made by the World Administrative Radio Conference (WARC-79). It was thus only necessary to set a deadline for the changes in frequency of the existing broadcasting and mobile service stations in order to produce the situation matching that of the Plan as quickly as possible to enable the mobile service to develop with a full knowledge of the constraints to be reserved in order not to disturb broadcasting stations. This deadline was set at 31 December 1990.

• In the band portion 104-108 MHz, the opposite situation arises, since the fixed and mobile (except aeronautical (R) mobile) services must cease operating on a permitted basis on 31 December 1995. In view of the widely differing conditions of use of these services from country to country, the Conference was unable to adopt general provisions to permit normal operation, as specified in the agenda. It was thought that the retention of these services should not inhibit the gradual implementation of the Plan and the administrations concerned were requested in a Resolution to conclude appropriate agreements among themselves. Such an agreement already existed for the land mobile service in the United Kingdom in the band 97.6-102.1 MHz (No. 582 of the Radio Regulations), which explains why this band is not mentioned in the Final Acts.

### 3. Partial abrogation of the Stockholm (1961) and Geneva (1963) Agreements

The provisions of the Geneva (1984) Agreement can only be implemented if no other conflicting provisions exist. Due to a regrettable oversight, the Conference agenda did not authorize it to abrogate the parts of the Stockholm (1961) and Geneva (1963) Agreements and associated Plans which currently govern the use of the band 87.5-100 MHz for sound broadcasting in the European and African Broadcasting Areas. The Conference discussed at length how it might effect such abrogations in Geneva, but it emerged that the only legally unimpeachable solution would be to hold two short conferences (one European, one African) for that specific purpose. The solution advocated by the Conference is to hold these two Conferences at the beginning of the First Session of the World Administrative Radio Conference on the use of the geostationary-satellite orbit and the planning of the space services utilizing it—ORB(1), in August 1985. Under Articles 62 and 63 of the Nairobi Convention, the Conference instructed the Secretary-General of the ITU to arrange for the consultation of the Members of the Union concerned.

#### 4. Conclusion

During the six weeks of its duration, the Conference was confronted by difficult problems which would not have found solutions without the thorough preparations made by the First Session, coupled with the additional intersessional work carried out by both the administrations and the IFRB. There were a large number of stations to plan, which called for rigorous organization and intensive use of ITU computer resources. The Plan established in Geneva is scarcely comparable with the previous Plans of Stockholm (1961) and Geneva (1963), since the upper band limit was 108 MHz instead of 100 and the planning area was much greater, covering the whole of Region 1 and a small part of Region 3. When the Conference opened, the Stockholm Plan, modified by the application of the provisions of the Agreement for bringing new stations into service, contained just over 10 000 stations (about a third of them with an e.r.p. (effective radiated power) of 1 kW or more, with some 5000 assignments for the African Broadcasting Area (including only 300 lowpower stations). Fifty-two thousand and five hundred stations were planned in Geneva, 35 500 of them with an e.r.p. of less than 1 kW. A comparison of these figures reveals the volume of work successfully accomplised in Geneva. The Conference had also to cope with new questions such as compatibility between sound-broadcasting and aeronautical radionavigation stations and conditions for simultaneous operation, for a given period, of stations of a primary service and of permitted services. The Final Acts prove that the Conference successfully performed the tasks assigned to it; the scope of the work carried out can be measured by the fact that it is thought that the Agreement and associated Plan may meet sound-broadcasting requirements in the 87.5-108 MHz for 20 years to come.

(Original language: French)