INTERNATIONAL TELECOMMUNICATION CONVENTION

TOGETHER WITH THE

RADIOCOMMUNICATION REGULATIONS ANNEXED THERETO

AND THE

FINAL PROTOCOL

Signed at Madrid, December 9, 1932

OTTAWA
J. O. PATENAUDE, I.S.O.
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1935

INTERNATIONAL TELECOMMUNICATION CONVENTION

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FINAL PROTOCOL

to the General Radiocommunication Regulations annexed to the International Telecommunication Convention

(Translation)

INTERNATIONAL TELECOMMUNICATION CONVENTION

Concluded among the Governments of the Countries named below

Union of South Africa; Germany; Argentine Republic; Commonwealth of Australia; Austria; Belgium; Bolivia; Brazil; Canada; Chile; China; Vatican City State; Republic of Colombia; French Colonies, Protectorates and Territories under French Mandate; Portuguese Colonies; Swiss Confederation; Belgian Congo; Costa Rica; Cuba; Curaçao and Surinam; Cyrenaica; Denmark; Danzig Free City; Dominican Republic; Egypt; Republic of El Salvador; Ecuador; Erythrea; Spain; United States of America; Empire of Ethiopia; Finland; France; The United Kingdom of Great Britain and Northern Ireland; Greece; Guatemala; Republic of Honduras; Hungary; Italian Islands of the Aegean; British India; Dutch East Indies; Irish Free State; Iceland; Italy; Japan, Chosen, Taiwan, Karafuto, the Leased Territory of Kwantung and the South Seas Islands under Japanese Mandate; Latvia; Liberia; Lithuania; Luxemburg; Morocco; Mexico; Nicaragua; Norway; New Zealand; Republic of Panama; the Netherlands; Peru; Persia; Poland; Portugal; Roumania; Italian Somaliland; Sweden; Syria and Lebanon; Czechoslovakia; Tripolitania; Tunis; Turkey; Union of Soviet Socialist Republics; Uruguay; Venezuela; Jugoslavia.

The undersigned, plenipotentiaries of the Governments named above, being assembled in conference at Madrid, have, by common consent and subject to ratification, concluded the following Convention:

CHAPTER 1

Organization and Working of the Union

ARTICLE 1

Composition of the Union

1. The countries, parties to the present Convention, form the International Telecommunication Union, which replaces the Telegraph Union, and which is governed by the following provisions.

2. The terms used in the present Convention are defined in the Annexe thereto.

ARTICLE 2

Regulations

1. The provisions of the present Convention are completed by the following sets of Regulations:

Telegraph Regulations,
Telephone Regulations,
Radiocommunication Regulations (General Regulations and Additional Regulations),

which bind only the Contracting Governments which have undertaken to apply them, and solely in respect of the Governments which have undertaken the same obligation.

2. Only the signatories to the Convention or Governments acceding to this act are admitted to sign the Regulations or to accede to them. Signature of one, at least, of the sets of Regulations is obligatory for the signatories tc the Convention. Similarly, the accession to one, at least, of the sets of Regulations is obligatory for Governments acceding to the Convention. The Additional Radiocommunication Regulations cannot, however, be signed or be the subject of accession unless signature or accession has been made in respect of the General Radiocommunication Regulations.

3. The provisions of the present Convention bind the Contracting governments in respect only of the services covered by the Regulations to which the Governments are parties.

ARTICLE 3

Accession of Governments to the Convention

1. The Government of a country, on whose behalf the present Convention has not been signed, may accede thereto at any time. This accession must include accession to one at least of the annexed sets of Regulations, subject to the observance of section 2 of Article 2 above.

2. The act of accession of a Government shall be deposited in the archives of the Government which received the Conference of plenipotentiaries by whom the present

Convention was concluded. The Government with which the act of accession is deposited notifies it to all the other Contracting Governments through the diplomatic channel.

3. Accession carries with it, of full right, all the obligations and all the advantages provided by the present Convention; in addition it involves the obligations and advantages provided by the particular Regulations which the acceding Governments undertake to apply.

Article 4

Accession of Governments to the Regulations

The Government of a country signatory or acceding to the present Convention may accede at any time to any set or sets of Regulations to which it has not bound itself, subject to the provisions of section 2 of Article 2. This accession is notified to the Bureau of the Union, which informs the other Governments concerned.

Article 5

Accessions to the Convention and Regulations of Colonies, Protectorates, Overseas Territories or Territories under Sovereignty, Authority or Mandate of the Contracting Governments

1. Each Contracting Government may declare, either at the time of its signature, ratification or accession, or later, that its acceptance of the present Convention includes all or a group or a single one of its colonies, protectorates, overseas territories or territories under sovereignty, authority or mandate.

2. The whole or a group or a single one of these colonies, protectorates, overseas territories or territories under sovereignty, authority or mandate may respectively, at any time, become the subject of a separate accession.

3. The present Convention does not apply to the colonies, protectorates, overseas territories or territories under sovereignty, authority or mandate of a Contracting Government, in the absence of a declaration to that effect made by virtue of section 1 of the present Article or of a separate accession made by virtue of section 2 above.

4. The declarations of accession made by virtue of sections 1 and 2 of the present Article shall be communicated through the diplomatic channel to the Government of the country on whose territory there was held the Conference of plenipotentiaries at which the Convention was drawn up, and a copy of it shall be forwarded by this Government to each of the other Contracting Governments.

5. The provisions of sections 1 and 3 of the present Article apply also to the acceptance of one or more of the sets of Regulations, or to accession to one or more of the sets of Regulations, subject to the provisions of section 2 of Article 2. This acceptance or accession is notified in conformity with the provisions of Article 4.

6. The provisions of the preceding paragraphs do not apply to the colonies, protectorates, overseas territories or territories under sovereignty, authority or mandate which are named in the preamble to the present Convention.

ARTICLE 6

Ratification of the Convention

1. The present Convention should be ratified by the signatory Governments and the ratifications shall be deposited, through the diplomatic channel, in as short a time as possible, in the archives of the Government of the country which received the Conference of plenipotentiaries by whom the present Convention was concluded; this Government shall notify the ratifications to the other signatory and acceding Governments, through the diplomatic channel, as and when they are received.

2. If one or more of the signatory Governments do not ratify the Convention, it shall not thereby be less valid for the Governments which have ratified it.

ARTICLE 7

Approval of the Regulations

1. Governments must make an announcement in as short a time as possible regarding their approval of the Regulations drawn up at the Conference. This approval is notified to the Bureau of the Union which informs the members of the Union.

2. If one or more of the Governments concerned does not notify such approval, the new Regulations shall not thereby be less valid for the Governments which have approved them.

ARTICLE 8

Abrogation of Conventions and Regulations Previous to the Present Convention

The present Convention and the Regulations annexed thereto abrogate and replace, in relations between the Contracting Governments, the International Telegraph Conventions of Paris (1865), of Vienna (1868), of Rome (1872) and of St. Petersburg (1875) and the Regulations annexed to them, and also the International Radiotelegraph Conventions of Berlin (1906), of London (1912) and of Washington (1927) and the Regulations annexed to them.

ARTICLE 9

Execution of the Convention and Regulations

1. The Contracting Governments undertake to apply the provisions of the present Convention and of the sets of Regulations accepted by them in all the offices and all the telecommunication stations established or worked by them, which are open to the international service of public correspondence, to the broadcasting service and to the special services governed by the Regulations.

