

On 24 September 1979, the World Administrative Radio Conference (WARC) opened in Geneva, a conference which in ten weeks is to revise, bring up to date and harmonize the Radio Regulations drawn up by a similar conference in 1959.

With its 1800 participants, its 14 000 proposals amounting to nearly 5000 pages and co-ordinated documentation in several volumes totalling nearly 3000 pages, no terms seem to be adequate to designate the largest conference ever organized under the auspices of the ITU.

It is no exaggeration to assert that this Conference will establish the framework that will regulate radiocommunications up to the year 2000. Moreover, since its task is to seek an equitable balance between everyone's most immediate needs and the long-term requirements of all services which will become operational during the next two decades, it will influence the planning and utilization of services well beyond the year 2000.

In our times, radio still seems, as it did in the beginning, to be one of the happiest and most productive discoveries of all ages. As we approach the year 2000 and an era when telecommunications, closely linked with computer science, will occupy a preponderant place in society, it is brought home to us that, from the dawn of the 20th century, radiocommunications have constituted a decisive factor in the prodigious development of the world. Have they not from the outset put an end to the isolation of seamen and of the most distant regions and, through broadcasting, have they not proved to be the most powerful of the mass communication media?

Unfortunately, we are all aware that the marvellous opportunities they offer us are dependent upon a frequency spectrum which is still limited, although its upper limit is constantly expanding as the result of technological advances.

It was very soon observed not only that radio waves knew no frontiers, but also that they were propagated over very long distances and could thus cause harmful interference. Radiocommunications therefore represent an area of activity in which the major problems could only be dealt with at the world level. There are, of course, specific requirements, regional and even national ,and their disparity has led to the division of the world into three regions for the purposes of the Radio Regulations and particularly to a proliferation of "footnotes" in the Table of Frequency Allocations.

These footnotes result in a less satisfactory use of the spectrum and introduce additional complications for frequency planning and co-ordination and for the standardization of equipment. It is therefore to be hoped that WARC-79 will make every effort to get rid of as many of them as possible.

Thus the Radio Regulations have not been revised in their entirety for twenty years. The mere fact that the Tabie of Frequency Allocations to the various services has not been reviewed as a whole since 1959 emphasizes the importance attached to this Conference.

A great deal has happened in the past twenty years. First of all, technology has made giant strides: in 1959 there was hardly any mention of large-scale integrated circuits and satellites were mainly for research. Moreover, for lack of suitable equipment, frequencies above a few gigahertz were scarcely used, and optical waves even less.

During those twenty years some far-reaching political events have also occurred. In 1959, the Union had only 96 Members and 5 Associate Members, some of them not yet fully independent. Today the membership is 154, making an increase of over 60%. The Union is thus faced with new obligations, especially since telecommunications are increasingly becoming the cornerstone of a country's infrastructure and consequently determine the success of national development as a whole. In many countries, radiocommunications of all kinds can be brought into operation more rapidly than any other methods of transmission and can be maintained more easily.

Referring to the International Telecommunication Convention, which remains our guide, we find in Article 33 two basic provisions ** which have to be borne in mind.

It is also important to take longer-term interests into consideration, by ensuring the allocation of adequate frequency bands to the various services and by adopting provisions whereby countries which are not in a position to do so today may, in the more or less distant future and at a time they consider appropriate, introduce new services to meet their national or international requirements. In such cases, they should be able to do so without giving rise to congestion or causing interference for the users of other services.

The agenda of the Conference contains two innovations in items ten and eleven.

Item ten implies that the Conference will be in a position to draw up a calendar of conferences dealing with specific services and provide guide-lines for the technical preparations for such conferences.

Item eleven emphasizes the importance of technical studies in the preparations for administrative conferences. It is thanks to these studies that radiocommunications have been able to expand their potential in quality and quantity since the beginning of the century. This perpetual race between demands on the spectrum and its capacity calls for increasingly elaborate technical measures. For many years, progress was made only with regard to a few specific technical points, such as propagation and modulation, and to equipment, particularly antennae. But now all the characteristics have to be considered together with a view to reaching the optimal solution, that is to say, maximum utilization of every band in the spectrum.

M. MILI

This editorial is based on extracts from Mr. M. Mili's address to the inaugural meeting of the World Administrative Radio Conference (Geneva, 1979).

^{**} Article 33, numbers 130 and 131.

Union Activities

World Administrative Radio Conference 1979

The inaugural ceremony of the World Administrative Radio Conference (WARC-79) took place on 27 September 1979 at the Geneva International Conference Centre (CICG).

