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# Union Activities

## The Mobile Services Conference

**T**he World Administrative Radio Conference for the mobile services (MOB-87), which started at the Geneva International Conference Centre (CICG) on 14 September 1987 (see the *Telecommunication Journal*, November 1987, pages 720-722) completed its work on 17 October with the signing of the Final Acts.

More than 800 delegates from 108 countries attended this Conference, together with observers representing the following organizations: United Nations, International Civil Aviation Organization (ICAO), International Maritime Organization (IMO), World Meteorological Organization (WMO), European Conference of Postal and Telecommunications Administrations (CEPT), Arab Telecommunication Union (ATU), Pan African Telecommunications Union (PATU), Agency for the Safety of Air Navigation in Africa and Madagascar (ASECNA), European Space Agency (ESA), International Air Transport Association (IATA), International Association of Lighthouse Authorities (IALA), International Chamber of Shipping (ICS), International Committee of the Red Cross (ICRC), International Maritime Radio Committee (CIRM), International Electrotechnical Commission (IEC), International Transport Workers' Federation (ITF), International Maritime Satellite Organization (INMARSAT), International Telecommunications Satellite Organization (INTELSAT), International Society for Aeronautical Telecommunications (SITA) and International Amateur Radio Union (IARU).

Mr J. W. Egan (Canada) was elected Chairman of the Conference, the six Vice-Chairmen being: Messrs H. J.

Vergara (Argentina), Z Song (China), H. A. Kieffer (Switzerland), A. Toumi (Morocco), D. J. Markey (United States) and Y. A. Tolmachev (USSR).



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*Signature of the Final Acts: M. C. T. Ndongue (Senegal)*

### Purposes of the Conference

The Conference had the task of examining and, where appropriate, revising the provisions of the Radio Regulations governing the mobile services, the mobile-satellite services and the radio-navigation-satellite and radiodetermination-satellite services with a view to the horizon of the year 2000, while bearing in mind the requirements and interests of all countries, both developed or developing.

### Results of the Conference

The results of the Conference are contained in the Final Acts, amounting to some 400 pages.

### Questions relating to distress and safety at sea

One of the main items on the agenda of this Conference was to follow up the provisional or experimental measures adopted by the World Administrative Radio Conference for the mobile services, 1983, concerning the proposed Global Maritime Distress and Safety System (GMDSS) developed by IMO, with which ICAO is concerned and for which the International Radio Consultative Committee (CCIR) has carried out studies in the field of radio.

In this connection, Chapter IX of the Radio Regulations, dealing with distress and safety communications, was revised in order to delete the provisions relating to frequencies and applicable to the GMDSS.

A new Chapter IX dealing with distress and safety communications in the GMDSS was established containing all the provisions with a specific bearing on the GMDSS:

- general provisions;
- frequencies for distress and safety communications in the GMDSS;
- operational procedures for distress and safety communications in the GMDSS;
- operational procedures for urgency and safety communications in the GMDSS;
- alert signals.

In the service documents, the *List of coast stations* will contain a list of coast stations and coast earth stations taking part in the GMDSS. The Conference also decided on the documents to be supplied to ship stations compulsorily equipped with a GMDSS installation under the terms of an international agreement.

A number of Resolutions were adopted, relating in particular to:

- the introduction of provisions for the GMDSS and the continuation of the existing distress and safety provisions;
- the study and implementation of a global land and maritime safety system;
- the co-ordination of the use of HF maritime mobile frequencies for broadcast of high seas marine safety information;
- the coast stations and coast earth stations assuming watch-keeping responsibilities on certain frequencies in connection with the implementation of distress and safety communications for the GMDSS.

#### **Aeronautical mobile service and aeronautical mobile-satellite service**

The provisions governing the aeronautical mobile service and the aeronautical

mobile-satellite service were re-examined and modified according to requirements in the following particular fields: operator certificates, personnel of aeronautical stations and aeronautical earth stations, station operating periods, communications of aircraft stations with stations of the maritime mobile service and the maritime mobile-satellite service.