2. They undertake, in addition, to take the necessary steps to impose the observance of the provisions of the present Convention and of the sets of Regulations which they accept, upon private enterprises recognized by them and upon other enterprises duly authorized to establish and operate telecommunication in the international service whether open or not open to public correspondence.

ARTICLE 10

Denunciation of the Convention by Governments

1. Each Contracting Government has the right to denounce the present Convention by a notification addressed through the diplomatic channel to the Government of the country in which was held the Conference of plenipotentiaries which concluded the present Convention, and communicated subsequently by that Government, also through the diplomatic channel, to all the other Contracting Governments.

2. This denunciation takes effect on the expiration of a period of one year from the day of the receipt of notification of it by the Government of the country in which was held the last Conference of plenipotentiaries. It affects only the party making the denunciation; for the other Contracting Governments the Convention remains in force.

ARTICLE 11

Denunciation of the Regulations by Governments

1. Each Government has the right to terminate the undertaking which it has made to execute a set of Regulations by notifying its decision to the Bureau of the Union, which informs the other Governments concerned. This notification takes effect after the expiration of a period of one year from the day of its receipt by the Bureau of the Union. It affects only the party making the denunciation; for the other Governments the set of Regulations in question remains in force.

2. The provisions of section 1 above do not remove the obligation for Contracting Governments to execute at least one of the sets of Regulations, as provided in Article 2 of the present Convention, and subject to the reservation mentioned in section 2 of the said Article.

ARTICLE 12

Denunciation of the Convention and Regulations by Colonies, Protectorates, Overseas Territories or Territories under Sovereignty, Authority or Mandate of the Contracting Governments

1. The application of the present Convention to a territory, made by virtue of the provisions of section 1 or of section 2 of Article 5, may be terminated at any time.

2. The declarations of denunciation contemplated in section 1 above are notified and announced in conformity

with the condition set out in section 1 of Article 10; they take effect in accordance with the provisions of section 2 of the same Article.

3. The application of one or more of the sets of Regulations to a territory, made by virtue of the provisions of section 5 of Article 5, may be terminated at any time.

4. The declarations of denunciation contemplated in section 3 above are notified and announced according to the provisions of section 1 of Article 11 and take effect in the manner prescribed in the same paragraph.

Article 13

Special Arrangements

The Contracting Governments reserve, for themselves, for the private enterprises recognized by them and for other private enterprises duly authorized to do so, the right to make special arrangements on the matters of service which do not concern the Governments in general. These arrangements, however, must remain within the limits of the Convention and the Regulations annexed thereto, so far as concerns the interference which their bringing into operation might be capable of producing with the services of other countries.

Article 14

Relations With Non-Contracting States

1. Each of the Contracting Governments reserves to itself and to the private enterprises recognized by it, the right to fix the conditions on which it admits telecommunications exchanged with a country which has not acceded to the present Convention or to the set of Regulations in which the provisions relating to the telecommunication in question is included.

2. If a telecommunication originating in a non-acceding country is accepted by an acceding country, it must be transmitted, and in so far as it follows the routes of a country acceding to the Convention and to the relative sets of Regulations, the obligatory provisions of the Convention and Regulations in question and the usual charges are applied to it.

Article 15

Arbitration

1. In the case of disagreement between two or more Contracting Governments in respect of the execution either of the present Convention or of the Regulations provided for by Article 2, the dispute, if not settled through the diplomatic channel, is submitted to arbitration at the request of any one of the Governments in disagreement.

2. Unless the parties to the dispute agree to use a procedure already established by treaties concluded between them for the settlement of international disputes, or the procedure contemplated in section 7 of the present Article, arbitrators shall be chosen as follows:—

3. (1) The parties decide, by mutual agreement, whether the arbitration shall be entrusted to individuals or to Governments or Administrations; in the absence of agreement it is referred to Governments.

(2) If arbitration is to be entrusted to individuals, the arbitrators must not be of the nationality of any of the parties concerned in the dispute.

(3) If arbitration is to be entrusted to Governments or Administrations, these must be chosen from among the parties to the agreement of which the application has given rise to the dispute.

4. The party which appeals to arbitration is regarded as the plaintiff. It chooses an arbitrator and notifies its choice to the opposite party. The defendant must then choose a second arbitrator within a period of two months from the receipt of the notification from the plaintiff.

5. If there are more than two parties, each group of plaintiffs or defendants proceeds to choose one arbitrator in accordance with the procedure indicated in section 4.

6. The two arbitrators thus chosen agree upon an umpire who, if the arbitrators are individuals and not Governments or Administrations, may not be of the nationality of any of the arbitrators or of any of the parties. If the arbitrators cannot agree upon the choice of an umpire, each arbitrator proposes an umpire not concerned in the difference. Lots are then drawn between the proposed umpires. The drawing of lots is performed by the Bureau of the Union.

7. Finally the parties in disagreement have the option of having their dispute settled by a single arbitrator. In that case, either they agree upon the choice of the arbitrator or else an arbitrator is chosen in accordance with the method indicated in section 6.

8. The arbitrators are free to settle the procedure to be followed.

9. Each party bears its own costs of the investigation of the dispute. The costs of arbitration are shared equally between the parties concerned.

Article 16

International Consultative Committees

1. Consultative committees may be set up with a view to study questions relating to the telecommunication services.

2. The number, composition, functions and working arrangements of these committees are defined in the Regulations annexed to the present Convention.

Article 17

Bureau of the Union

1. A central office, entitled Bureau of the International Telecommunication Union, functions in the conditions set out below:—

2. (1) Besides the tasks and operations contemplated in various other Articles of the Convention and Regulations, the Bureau of the Union is charged with:—

(*a*) the preparatory work of Conferences and work following on Conferences, at which it is represented in a consultative capacity,

(*b*) providing, in agreement with the organizing Administration concerned, the secretariat of Conferences of the Union, and also, when it is asked to do so or when the Regulations annexed to the present Convention so provide, the secretariat of meetings of committees set up by the Union or placed under the control of the Union,

(*c*) issuing publications of which the general utility becomes evident between two Conferences.

(2) It publishes periodically, with the help of the documents put at its disposal and of the particulars which it is able to collect, an informative and documentary journal on the subject of telecommunication.

(3) It must further at all times hold itself at the disposal of the Contracting Governments to furnish them, on points concerning international telecommunication, with opinions and information which they may need and which it is more likely to possess or better able to obtain than they are.

(4) It makes an annual report on its working which is communicated to all the members of the Union. Its accounts are submitted to the examination and approval of the Conferences, plenipotentiary or administrative, provided for by Article 18 of the present Convention.

3. (1) The general expenses of the Bureau of the Union must not exceed, per annum, the sums fixed in the Regulations annexed to the present Convention. These general expenses do not include:—

(*a*) the expenses proper to the work of plenipotentiary or administrative Conferences,

(*b*) the expenses proper to the work of regularly constituted committees.

(2) The expenses proper to plenipotentiary and administrative Conferences are borne by all the Governments taking part therein in proportion to the contribution which they pay for the working of the Bureau of the Union, in accordance with the provisions of sub-paragraph (3) below.

The expenses proper to meetings of regularly constituted committees are borne in accordance with the provisions of the Regulations annexed to the present Convention.