The Conference had begun its work on 24 September with a meeting of Heads of Delegations under the chairmanship of Mr. Per Mortensen (Norway).

The Conference, organized by the International Telecommunication Union, will deliberate for ten weeks. In addition to the 147 delegations which announced their participation, 38 international organiza-



General view of the Conference

tions will be sending observers to the Conference

The Conference elected Mr. Roberto J. P. Severini (Argentina) as Chairman. The Vice-Chairmen elected were Messrs A. L. Badalov (USSR), J. Jipguep (Cameroon), H. Kieffer (Switzerland), Linchuan Li (China), A. Petti (Italy) and G. O. Robinson (United States).

The purpose of WARC-79 is to revise, harmonize and bring up to date the international regulations applicable to all radiocommunication services. It is a governmental conference whose decisions have the force of a treaty.

WARC-79 is undoubtedly the most important Radio Conference since the 1959 Geneva Radio Conference which was the last Conference to make a general revision of the Radio Regulations. Since that time, specialized world conferences have met to take account of new technical developments and new frequency requirements for each particular radio service: the service using space techniques, the maritime mobile, aeronautical mobile, sound and television broadcasting and direct satellite broadcasting services.

The international regulations revised by WARC-79 will in all likelihood remain in force until the year 2000 and perhaps even longer. In other words, they will have a decisive influence on the development of all types of telecommunications right into the 21st century.

Further reports on WARC-79 will be published in the coming months.



World Administrative Radio Conference 1979

The World Administrative Radio Conference (WARC-79) began its work on 24 September 1979. Some 2000 delegates and observers from 139 countries and some 38 international organizations are taking part in the Conference.

At its first plenary meeting, the Conference set up nine Committees:

□ Committee 1

Steering Committee

Chairman:

Mr. Roberto J. P. Severini (Argentina), Chairman of the Conference

Vice-Chairmen:

Messrs. A. L. Badalov (USSR), J. Jipguep (Cameroon), H. Kieffer (Switzerland), Li Linchuan (China), A. Petti (Italy), G. O. Robinson (United States), Vice-Chairmen of the Conference

Terms of reference:

To co-ordinate the work of the Committees, fix the timetable of meetings, etc.

o Committee 2

Credentials Committee

Chairman:

Mr. C. J. Martínez (Venezuela)

Vice-Chairman:

Dr. Amer Jomard (Iraq)

Terms of reference:

To verify the credentials of delegations and to report on its conclusions to the plenary meeting within the time specified by the latter.

Committee 3

Budget Control Committee

Chairman:

Mr. Z. Kupczyk (Poland)

Vice-Chairman:

Mr. K. P. R. Menon (Malaysia)

Terms of reference:

To determine the organization and the facilities available to the delegates and to

examine and approve the accounts for expenditure incurred throughout the duration of the Conference.

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Technical Regulations Committee

Chairman:

Mr. N. Morishima (Japan)

Vice-Chairman:

Mr. M. Cisse (Senegal)

Terms of reference:

To consider proposals concerning the following articles:

Article N1, Terms and definitions; Section V, Space, orbits and types of objects in space; Section VI, Technical characteristics Article N2, Nomenclature of the frequency and wavelength bands used in radiocommunication

Article N3, Designation of emissions Article N4, Technical characteristics Article N16, Interference Article N17, Tests

and the related Appendices 3, 4, 5 and B.

To consider proposals concerning technical provisions included in the following articles:

Article N25, Terrestrial radiocommunication services sharing frequency bands with space radiocommunication services above 1 GHz

Article N26, Space radiocommunication services sharing frequency bands with terrestrial radiocommunication services above 1 GHz

Article N27, Special rules relating to space radiocommunication services

Article N33, Radiodetermination service and radiodetermination-satellite service; *Section IVB*, Radiobeacon stations and the related Appendices 28 and 29.

To consider as appropriate to the work of the Technical Regulations Committee the resolutions and recommendations adopted by previous administrative radio conferences and to take such action as may be considered necessary including the adoption of any new resolutions and recommendations and also to consider Appendix A.