The general procedure for communications in the aeronautical mobile service was completely reviewed.

Finally, the Conference adopted provisions which will enable the evolution of public correspondence with aircraft (APC) in the frequency bands allocated to the aeronautical (R) mobile service (national or international civil aviation routes), with first priority always to be given to safety traffic and flight regularity communications. The Conference adopted two Resolutions for public correspondence, one relating to the development of a global system of public correspondence with aircraft, and the other concerning the use of the frequency bands allocated to this service.

#### **Maritime mobile and maritime mobile-satellite services**

The Conference accomplished a considerable task of updating the provisions governing the maritime mobile and maritime mobile-satellite services in the light of technical progress (decreasing importance of Morse telegraphy in favour of narrow-band direct-printing telegraphy and selective calling) coupled with the increasing use of radiotelephony and also in the light of the fact that the World Administrative Radio Conference (WARC-79) allocated new HF frequencies to the maritime mobile service.

The Conference revised Article 55 relating to the certificates of the personnel of ship stations and ship earth stations, maintaining the classes of certificate and conditions for obtaining certificates for the operators of ship stations and ship

earth stations using the frequencies and techniques prescribed for distress and safety communications and for public correspondence. It also established four new categories of certificates for the personnel of ship stations and ship earth stations using the frequencies and techniques prescribed for distress and safety communications in the GMDSS and for public correspondence: first- and second-class radio electronic certificates, general operator's certificate and restricted operator certificate. It established the conditions for obtaining these certificates and fixed the class and minimum number of personnel in ship stations and ship earth stations.

MOB-87 adopted conditions to be fulfilled by ship stations using narrow-band direct-printing telegraphy. It revised, in their entirety, the provisions governing the use of frequencies in the maritime mobile service to allow for the increasing use of automatic narrow-band direct-printing telegraphy (international NAVTEX system) and the new bands available in the VHF range.

The procedure for selective calling in the maritime mobile service was studied with a particular view to permitting the development of digital selective calling. (Selective calling implies the allocation to each ship of a coded signal similar to a telephone number, which belongs to that ship, and the provision of an automatic receiver which responds to the transmission of this coded signal by a calling station.) Procedures were established in particular for digital selective calling.

The general radiotelephony procedure in the maritime mobile service was likewise reviewed, together with the question of accounting. On the latter subject, a Resolution was passed relating to the inclusion in the new Telecommunication Regulations to be adopted by the World Administrative Telegraph and Telephone Conference (Melbourne, 1988) of provisions governing charging and accounting for maritime radiocommunications in the maritime mobile service and the mobile-satellite service

except for distress and safety communications.

### Land mobile service

Chapter XII of the Radio Regulations, hitherto entitled "Land mobile service", will henceforth be called "Land mobile service and land mobile-satellite service". A section has been inserted relating to land mobile earth stations of the land mobile-satellite service. The "Land mobile earth station" was defined by the Conference as a "mobile earth station in the land mobile-satellite service capable of surface movement within the geographical limits of a country or a continent".

### Other provisions

The Conference also adopted new definitions concerning:

- land earth stations
- base earth stations
- land mobile earth stations
- the aeronautical mobile (R) service
- the aeronautical mobile (OR) service.

It also reviewed the content of certain service documents to take account, for example, of the introduction of the GMDSS (List IV: List of coast stations).

It examined the implementation of the radiodetermination-satellite service which has been developing over the past few years and enables the user to obtain information on his position and to transmit brief messages giving data on his position, or for distress and safety purposes. To this effect, under certain conditions and with different statutory arrangements for each of the three Regions, it allocated the following frequency bands to this service: 1610-1626.5 MHz (Earth-to-space); 2483-2500 MHz (space-to-Earth); 5150-5216 MHz (space-to-Earth). Furthermore, use of the radiodetermination-satellite service was confined to feeder

links associated with this service as operated in the bands 1610-1626 MHz or 2483.5-2500 MHz.