(3) The receipts and expenditure of the Bureau of the Union must form the subject of two separate accounts, one for the telegraph and telephone services and the other for the radioelectric service. The expenses proper to each of these two divisions are borne by the Governments acceding

to the relative sets of Regulations. For the apportionment of these expenses, the acceding Governments are divided into six classes, each contributing on the basis of a fixed number of units, namely:—

1st class: 25 units,
2nd class: 20 units,
3rd class: 15 units,
4th class: 10 units,
5th class: 5 units,
6th class: 3 units.

(4) Each Government informs the Bureau of the Union, either directly, or through the medium of its Administration, in which class its country should be placed. This classification is communicated to the members of the Union.

(5) The sums advanced by the Government which controls the Bureau of the Union must be reimbursed by the debtor Governments as soon as possible, and at the latest at the expiration of the fourth month following the month during which the account is sent. After this period the sums due are subject to interest, in favour of the creditor Government, at the rate of six per cent (6%) per annum, reckoned from the date of expiration of the period mentioned above.

4. The Bureau of the Union is placed under the supervision of the Government of the Swiss Confederation, which regulates its organization, controls its finances, makes the necessary advances and verifies the annual account.

CHAPTER II

Conferences

ARTICLE 18

Conferences of Plenipotentiaries and Administrative Conferences

1. The provisions of the present Convention are subject to revision by Conferences of plenipotentiaries of the Contracting Governments.

2. The revision of the Convention is undertaken when a previous Conference of plenipotentiaries has so decided or when at least twenty Contracting Governments have expressed a desire for it to the Government of the country in which the Bureau of the Union is installed.

3. The provisions of the Regulations annexed to the present Convention are subject to revision by administrative Conferences of delegates of the Contracting Governments which have approved the Regulations submitted to revision, each Conference itself fixing the place and date of the next meeting.

4. Each administrative Conference may admit the participation, in a consultative capacity, of private enterprises recognized by the respective Contracting Governments.

ARTICLE 19

Change of Date of a Conference

1. The date fixed for the meeting of a Conference, whether plenipotentiary or administrative, may be put forward or postponed on request made by at least ten of the Contracting Governments to the Government of the country in which the Bureau of the Union is installed, provided that the proposal obtains the approval of the majority of the Contracting Governments which have given their opinion within the prescribed period.

2. The Conference then takes place in the country originally designated, if the Government of that country agrees. If it does not agree, the Contracting Governments are consulted by the Government of the country in which the Bureau of the Union is installed.

ARTICLE 20

Rules of Procedure of Conferences

1. Before entering on its deliberations, each Conference adopts Rules of Procedure, which comprise the rules in accordance with which the discussions and work are organized and conducted.

2. For this purpose, the Conference takes as a basis the Rules of Procedure of the previous Conference, which it modifies if it thinks fit.

ARTICLE 21

Language

1. The language used for drawing up the acts of Conferences and for all the documents of the Union is French.

2. (1) In the discussions at Conferences, the French and English languages are admitted.

(2) Speeches delivered in French are immediately translated into English, and vice versa, by official translators of the Bureau of the Union.

(3) Other languages may also be used in the discussions at Conferences, on condition that the delegates using them make arrangements themselves for the translation of their speeches into French or English.

(4) Similarly, these delegates may, if they so desire, arrange for speeches delivered in French and English to be translated into their own language.

CHAPTER III

General Provisions

ARTICLE 22

Telecommunication as a Public Service

The Contracting Governments recognize the right of the public to correspond by means of the international service of public correspondence. The service, charges and safeguards shall be the same for all senders, without any priority or preference whatsoever not provided for by the Convention or the Regulations annexed to it.

ARTICLE 23

Responsibility

The Contracting Governments declare that they accept no responsibility towards users of the international telecommunication service.

ARTICLE 24

Secrecy of Telecommunication

1. The Contracting Governments undertake to adopt all possible measures, compatible with the system of telecommunication used, to ensure the secrecy of international correspondence.

2. Nevertheless, they reserve to themselves the right to communicate international correspondence to the competent authorities in order to ensure the application of their internal legislation, or the execution of international conventions to which the Governments concerned are parties.

ARTICLE 25

Formation, Working and Protection of Installations and Channels of Telecommunication

1. The Contracting Governments provide, in agreement with the other Contracting Governments concerned, and under the best technical conditions, the channels and installations necessary to ensure the rapid and uninterrupted exchange of telecommunication in the international service.

2. So far as possible these channels and installations must be operated according to the best methods and arrangements which practical experience of the service has made known and must be maintained in constant working order and kept abreast of scientific and technical progress.

3. The Contracting Governments ensure the protection of these channels and installations within their respective spheres of action.

4. Each Contracting Government provides and maintains at its own expense—in the absence of special arrangements fixing other conditions—the sections of international conductors included within the territorial limits of its country.

5. In countries where certain telecommunication services are performed by private enterprises recognized by the Governments, the above-mentioned undertakings are given by the private enterprises.

ARTICLE 26

Stoppage of Telecommunication

1. The Contracting Governments reserve to themselves the right to stop the transmission of any private telegram or radiotelegram which may appear dangerous to the security of the State, or contrary to the laws of the country, to public order or decency, subject to the obligation to notify the office of origin immediately of the stoppage of the said communication or any part of it, except when the issue of such notification may appear dangerous to the security of the State.

2. The Contracting Governments also reserve to themselves the right to cut off any private telephone conversation which may appear dangerous to the security of the State, or contrary to the laws of the country, to public order or decency.

ARTICLE 27

Suspension of Service

Each Contracting Government reserves to itself the right to suspend the international telecommunication service for an indefinite time, if it considers it necessary, either generally or only in certain relations and/or for certain kinds of correspondence, subject to the obligation to notify immediately each of the other Contracting Governments through the medium of the Bureau of the Union.

ARTICLE 28

Investigation of Infringements

The Contracting Governments undertake to furnish information to one another in respect of breaches of the provisions of the present Convention and of the sets of Regulations which they accept, in order to facilitate their further action.

ARTICLE 29

Charges and Free Services

The provisions regarding charges for telecommunication and the various cases in which free services are accorded are set out in the Regulations annexed to the present Convention.

ARTICLE 30

Priority of Transmission of Government Telegrams and Radiotelegrams

In transmission Government telegrams and radiotelegrams have priority over other telegrams and radiotelegrams except where the sender declares that he renounces this right to priority.

ARTICLE 31

Secret Language

1. Government telegrams and radiotelegrams, and also service telegrams and radiotelegrams, may be expressed in secret language in all relations.

2. Private telegrams and radiotelegrams may be expressed in secret language in the relations between all countries except those which have previously notified, through the medium of the Bureau of the Union, that they do not admit this language for those categories of correspondence.

3. Contracting Governments which do not admit private telegrams and radiotelegrams in secret language originating in or destined for their own territory, must let them pass in transit, except in the case of suspension of service defined in Article 27.

ARTICLE 32

Monetary Unit

The monetary unit used in the composition of the tariffs of the international telecommunication services and in the establishment of the international accounts is the gold franc of 100 centimes, of a weight of 10/31sts of a gramme and of a fineness of 0·900.

ARTICLE 33

Rendering of Accounts

The Contracting Governments must account to one another for the charges collected by their respective services.