□ Committee 5

Frequency Allocations Committee

Chairman:

Mr. M. Harbi (Algeria)

Vice-Chairman:

Mr. J. J. Hernández (Mexico)

Terms of reference:

To consider proposals concerning the following articles:

Article N1, Terms and definitions (Sections

III-V); Section II, Radio systems, services and stations; Section III, Terrestrial radio systems, services and stations; Section IV, Space radio systems, services and stations and radio astronomy

Article N5, General rules for the assignment and use of frequencies

Article N6, Special agreements

Article N7, Frequency allocations

Article N8, Special rules for the assignment and use of frequencies

Article N28, Section I, Broadcasting service

Article N29, Fixed service

Article N47, Special rules relating to the use of frequencies in the aeronautical mobile service

and the related Appendix 24.

To consider as appropriate to the work of the Frequency Allocations Committee the resolutions and recommendations adopted by previous administrative radio conferences and to take such action as may be considered necessary including the adoption of any new resolutions and recommendations.

□ Committee 6

Regulatory Procedures Committee

Chairman:

Mr. M. Joachim (Czechoslovakia)

Vice-Chairman:

Mr. E. J. Wilkinson (Australia)

Terms of reference:

To consider proposals concerning the co-ordination, notification and registration of frequency assignments, and the activities of the IFRB and, in particular, proposals concerning the following articles:

Article N9, Co-ordination, notification and registration of frequencies—International Frequency Registration Board, general provisions

Article N10, Internal Regulations of the International Frequency Registration Board

Article N11, Co-ordination of frequency assignments to stations in a space radio-communication service except stations in the broadcasting-satellite service and to appropriate terrestrial stations

Article N12, Notification and recording in the Master International Frequency Register of frequency assignments to terrestrial radiocommunication stations

Article N13, Notification and recording in the Master International Frequency Register of frequency assignments to radio astronomy and space radiocommunication stations except stations in the broadcastingsatellite service

and the related Appendices 1, 1A and 1B.

To consider proposals concerning regulatory measures against harmful interference covered by the following articles:

Article N18, International monitoring Article N19, Reports of infringements

Article N20, Procedure in the case of harmful interference

and the related Appendices 6, 7, 8 and 9.

To consider as appropriate to the work of the Regulatory Procedures Committee the resolutions and recommendations adopted by previous administrative radio conferences and to take such action as may be considered necessary including the adoption of any new resolutions and recommendations.

□ Committee 7

General Administrative Committee

Chairman:

Mr. P. O. Okundi (Kenya)

Vice-Chairman:

Mr. H. L. Venhaus (Federal Republic of Germany)

Terms of reference:

To deal with proposals on general administrative matters not covered by other Committees and, in particular, to consider proposals concerning the following articles:

Article N1, Terms and definitions; Section I, General terms

Article N21, Secrecy

Article N22, Licences

Article N23, Identification of stations

Article N24, Service documents

Article N30, Amateur service and amateursatellite service

Article N31, Standard frequency service and time signals service

Article N32, Experimental stations

Article N33, Radiodetermination service and radiodetermination-satellite service, Sections I, II, III and IVA

Article N39, Special services relating to safety

Article N73, Effective date of the Radio Regulations

and the related Appendices C, 9, 10 and 23.

To consider proposals on the technical aspects for the use of radiocommunications for making, identifying, locating and communicating with the means of medical transport protected under the 1949 Geneva Conventions and any additional instruments of these Conventions.

To suggest to the plenary meeting, taking account also of the advice of the other Committees, a programme of future administrative radio conferences to deal with specific services with a view to presenting advice on such a programme to the

ITU Administrative Council for subsequent submission to the Plenipotentiary Conference.

To consider Resolution No. Sat-4 of the World Broadcasting-Satellite Administrative Radio Conference (Geneva, 1977), and to take such action as may be considered necessary.

To consider as appropriate to the work of the General Administrative Committee the resolutions and recommendations adopted by previous administrative radio conferences and to take such action as may be considered necessary including the adoption of any new resolutions and recommendations.

Committee 8

Restructure of the Radio Regulations and the Additional Radio Regulations

Chairman:

Mr. O. Lundberg (Sweden)

Vice-Chairman:

Mr. G. I. Warren (Canada)

Terms of reference:

To consider the specific proposals concerning the basic re-arrangement of the Radio Regulations and the Additional Radio Regulations, and the further refinement and deletion of superfluous or redundant provisions in Articles N34-N38, N40-N46 and N48-N72, as well as any consequential amendments concerning those articles, related appendices, resolutions and recommendations including the adoption of any new resolutions and recommendations.