### Technical cooperation

The Conference reviewed the Resolution contained in the Radio Regulations on technical cooperation with the developing countries in connection with maritime telecommunications, and decided in particular to instruct the Secretary-General of the ITU to continue to offer the Union's assistance to developing countries which attempt to improve their maritime communications and, for this purpose, to call on IMO, the United Nations Conference on Trade and Development (UNCTAD), other United Nations specialized agencies, the World Maritime University, and the United Nations Development Programme (UNDP) for their collaboration.

It adopted a Resolution on technical cooperation for the developing countries in the area of aeronautical telecommunications. In this Resolution, which recognizes the effectiveness of ITU assistance, the Conference instructs the Secretary-General of the Union to encourage ICAO to pursue its assistance to developing countries which attempt to improve their aeronautical communications, to collaborate with ICAO, UNCTAD and other specialized agencies, as well as UNDP. It invites the developing countries, so far as possible, to grant a high level of priority to requests for assistance in this area.

### Appendices

The Conference revised a number of appendices contained in the Radio Regulations. These appendices contain technical data, frequency plans or tables to be used by the mobile services, such as:

- table of transmitter frequency tolerances (Appendix 7);
- service documents (Appendix 9);
- documents to be provided to ship stations and aircraft stations (Appendix 11);

- various abbreviations and signals for the maritime mobile service (Appendix 14);
- tables of frequencies for various bands used in the maritime mobile service (Appendices 16 and 18);
- equipment characteristics (transmitters, receivers) (Appendices 17, 19 and 20);
- frequency allotment plans for coast stations (Appendix 25);
- frequency allotment plans for the aeronautical mobile service (Appendix 26);
- channelling arrangements to be employed in narrow-band systems (Appendix 33);
- identities in the maritime mobile service (Appendix 43).

### Resolutions and Recommendations

The Conference abolished 24 Resolutions contained in the Radio Regulations, amended 13 and adopted 30 new ones.

Among the amended or new Resolutions not referred to in the foregoing paragraphs, mention may be made of those relating to:

- Recommendations and standards for emergency position-indicating radio-beacons operating on the frequencies 121.5 and 243 MHz;
- the compatibility of equipment used in the mobile-satellite service;
- the implementation and use of the frequency 156.525 MHz for digital selective calling for distress, safety and calling;
- the identification and location of special vessels, such as medical transports, by means of standard maritime radar transponders;
- the need to study the question of including decisions of regional administrative radio conferences in the Radio Regulations;

- frequency provisions for development and future implementation of ship-movement telemetry, telecommand and data exchange systems;
- the extension of the frequency bands allocated to the mobile-satellite service and the mobile service and their conditions of use. In this Resolution, the Conference decided to recommend that the Plenipotentiary Conference, 1989, should take appropriate steps to convene a world administrative radio conference not later than 1992 with a view to revising certain parts of the table of frequency allocations in the Radio Regulations and, in particular, in response to future mobile service requirements.

With regard to Recommendations, the Conference deleted 13, amended 8 and adopted 8 new ones, relating to:

- the technical characteristics and frequencies of ship transponders;
- the future use and the characteristics of emergency position-indicating radiobeacons (EPIRBs);
- studies of the interconnection of maritime mobile radiocommunication systems with international telephone and telegraph networks;
- future land mobile public telecommunication systems.

#### **Entry into force of the regulatory changes**

The partial revision of the Radio Regulations carried out by the Conference will come into force on 3 October 1989 at 00h01 UTC (universal coordinated time), with the exception of certain specific provisions for which other dates have been set, in particular Chapter IX (Distress and safety communications) and Chapter N IX (Distress and safety communications in the GMDSS), which will come into force on 1 July 1991.