CHAPTER IV

General Provisions for Radiocommunication

ARTICLE 34

Intercommunication

1. Stations performing radiocommunication in the mobile service are bound, within the limits of their normal employment, to exchange radiocommunications reciprocally without distinction as to the radio electric system adopted by them.

2. Nevertheless, in order not to impede scientific progress, the provisions of the preceding paragraph do not prevent the use of a radioelectric system incapable of communicating with other systems, provided that such incapacity is due to the specific nature of such system and is not the result of devices adopted solely with the object of preventing intercommunication.

ARTICLE 35

Interference

1. All stations, whatever their object may be, must, so far as possible, be established and operated in such manner as not to interfere with the radioelectric communications or services of other Contracting Governments, or of private enterprises recognized by those Contracting Governments or other duly authorized enterprises which conduct a radiocommunication service.

2. Each of the Contracting Governments not itself operating systems of radiocommunication undertakes to require private enterprises which it recognizes and other enterprises duly authorized for that purpose to observe the provisions of section 1 above.

ARTICLE 36

Distress Calls and Messages

Stations taking part in the mobile service are bound to accept with absolute priority calls and messages of distress, whencesoever they may come, to reply in like manner to such messages and to give to them the effect which they require.

ARTICLE 37

False or Deceptive Distress Signals. Irregular Use of Call Signs

The Contracting Governments undertake to adopt the necessary steps to suppress the transmission or circulation of false or deceptive distress signals or calls and the use by a station of call signs which have not been regularly assigned to it.

Article 38

Restricted Service

Notwithstanding the provisions of section 1 of Article 34, a station may be appropriated to a restricted international service of telecommunication determined by the object of the telecommunication or by other circumstances independent of the system used.

Article 39

Installations for National Defence

1. The Contracting Governments reserve their entire liberty with regard to radioelectric installations not covered by Article 9, and especially with regard to military stations of the land, sea or air forces.

2. (1) Nevertheless, these installations and stations must, so far as possible, observe the provisions of the regulations relative to giving help in case of distress and to the measures to be taken to prevent interference. They must also, so far as possible, observe the provisions of the regulations regarding the types of waves and the frequencies to be used, according to the class of service which such stations perform.

(2) Moreover, if these installations and stations carry out an exchange of public correspondence or take part in the special services governed by the Regulations annexed to the present Convention, they must conform, in general, to the provision of the regulations for the conduct of such services.

CHAPTER V

Final Provision

ARTICLE 40

Entry into Force of the Convention

The present Convention will come into force on the first of January, one thousand nine hundred and thirty-four.

In witness whereof the respective plenipotentiaries have signed the Convention in a single copy, which shall remain in the archives of the Government of Spain and of which a copy shall be delivered to each Government.

Done at Madrid the 9th of December, 1932.

For the Union of South Africa:
H. J. Lenton
A. R. McLachlan

For Germany:
Hermann Giess
Dr. Hans Carl Steidle
Dr. Paul Jäger
Dr. Hans Harbich
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W. Arthur Steel
Jean Désy

For Chile:
E. Bermùdez

For China:
Lingoh Wang

For the Vatican City State:
Giuseppe Gianfranceschi

For the Republic of Colombia:
José Joaquin Casas
Alberto Sànchez de Iriarte
W. MacLellan

For the French Colonies, Protectorates and French Mandated Territories:
G. Carour

For the Portuguese Colonies:
Ernesto Julio Navarro
Arnaldo de Paiva Carvalho
José Méndes de Vasconcellos Guimarães
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For the Swiss Confederation:
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For Curaçao and Surinam:
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For Cyrenaica:
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C. Lerche
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For the Dominican Republic:
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Juan de Olózaga

For Egypt:
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Mohamed Said

For the Republic of El Salvador:
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Walter Lichtenstein
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For the Empire of Ethiopia:
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For the Republic of Honduras:
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For Hungary:
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Ing. Jules Erdöss

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For the Dutch East Indies:
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G. Schotel
Hoogewooning

For the Irish Free State:
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E. Cúisín

For Iceland:
G. Hliddal

For Italy:
G. Gneme
G. Montefinale

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Zenshichi Ishii
Satoshi Furihata
Y. Yonezawa
T. Nakagami
Takeo Iino

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For Lithuania:
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For Luxemburg:
E. Jaaques

For Morocco:
Dubeauclard

For Mexico:
G. Estrada
Emilio Torres
Agustin Flores Jr.
S. Tayabas
For Nicaragua:
José García-Plaza
For Norway:
T. Engset
Hermod Petersen
Andr. Hadland
For New Zealand:
M. B. Esson
For the Republic of Panama:
M. Lasso de la Vega
For the Netherlands:
H. J. Boetje
H. C. Felser
C. H. de Vos
J. A. Bland van den Berg
W. Dogterom
For Peru:
Juan de Osma
For Persia:
Mohsen Khan Raïs
For Poland:
Ing. Henryk Kowalski
St. Manozarski
Kazimierz Goebel
K. Krulisz
Kazimierz Szymanski
For Portugal:
Miguel Vaz Duarte Bacellar
José de Liz Ferreira
David de Sousa Pires
Joaquim Rodrigues Gonçalves
For Roumania:
Ing. T. Tanasesco
For Italian Somaliland:
G. Gneme
For Sweden:
G. Wold
For Syria and Lebanon:
M. Morillon
For Czechoslovakia:
Ing. Strnad
Dr. Otto Kučera
Ing. Yaromir Svoboda
Vaclav Kučera
For Tripolitania:
G. Gneme
D. Crety
For Tunis:
Crouzet
For Turkey:
Fahri
I. Cemal
Mazhar
For the Union of Soviet Socialist Republics:
Eugène Hirschfeld
Alexandre Kokadeev
For Uruguay:
Ad referendum of the Government of Uruguay
Daniel Castellanos
For Venezuela:
César Marmol Cuervo
Antonio Reyes
For Yugoslavia:
D. A. Zlatanovitch

INTERNATIONAL TELECOMMUNICATION CONVENTION, 1932

The following ratifications have been deposited:—

Belgium	December 2, 1933
Belgian Congo and Ruanda-Urundi	December 2, 1933
Netherlands	December 23, 1933
Italy	December 26, 1933
Vatican City State	December 27, 1933
Finland	December 30, 1933
Czechoslovakia	January 5, 1934
Egypt	January 11, 1934
Denmark	February 6, 1934
Morocco	February 25, 1934
Japan	March 1, 1934
New Zealand	March 5, 1934
Canada	March 6, 1934
Iceland	March 9, 1934
Australia	March 20, 1934
Austria	March 23, 1934
Syria and Lebanon	May 22, 1934
Poland	May 31, 1934
Luxemburg	June 9, 1934
United States of America	June 14, 1934
India	June 20, 1934
Germany	June 27, 1934
Spain	June 27, 1934
Spanish Colonies and Spanish Zone of Morocco	June 27, 1934
Persia	July 20, 1934
Switzerland	August 1, 1934
Yugoslavia	August 28, 1934
Colombia	November 7, 1934
Ethiopia	November 14, 1934
Irish Free State	February 15, 1935
Panama	March 29, 1935
Albania	May 6, 1935
Venezuela	May 9, 1935
United Kingdom	May 29, 1935
South Africa	May 30, 1935
China	June 5, 1935
Hungary	June 10, 1935

The following States have acceded to the Convention:—

Bulgaria	December 13, 1933
Hayti	August 3, 1935

ANNEXE

(See Article 1, Section 2)

Definition of Terms Used in the International Telecommunication Convention

Telecommunication.—Any telegraphic or telephonic communication of signs, signals, writing, facsimiles and sounds of any kind, by wire, radio or other systems or processes of electric signalling or visual signalling (semaphores).