To consider proposals based on the CCITT studies carried out in accordance with Resolutions Nos. Mar2-22 and Mar2-23 and to take such action as may be considered necessary.

a Committee 9

Editorial Committee

Chairman:

Mr. P. Bassole (France)

Vice-Chairmen:

Mr. V. Quintas (Spain)

Mr. D. E. Baptiste (United Kingdom)

Terms of reference:

To perfect the form of the texts of the Final Acts without altering the sense.

Roberto Severini

An Argontine citizen, Mr. Severini is 56 years old. In 1957 he graduated from the University of Buenos Aires as a telecommunications engineer.

Since 1942 he has been working for the *Empresa Nacional de Telecomunicaciones* (ENTEL), where he has held various posts until appointed Director of Planning.

In April 1979 he was appointed Technical Under-Secretary of Communications.

Since 1961 he has been giving a course on telecommunications at the University of Buenos Aires.



International activities:

• 1963

Delegate at the Extraordinary Administrative Radio Conference to allocate frequency bands for space radiocommunication purposes (Geneva)

1968

Appointed Vice-President of the Plan Committee for Latin America on the occasion of the IVth Plenary Assembly of the CCITT (Mar del Plata)

1979

Appointed President of the Plan Committee at Lima

March 1979

Appointed Chairman of COM/ CITEL on the occasion of the last meeting of Inter-American Telecommunication Conference (CITEL).

CORRIGENDUM

Visit by the Secretary-General of ITU to Poland...

In our September issue, on page 528, photograph No. 79018 was published in error and should be replaced by the accompanying photograph No. 790182.

Professor E. Kowalczyk, Minister of PTT, awarding the Polish Telecommunications Gold Medal of Merit to Mr. M. Mili



79018



World Administrative Radio Conference

(Geneva, 24 September-30 November 1979)

Status of work at the end of the seventh week

During the first seven weeks, the Conference operated mainly in Working Groups and "Ad Hoc" Working Groups set up by the various Committees.

I. WORK OF COMMITTEES *

A progress report on the work accomplished by the Committees by the end of the seventh week, as described during the second plenary meeting held by the Conference on Thursday, 8 November 1979, is given below.

■ Committee 2

Credentials Committee

Chairman:

Mr. C. J. Martínez (Venezuela)

Vice-Chairman:

Dr. A. Jomard (Iraq)

Work done:

On 19 November Committee 2 was to present a report on the 130 credentials examined presented by the 140 countries represented at the Conference.

Committee 3

Budget Control Committee

Chairman:

Mr. Z. Kupczyk (Poland)

Vice-Chairman:

Mr. K. P. R. Menon (Malaysia)

Work done:

Committee 3 had held four meetings since the beginning of the Conference. As of 30 October the Conference had kept within its budget.

■ Committee 4

Technical Regulations Committee

Chairman:

Mr. N. Morishima (Japan)

Vice-Chairman:

Mr. M. Cisse (Senegal)

Working Group 4A

Chairman:

Mr. A. R. Bastikar (Canada)

Terms of reference:

Consideration of proposals relating to Article N1 (Sections V and VI) and Article N2.

Working Group 4B

Chairman:

Mr. E. R. Craig (Australia)

Terms of reference:

Consideration of proposals relating to sharing criteria between space systems and between space and terrestrial systems:

- Articles N25, 26, 27 and 27A;
- Appendices 28, 28A, 28B, 29;
- Appendices 1A and 1B in connection with Committee 6.

Working Group 4C

Chairman:

Mr. E. George (Federal Republic of Germany)

Terms of reference:

Consideration of proposals relating to technical provisions:

- Articles N3, 4, 16, 17, 33 (Section IV B);
- Appendices 3, 4, 5, A and B.

Work done:

Working Groups 4A and 4C had completed their work; Working Group 4B and Committee 4 itself were to complete theirs at the end of this seventh week.

Committee 5

Frequency Allocations Committee

Chairman:

Mr. M. Harbi (Algeria)

Vice-Chairman:

Mr. J. J. Hernández (Mexico)

Working Group 5A

Chairman:

Mr. V. Quintas Castañs (Spain)

Terms of reference:

Review and if necessary revise all provisions associated with the Table of Frequency Allocations (Articles N1, N5, N6, N8 (Section 1), N29, N33A, N47).

Working Group 5B

Chairman:

M. L. Cook (Venezuela)

Terms of reference:

Review and if necessary revise the Table of Frequency Allocations in the bands below 27.5 MHz and consider any resolutions and recommendations concerning the use of frequencies in these bands.