Radiocommunication.—Any telecommunication by means of Hertzian waves.

Radiotelegram.—A telegram originating in or destined for a mobile station, and transmitted over all or part of its course by the radiocommunication channels of the mobile service.

Government telegrams and radiotelegrams.—Those originating with:

(*a*) the Head of a State;

(*b*) a Minister who is a member of a Government;

(*c*) the Head of a colony, protectorate, overseas territory or territory under sovereignty, authority or mandate of the Contracting Governments;

(*d*) Commanders in Chief of military forces, land, sea or air;

(*e*) diplomatic or consular agents of the Contracting Governments;

(*f*) the Secretary General of the League of Nations, and also the replies to such communications.

Service telegrams and radiotelegrams.—Those originating with telecommunication Administrations of the Contracting Governments or of any private enterprise recognized by one of these Governments and relating to international telecommunication or to objects of public interest mutually agreed upon by such Administrations.

Private telegrams and radiotelegrams.—Telegrams and radiotelegrams other than service or Government telegrams and radiotelegrams.

Public correspondence.—Any telecommunication which the offices and stations, by virtue of their availability to the public, must accept for transmission.

Private enterprise.—Any individual or any company or corporation other than a governmental establishment or agency, recognized by the Government concerned, and operating telecommunication installations with a view to the exchange of public correspondence.

Administration.—A Government Administration.

Public service.—A service for the use of the public in general.

International service.—A telecommunication service between offices or stations of different countries or between stations of the mobile service, unless these latter are of the same nationality and are within the limits of the country to which they belong. An internal or national telecommunication service, which is capable of causing interference with other services outside the limits of the country in which it operates, is considered as an international service from the point of view of interference.

Restricted service.—A service which may only be used by specified persons or for particular purposes.

Mobile service.—A radiocommunication service effected between mobile stations and land stations and between mobile stations themselves, special services excluded.

GENERAL RADIOCOMMUNICATION REGULATIONS ANNEXED TO THE INTERNATIONAL TELECOMMUNICATION CONVENTION

ARTICLE 1

Definitions

The following definitions complete those mentioned in the Convention:—

Fixed station.—A station not capable of moving which communicates, by means of radiocommunication, with one or more stations similarly established.

Land station.—A station not capable of moving which performs a mobile service.

Coast station.—A land station performing a service with ship stations. It may be a fixed station assigned also for communication with ship stations; it is then considered as a coast station only during the period of its service with ship stations.

Aeronautical station.—A land station performing a service with aircraft stations. It may be a fixed station assigned also for communication with aircraft stations; it is then considered as an aeronautical station only during the period of its service with aircraft stations.

Mobile station.—A station capable of moving which ordinarily does move.

Station on board.—A station placed on board a ship not permanently moored or on board an aircraft.

Ship station.—A station placed on board a ship not permanently moored.

Aircraft station.—A station placed on board any aircraft.

Radiobeacon station.—A special station of which the emissions are intended to enable a ship or aircraft station to determine its bearing or a direction in relation to the radiobeacon station, and, if practicable, also the distance which separates it from the latter.

Direction-finding station.—A station provided with special apparatus intended to determine the direction of emissions of other stations.

Telephone broadcasting station.—A station performing a telephone broadcasting service.

Visual broadcasting station.—A station performing a visual broadcasting service.

Amateur station.—A station used by an "amateur," that is by a duly authorized person, interested in radioelectrical practice with a purely personal aim and without pecuniary interest.

Private experimental station.—A private station intended for experiments with a view to the development of radioelectric practice or science.

Private radiocommunication station.—A private station, not open to public correspondence, which is authorized solely to exchange with other "private radiocommunication stations" communications concerning the private business of the licensee or licensees.

Frequency assigned to a station.—The frequency assigned to a station is the mid-frequency of the band of frequencies in which the station is authorized to work. In general, this frequency is that of the carrier wave.

Band of frequencies of an emission.—The band of frequencies of an emission is the band of frequencies effectively occupied by that emission, for the type of transmission and the speed of signalling used.

Frequency tolerance.—The frequency tolerance is the maximum deviation permissible between the frequency assigned to a station and the actual frequency of emission.

Power of a radioelectric transmitter.—The power of a radioelectric transmitter is the power supplied to the aerial.

In the case of a modulated wave transmitter, the power in the aerial is expressed by two figures, one indicating the power of the carrier wave supplied to the aerial and the other the maximum percentage of modulation actually used.

Telegraphy.—Telecommunication by any system of telegraph signalling. The word "telegram" includes also "radiotelegram" except when the text expressly precludes such a meaning.

Telephony.—Telecommunication by any system of telephone signalling.

General telecommunication system.—The whole of the existing channels of telecommunication open to the public service, except the radiocommunication channels of the mobile service.

Aeronautical service.—A radiocommunication service effected between aircraft stations and land stations and by aircraft stations communicating between themselves. The term applies also to fixed and special radiocommunication services intended to ensure the safety of air navigation.

Fixed service.—A service of radioelectric communications of all kinds between fixed points, with the exception of broadcasting services and special services.

Special service.—A telecommunication service operating specially for the needs of a particular service of general interest not open to public correspondence, such as: a radiobeacon service, direction-finding, time signals, regular

meteorological bulletins, notices to navigators, press messages addressed to all stations, medical advice (radiomedical consultations), calibrated frequencies, emissions having a scientific object, etc.

Telephone broadcasting service.—A service carrying out the broadcasting of radiotelephone emissions specifically intended to be received by the public in general.

Visual broadcasting service.—A service carrying out the broadcasting of visual images, fixed or moving, specifically intended to be received by the public in general.

ARTICLE 2

Secrecy of radiocommunications

The Administrations undertake to adopt the measures necessary to prohibit and repress:

(*a*) the interception, without authority of radiocommunications not intended for the general use of the public;

(*b*) the divulgence of the contents, or simply of the existence, the publication or the use, without authorization, of radiocommunications intercepted deliberately or otherwise.

ARTICLE 3

Licence

1. (1) No sending station shall be established or worked by an individual person, or by any enterprise, without a special licence issued by the Government to which the station in question is subject.

(2) Mobile stations which have their port of registry in a colony, a territory under sovereignty or mandate, an overseas territory or a protectorate may be considered as subject to the authority of such colony, territories or protectorate, as regards the grant of licences.

2. The holder of a licence is required to preserve the secrecy of telecommunications, as provided in article 24 of the Convention. Moreover, the licence must provide that the interception of radiocommunication correspondence other than that which the station is authorized to receive, is forbidden, and that where such correspondence is involuntarily received, it must not be reproduced, communicated to others, or used for any purpose whatsoever, and even its existence must not be disclosed.

3. In order to facilitate the verification of licences issued to mobile stations, it is recommended that there should be added, where necessary, to the text written in the national language, a translation of the text in a language generally used in international relations.

4. The Government which issues a licence to a mobile station mentions therein the category in which such station is placed from the point of view of international public correspondence.

ARTICLE 4

Choice of Apparatus

1. The choice of radioelectric apparatus and devices to be used in a station is free, provided that the waves emitted comply with the provisions of the present Regulations.

2. Nevertheless, within the limits consistent with economic exigencies, the choice of transmitting, receiving and measuring apparatus must be guided by the latest technical progress, as indicated, for example, in the recommendations of the C.C.I.R.

ARTICLE 5

Classification of Emissions

1. Emissions are divided into two classes:

A. Continuous waves,

B. Damped waves,

defined as follows:

Class A.—Waves of which the successive oscillations are identical when the steady state is reached.

Class B.—Waves consisting of successive series of oscillations of which the amplitude, after having reached a maximum, decreases gradually.

2. Class A includes waves of the following types:

Type A1.—Continuous waves of which the amplitude or frequency is varied by telegraphic manipulation.

Type A2—Continuous waves of which the amplitude or frequency is varied in accordance with a periodic law at audible frequency, combined with telegraphic manipulation.

Type A3.—Continuous waves of which the amplitude or frequency is varied in accordance with a complex and variable law at audible frequency. Radiotelephony is an example of this type.

Type A4.—Continuous waves of which the amplitude or frequency is varied in accordance with any frequency law at supersonic frequencies. Television is an example of this type.

3. The foregoing classification into waves of types *A1*, *A2*, *A3* and *A4*, does not prevent the use, under conditions fixed by the Administrations concerned, of waves modulated or manipulated by methods not falling within the definitions of type *A1*, *A2*, *A3* and *A4*.

4. These definitions do not relate to systems of sending apparatus.

5. Waves will be designated, in the first place, by their frequency in kilocycles per second (kc/s). The approximate length in metres will be shown after this

designation in brackets. In the present Regulations, the approximate value of the wave-length in metres is the quotient obtained by dividing the number 300,000 by the frequency in kilocycles per second.

ARTICLE 6

Quality of Emissions

1. The waves emitted by a station must be maintained at the authorized frequency, as exactly as the state of technical development permits, and their radiation must also be as free as practicable from all emissions which are not essential to the type of communication effected.

2. (1) The Administrations fix, for the different services, the characteristics relative to the quality of the emissions, and especially the accuracy and the stability of the frequency of the wave emitted, the level of harmonics, the width of the total band of frequencies occupied, etc., so that they correspond with technical progress.

(2) The Administrations agree to consider the tables (Appendix 1: table of frequency tolerances, Appendix 2: table of frequency band-widths occupied by emissions) as a guide indicating, for the different cases, the limits to be observed so far as possible.

(3) As regards the frequency band-widths occupied by emissions, account must be taken, in practice, of the following conditions:

1st Width of the band given in Appendix 2.

2nd Variation of the frequency of the carrier wave.

3rd Supplementary technical conditions, such as the technical possibilities relative to the form of the characteristics of the filter circuits, for transmitters as well as receivers.

3. (1) The. Administrations will frequently verify that the waves emitted by stations subject to their authority are in accordance with the provisions of the present Regulations.

(2) Endeavour will be made to secure international collaboration in this matter.

4. In order to reduce interference in the band of frequencies above 6,000 kc/s (wavelengths below 50 m), it is recommended that, when the nature of the service permits, directive aerial systems should be used.

ARTICLE 7

Distribution and Use of Frequencies (Wave-Lengths) and Types of Emission

1. Subject to the provisions of section (5) of section 5 below, the Administrations of the contracting countries may assign any frequency and any type of wave to any radioelectric station under their authority, upon the sole condition that no interference with any service of another country results therefrom.

2. The Administrations agree, however, to assign to stations, which, by reason of their nature, are capable of causing serious international interference, frequencies and types of waves in conformity with the rules for the distribution and use of waves as set forth below.

3. The Administrations also undertake to assign frequencies to these stations, according to the type of service, in conformity with the table of distribution of frequencies (see table below).

4. In the case where bands of frequencies are assigned to a specific service, the stations engaged in such service must use frequencies which are sufficiently remote from the limits of such bands as not to produce serious interference with the working of stations engaged in services to which the immediately adjacent bands of frequencies are allotted.

5. (1) The frequencies assigned by the Administrations to all fixed, land and broadcasting stations and the maximum power contemplated must be notified to the Bureau of the Union for publication, when the stations in question are intended to carry out a regular service and are capable of causing international interference. The frequencies on which a coast station receives in carrying out a specialized service with ship stations using stabilized transmitters, must also be notified to the Bureau of the Union for publication. Frequencies must be chosen so as to avoid, as far as possible, interference with international services of the contracting countries which are being carried out by existing stations of which the frequencies have already been notified to the Bureau of the Union. The notification stipulated above must be made in accordance with the provisions of Article 15, section 1, (*b*) and Appendix 6 before the frequency is brought into use and early enough to permit Administrations to take all steps which seem to them to be necessary in order to ensure the proper working of their services.

(2) (*a*) When, however, the frequency which an Administration intends to assign to a station is a frequency outside the bands authorized by the present Regulations for the service in question, this Administration shall make the notification provided for in the preceding subparagraph, by means of a special announcement at least six months before the frequency is brought into use and, in urgent cases, at least three months before that date.

(*b*) The procedure for notification indicated above shall also be observed when an Administration has the intention of increasing the power, or of authorizing an increase in the power, or a change in the conditions of radiation of a station already working outside the authorized bands, even if the frequency used is to remain unaltered.

(*c*) In the case of stations which, at the time of entry into force of the present Regulations, are already

working outside the bands authorized therein, the frequency used and the power employed shall be immediately notified to the Bureau of the Union for publication, in so far as such notification has not already been made.

(3) (*a*) The Administrations concerned will agree among themselves, when necessary, as to the waves to be assigned to the stations in question as well as to the conditions of use of the waves so assigned.

(*b*) The Administrations of any region may conclude, in conformity with Article 13 of the Convention, regional arrangements concerning the distribution of bands of frequencies to the services of the countries participating, or of frequencies to stations of these countries, and the conditions of use of the waves so assigned. The provisions of section 1 and those of section 5 (1) and (2) apply also to all agreements of this kind.

(4) The Administrations concerned make the necessary arrangements to avoid interference and, if need be, will have recourse, for this purpose, in conformity with the procedure arranged between them by bilateral or regional agreements, to organizations either of technical experts or of both technical and conciliation experts. If no agreement for the avoidance of interference can be reached, the provisions of Article 15 of the Convention may be applied.

(5) (*a*) So far as concerns European broadcasting and without prejudice to any right which extra-European Administrations may possess by virtue of the present Regulations, the following methods, which may be abrogated or modified by agreement between the European Administrations and which in no way modify the provisions of subparagraph (2) above, are employed in the application of the principle enunciated in section 1.

(*b*) In the absence of previous agreement between the Administrations of the European contracting countries, the option contemplated in section 1 may not be used, within the limits of the European region, for the purpose of effecting a broadcasting service outside the bands authorized by the present Regulations on frequencies below 1,500 kc/s (wave-lengths above 200 m).

(*c*) The Administration which desires to establish such a service or to obtain a modification of the conditions fixed by a previous agreement relating to such a service (frequency, power, geographical position, etc.) informs the European Administrations through the medium of the Bureau of the Union. Any Administration which has not answered within six weeks of receiving the communication in question will be considered as having given its consent.