Working Group 5C

Chairman:

Mr. K. Olms (Federal Republic of Germany)

Terms of reference:

Review and if necessary revise the Table of Frequency Allocations in the bands between 27.5 MHz and 960 MHz and consider any resolutions and recommendations concerning the use of frequencies in these bands.

Working Group 5D

Chairman:

Dr. B. S. Rao (India)

Terms of reference:

Review and if necessary revise the Table of Frequency Allocations in the bands between 960 MHz and 40 GHz and consider any resolutions and recommendations concerning the use of frequencies in these bands.

Working Group 5E

Chairman:

Dr. A. W. Adey (Canada)

Terms of reference:

Review and if necessary revise the Table of Frequency Allocations in the bands above 40 GHz and consider any resolutions and recommendations concerning the use of frequencies in these bands.

Work done:

All Working Groups of Committee 5 were still very busy. Committee 5 and its Working Groups had held a total of 113 meetings since the beginning of the Conference and had dealt with 12 271 of 12 612 proposals referred to the Committee. It was assumed that a further 22 meetings would have to be held.

Committee 6

Regulatory Procedures Committee

Chairman:

Mr. M. Joachim (Czechoslovakia)

Vice-Chairman:

Mr. E. J. Wilkinson (Australia)

Working Group 6A

Chairman:

Mr. J. K. Björnsjö (Sweden)

^{*} For details of the Committee's terms of reference and the titles of the articles of the Radio Regulations mentioned below, reference should be made to the *Telecommunication Journal* of November 1979, pages 662-663.

Terms of reference:

To examine the proposals relating to

- the co-ordination, notification and registration of frequency assignments (Articles N11/9-9A, N12/9, N13/9A) and proposals relating to new procedures connected with these articles;
- Appendices 1, 1A and 1B;
- the appropriate resolutions (including Resolution No. Spa2-3) and recommendations.

Working Group 6B

Chairman:

Mrs. L. García de Davis (Costa Rica)

Terms of reference:

To examine the proposals relating to

- the activities of the IFRB (Articles N9/8 and N10/11);
- the provisions adopted against harmful interference in Articles N18/13 (International monitoring), N19/16 (Reports of infringements) and N20/15 (Procedure in a case of harmful interference) and the corresponding appendices (6, 7 and 8);
- -- the amendments to be made to Appendix 9 (List I) resulting from the decisions on Articles N11, N12, N13 and Appendices 1, 1A and 1B;
- the resolutions and recommendations other than those relating to procedures connected with Articles N11, N12 and N13.

Work done:

Since the beginning of the Conference, Committee 6 had held eight plenary meetings, and a further two meetings were required. Working Group 6A was to complete its work. Working Group 6B had finished work.

■ Committee 7

General Administrative Committee

Chairman:

Mr. P. O. Okundi (Kenya)

Vice-Chairman:

Mr. H. L. Venhaus (Federal Republic of Germany)

Working Group 7A

Chairman:

Mr. J. J. Foggon (Australia)

Terms of reference:

To consider proposals on the technical aspects for the use of radiocommunications for marking, identifying, locating and communicating with the means of medical transport protected under the 1949 Geneva Conventions and any additional instruments of these Conventions.

Working Group 7B

Chairman:

Mr. A. L. Witham (United Kingdom)

Terms of reference:

To consider Article N1, Terms and definitions; Section I, General terms.

Work done:

Working Group 7A had finished its work at the end of the seventh week. Working Group 7B had practically finished and was preparing its last report.

■ Committee 8

Restructure of the Radio Regulations and the Additional Radio Regulations

Chairman

Mr. O. Lundberg (Sweden)

Vice-Chairman:

Mr. G. I. Warren (Canada)

Work done:

Committee 8 had finished its work two weeks previously.

■ Committee 9

Editorial Committee

Chairman:

Mr. P. Bassole (France)

Vice-Chairmen:

Mr. V. Quintas Castañs (Spain)

Mr. D. E. Baptiste (United Kingdom)

Work done:

The Editorial Committee had edited some 220 pages out of about 1000 pages estimated for the Final Acts.

II. PLENARY MEETING

At its second plenary meeting (see above) the Conference considered some 200 pages of texts prepared by Committees 4, 5, 6, 7 and 8 and edited by Committee 9. These texts deal with the following articles, resolutions and recommendations:

1. Articles of the new Radio Regulations Part A

Chapter NII

Technical provisions

Article N4 Technical characteristics of stations

Chapter NIV

Co-ordination, notification and registration of frequencies, International Frequency Registration Board

Article N9 General provisions

Article N13A Supplementary procedure to be applied in cases where a footnote in the Table of Frequency Allocations requires an agreement with an administration

Chapter NV

Measures against interference. Tests

Article N18 International monitoring
Article N19 Reports of infringements

Article N20 Procedure in a case of harmful interference

Chapter NVI

Administrative provision for stations

Article N21 Secrecy

Article N22 Licences.