(*d*) In the case of a European broadcasting station working outside the authorized bands of frequencies, it is understood that such previous agreement will also be necessary on every occasion when, a change, which might affect the conditions of international interference, is to be made in the characteristics, which have been previously notified to the Bureau of the Union.

6. (1) In principle, the power of broadcasting stations must not exceed a value which permits in an economic manner of the maintenance of an effective national service of good quality within the limits of the country concerned.

(2) In principle, the sites of powerful broadcasting stations, and more especially of those which work near the limits of the bands of frequencies reserved for broadcasting, must be chosen so as to avoid, so far as possible, causing difficulty to broadcasting services of other countries or to other services working on adjacent frequencies.

7. The following table gives the distribution of frequencies (approximate wave-lengths) between the various services.

Allocation of Bands of Frequencies Between 10 and 60,000 kc/s (30,000 and 5 m)

Frequencies	Wave-lengths	SERVICES		
			Regional agreements	
kc/s	m	General allocation	European Region (*)	Other Regions
10–100	30,000–3,000	Fixed.		
100–110	3,000–2,727	(*a*) Fixed. (*b*) Mobile.		
110–125	2,727–2,400	Mobile.		
125–150 (1)	2,400–2,000	Maritime mobile (open to public correspondence exclusively).		

(*) *Definition of the European region*: The European region is defined on the North and West by the natural limits of Europe, on the East by the meridian 40° East of Greenwich and on the South by the parallel of 30° North so as to include the Western part of the U.S.S.R. and the territories bordering the Mediterranean, with the exception of the parts of Arabia and Hedjaz included in this sector.

(1) The wave of 143 kc/s (2,100 m) is the calling wave of mobile stations using long continuous waves.

Frequencies kc/s	Wavelengths m	SERVICES		
		General allocation	Regional agreements	
			European Region	Other Regions
150–160	2,000–1,875	Mobile.		
160–285 (4)	1,875–1,053		160–240 (1,875–1,250) Broadcasting (3). 240–255 (1,250–1,176) (a) not open to public correspondence. (b) Broadcasting (2), (3). 255–265 (1,176–1,132) (a) Aeronautical. (b) Broadcasting (2), (3). 265–285 (1,132–1,053) Aeronautical.	160–194 (1,875–1,546) (a) Fixed. (b) Mobile. 194–285 (1,546–1,053) (a) Aeronautical. (b) Fixed not open to public correspondence. (c) Mobile except commercial ship stations.
285–290 (5)	1,053–1,034		Aeronautical.	Radiobeacons.
290–315 (5)	1,034–952	Radiobeacons.	Maritime Radiobeacons.	
315–320 (5)	952–938		Maritime Radiobeacons.	Aeronautical.
320–325	938–923		Aeronautical.	(a) Aeronautical. (b) Mobile not open to public correspondence.
325–345 (6)	923–870	Aeronautical.		
345–365	870–822		Aeronautical.	(a) Aeronautical. (b) Mobile not open to public correspondence.

(2) The European Administrations will agree among themselves to place in the band from 240 to 265 kc/s (1,250 to 1,132 m) broadcasting stations which, by reason of their geographical position, will not trouble services not open to public correspondence or air services. On the other hand, these services will organise themselves so as not to interfere with reception from broadcasting stations thus selected, within the limits of the national territories of these broadcasting stations.

(3) Services open to public correspondence will not be permitted in the bands intended for broadcasting, comprised between 160 and 265 kc/s (1,875 and 1,132 m), even under cover of Article 7 Section 1.

(4) The band of frequencies from 160 to 265 kc/s (1,875 to 1,132 m) is also assigned to Australia and New Zealand for broadcasting as a regional distribution. The Administrations of these two countries agree to place the stations which will emit in this band so as to avoid interference with other services in other regions.

(5) A band 30 kc/s wide, comprised between the limits of 285 and 320 kc/s (1,053 and 938 m) is assigned in each region to the radiobeacon service. In the European region, this band is reserved for maritime radiobeacons only.

(6) The wave of 333 kc/s (900 m) is an international calling wave for aircraft services.

Frequencies kc/s	Wavelengths m	SERVICES		
		General Allocation	Regional agreements. European Region	Regional agreements. Other Regions
365–385	822–779	(*a*) Direction-finding. (*b*) Mobile subject to not troubling Direction-finding. Coast stations using B waves excluded		
385–400	779–750		Not open to public correspondence.	Mobile.
400–460	750–652	Mobile.		
460–485	652–619	Mobile A1 and A2 only.		
485–515 (7)	619–583	Mobile (distress, calling, etc.).		
515–550 (8)	583–545	Not open to public correspondence A1 and A2 only.		
550–1,500 (9)	545–200	(*a*) Broadcasting. (*b*) Wave of 1,364 kc/s (220 m) A1, A2 and B for mobile services exclusively (10).		
1,500-1,715 (11) (14)	200–174·9		1,500–1,530 (200–196·1). (*a*) Fixed. (*b*) Mobile A1 and A2 only.	(*a*) Fixed. (*b*) Mobile.
			1,530–1,630 (196·1–184·0) Mobile A1, A2, A3. (12)	
			1,630–1,670 (184·0–179·6) Maritime mobile calling wave (A3 only). (13)	
			1,670–1,715 (179·6–174·9). Maritime mobile (A3 only).	

(7) The wave of 500 kc/s (600 m) is the international calling and distress wave. The use of this wave is defined in Articles 19, 22 and 30.

(8) The European Administrations will agree among themselves to place in the band from 540 to 550 kc/s (556 to 545 m) broadcasting stations which, by reason of their geographical position, will not trouble either mobile services in the band from 485 to 515 kc/s (619 to 583 m) or services not open to public correspondence in the band from 515 to 550 kc/s (583 to 545 m).

On the other hand, the services not open to public correspondence will be organised so as not to interfere with reception from broadcasting stations thus selected within the limits of the national territory of these broadcasting stations.

(9) Mobile services may use the band from 550 to 1,300 kc/s (545 to 231 m) on condition that they do not interfere with the services of a country which uses this same band exclusively for broadcasting.

(10) On the frequency of 1,364 kc/s (220 m), waves of type B are forbidden between 6 p.m. and 11 p.m., local time, in all regions where their use is capable of interfering with broadcasting. In the North American region, however, only waves of type A1 are authorized during these hours.

(11) The frequency of 1,650 kc/s (182 m) is a calling wave for the mobile radiotelephone service with ship stations of low power. This calling wave is not obligatory and the date on which it shall become obligatory for each country will be settled by internal regulations.

Frequencies kc/s	Wave-lengths m	SERVICES		
		General Allocation	Regional agreements	
			European Region	Other Regions
1,715-2,000	174·9-150		1,715-1,925 (174·9-155·8) *(a)* Amateurs. *(b)* Fixed. *(c)* Mobile. 1,925-2,000 (155·8-150). *(a)* Amateurs. *(b)* Maritime mobile (A3 only).	*(a)* Amateurs. *(b)* Fixed. *(c)* Mobile.

(12) In principle, this band of frequencies is reserved for the telephone service with ship stations of low power. The European countries whose ships do not use this type of communication, will avoid, so far as possible, the use of telegraphy in this band in regions adjacent to those where this telephone service is worked.

(13) No traffic may be exchanged in the band 1,630 to 1,670 kc/s (184·0 to 179·6 m).