Part B

Chapter NVIII

Provisions relating to groups of services and to specific services and stations

Article N25 Terrestrial radiocommunication services sharing frequency bands with space radiocommunication services above 1 GHz

Article N30 Amateur service and amateur satellite service

Article N31 Standard frequency service and time signals service

Article N32 Experimental stations

Chapter NIX

Distress and safety communications

Article N34 General provisions

Article N35 Frequencies for distress and safety

Article N36 Distress communications

Article N38 Alarm and warning signals

Chapter NX

Aeronautical mobile service

Article N40 Authority of the person responsible for the mobile stations in the aeronautical mobile service

Article N41 Operators' certificates for aircraft stations

Article N42 Personnel of aeronautical stations in the mobile service

Article N43 Inspection of aircraft stations

Article N44 Working hours of stations in the aeronautical mobile service

Article N45 Working conditions in the aeronautical mobile service

Article N46 Conditions to be observed by mobile stations in the aeronautical mobile service

- Article N48 Order of priority of communications in the aeronautical mobile service
- Article N49 General radiotelegraph procedure in the aeronautical mobile service
- Article N50 Radiotelephone procedure in the aeronautical mobile service—Calls

Chapter NXI

Maritime mobile service and maritime mobile satellite service

Article N51 Authority of the master

- Article N52 Operators' certificates for ship stations and mobile earth stations in the maritime mobile satellite service
- Article N53 Personnel of stations in the maritime mobile service
- Article N54 Inspection of ship stations and ship earth stations
- Article N55 Working hours of stations in the maritime mobile service
- Article N56 Conditions to be observed in the maritime mobile service and in the maritime mobile satellite service
- Article N57 Special rules relating to the use of frequencies in the maritime mobile service.
- Article N58 Order of priority of communications in the maritime mobile service and in the maritime mobile satellite service
- Article N59 Selective calling procedure in the maritime mobile service
- Article N60 General radiotelegraph procedure in the maritime mobile service
- Article N61 General procedures for narrow band direct-printing telegraphy in the maritime mobile service
- Article N62 General radiotelephone procedure in the maritime mobile service
- Article N62A Public correspondence in the maritime mobile service and the maritime mobile satellite service

Chapter NXII

Land mobile service

- Article N65 Conditions to be observed by mobile stations in the land mobile service
- Article N68 General radiotelephone procedures in the land mobile service— Calls.

2. Resolutions of the new Radio Regulations

- AA relating to a procedure for resolving a disagreement over the technical standards or rules of procedure of the IFRB
- AB relating to operational provisions, charging and accounting for public correspondence in the mobile services

- AC relating to the eventual abolition of mobile station charges for public correspondence in the maritime mobile service
- AE relating to the division of the world into Regions for the purposes of allocating frequency bands
- AF relating to the use of radiotelegraph and radiotelephone links by Red Cross, Red Crescent, Lion and Red Sun Organizations

3. Recommendations of the new Radio Regulations

- B relating to the marginal numbering of the Radio Regulations
- C relating to the application of Chapters NX, NXI and NXII of the rearranged Radio Regulations
- D to the CCIR and to administrations relating to international monitoring.

4. Resolutions and recommendations of the present Radio Regulations

Finally, during the second plenary meeting a number of resolutions and recommendations included in the present Radio Regulations were suppressed whilst others were conserved. The latter are as follows:

Resolution No. Mar4

relating to the conversion to single sideband technique of stations of the radiotelephone maritime mobile service operating in the bands between 1605 and 4000 kHz

Resolution No. Mar20

concerning the establishment of a coordinated world-wide system for the collection of data relating to oceanography

Resolution No. Spa2-2

relating to the establishment of agreements and associated plans for the broadcasting satellite service

Resolution No. Mar2-4

relating to the implementation of the new channelling agreement for Al Morse radiotelegraphy in the bands allocated to the maritime mobile service between 4000 and 27 500 kHz

Resolution No. Mar2-15

relating to the unauthorized use of frequencies in the bands allocated to the maritime mobile service

Recommendation No. 16

relating to the measures to be taken to prevent the operation of broadcasting stations on board ships or aircraft outside national territories.