Calling on the wave of 1,650 kc/s (182 m) is not obligatory; its entry into force for each country will be settled by internal regulations.

(14) In the interior of Europe, the bands of frequencies from 1,530 to 1,630 kc/s and from 1,670 to 1,715 kc/s (196·1 to 184·0 m. and 179·6 to 174·9 m) may be used by short distance fixed services, on condition that they do not interfere with mobile services.

Note.—In addition to the exceptions stated in the notes on the preceding table, a European Conference, which will take place before the entry into force of the present Regulations, may decide, as an exceptional measure, to annex to its protocol certain special exceptions to *the regional bands* on which it may be able to decide, and which it thinks ought to appear therein.

Frequencies kc/s	Wave-lengths m	SERVICES
		General allocation
2,000-3,500	150-85·71	*(a)* Fixed. *(b)* Mobile.
3,500-4,000	85·71-75	*(a)* Amateurs. *(b)* Fixed. *(c)* Mobile.
4,000-5,500	75-54·55	*(a)* Fixed. *(b)* Mobile.
5,500-5,700	54·55-52·63	Mobile.
5,700-6,000	52·63-50	Fixed.
6,000-6,150	50-48·78	Broadcasting.
6,150-6,675	48·78-44·94	Mobile.
6,675-7,000	44·94-42·86	Fixed.
7,000-7,300	42·86-41·10	Amateurs.
7,300-8,200	41·10-36·59	Fixed.
8,200-8,550	36·59-35·09	Mobile.
8,550-8,900	35·09-33·71	*(a)* Fixed. *(b)* Mobile.
8,900-9,500	33·71-31·58	Fixed.
9,500-9,600	31·58-31·25	Broadcasting.

Frequencies kc/s	Wave-lengths m	SERVICES
		General allocation
9,600–11,000	31·25–27·27	Fixed.
11,000–11,400	27·27–26·32	Mobile.
11,400–11,700	26·32–25·64	Fixed.
11,700–11,900	25·64–25·21	Broadcasting.
11,900–12,300	25·21–24·39	Fixed.
12,300–12,825	24·39–23·39	Mobile.
12,825–13,350	23·39–22·47	*(a)* Fixed. *(b)* Mobile.
13,350–14,000	22·47–21·43	Fixed.
14,000–14,400	21·43–20·83	Amateurs.
14,400–15,100	20·83–19·87	Fixed.
15,100–15,350	19·87–19·54	Broadcasting.
15,350–16,400	19·54–18·29	Fixed.
16,400–17,100	18·29–17·54	Mobile.
17,100–17,750	17·54–16·90	*(a)* Fixed. *(b)* Mobile.
17,750–17,800	16·90–16·85	Broadcasting.
17,800–21,450	16·85–13·99	Fixed.
21,450–21,550	13·99–13·92	Broadcasting.
21,550–22,300	13·92–13·45	Mobile.
22,300–24,600	13·45–12·20	*(a)* Fixed. *(b)* Mobile.
24,600–25,600	12·20–11·72	Mobile.
25,600–26,600	11·72–11·28	Broadcasting.
26,600–28,000	11·28–10·71	Fixed.
28,000–30,000	10·71–10	*(a)* Amateurs. *(b)* Experiments.
30,000–56,000	10–5·357	Not reserved.
56,000–60,000	5·357–5	*(a)* Amateurs. *(b)* Experiments.

8. (1) The use of waves of type B is forbidden for all frequencies except the following:—

375 kc/s (800 m)
410 kc/s (730 m)
425 kc/s (705 m)
454 kc/s (660 m)
500 kc/s (600 m)
1,364 kc/s (220 m) (*)

(*) See note (10) to the table of distribution of frequencies.

(2) No new installations for the emission of type B waves may be fitted in ships or in aircraft, except when the

transmitters, working on full power, take less than 300 watts at audible frequency measured at the input of the supply transformer.

(3) The use of type B waves of all frequencies will be forbidden as from the 1st of January 1940, except for transmitters fulfilling the conditions as to power indicated in sub-paragraph (2) above.

(4) No new installation for the emission of type B waves may be fitted in a land or fixed station. Waves of this type shall be forbidden in all land stations as from the 1st of January, 1935.

(5) The Administrations will endeavour to abandon, as soon as possible, type B waves, other than the wave of 500 kc/s (600 m).

9. The use of type A1 waves only is authorized between 100 and 160 kc/s (3,000 and 1,875 m); the sole exception to this rule relates to waves of type A2 which may be used in the band from 100 to 125 kc/s (3,000 to 2,400 m) but only for the transmission of time signals.

10. In the band from 460 to 550 kc/s (652 to 545 m), no type of emission capable of rendering inoperative the distress, alarm, safety, or urgency signals, sent on 500 kc/s (600 m), is allowed.

11. (1) In the band from 325 to 345 kc/s (923 to 870 m) no type of emission capable of rendering inoperative the distress, safety, or urgency signals is allowed.

(2) This rule does not apply to regions where special agreements provide otherwise.

12. (1) In principle, any station conducting a service between fixed points on a wave with a frequency below 110 kc/s (wave-length above 2,727 m) must use one single frequency, chosen from the bands allocated to such service (section 7 above), for each of its transmitters capable of simultaneous operation.

(2) A station is not permitted to use for a service between fixed points, a frequency other than that assigned to it, as stated above.

13. In principle, stations use the same frequencies and the same types of emission for the transmission of messages by the one-way method as for their normal service. Regional arrangements may however be made for exempting the stations concerned from the application of this rule.

14. A fixed station may as a secondary service transmit to mobile stations on its normal working frequency subject to the following conditions:—

(*a*) the Administrations concerned consider it necessary to use this exceptional method of working;

(*b*) no increase of interference results.

15. In order to facilitate the exchange of synoptic meteorological messages in European areas, the frequencies

41·6 kc/s and 89·5 kc/s (7,210 m and 3,352 m) are assigned to this service.

16. To facilitate the rapid transmission and distribution of information necessary for the detection of crime and the pursuit of criminals, a frequency between 37·5 and 100 kc/s (wave-lengths between 8,000 and 3,000 m) shall be reserved for this purpose by regional arrangement.

17. Each Administration may assign to amateur stations bands of frequencies in conformity with the table of distribution (section 7 above).

18. With the object of reducing interference in the bands of frequencies above 4,000 kc/s (wave-lengths below 75 m), used by the mobile service, and, in particular, to avoid disturbing long-distance telephone communications in this service, the Administrations agree to adopt, so far as possible, the following rules, with due regard to current technical developments:—

(1) (*a*) In the bands of frequencies above 5,500 kc/s (wave-lengths below 54·55 m) assigned exclusively to the mobile service, ship stations participating in a commercial service shall use frequencies at the lower frequency (longer wave) ends of the bands and more especially those within the limits of the harmonic bands enumerated below:—

5,500	to	5,550	kc/s	(54·55 to 54·05 m)
6,170	to	6,250	kc/s	(48·62 to 48·00 m)
8,230	to	8,330	kc/s	(36·45 to 36·01 m)
11,000	to	11,100	kc/s	(27·27 to 27·03 m)
12,340	to	12,500	kc/s	(24·31 to 24·00 m)
16,460	to	16,660	kc/s	(18·23 to 18·01 m)
22,000	to	22,200	kc/s	(13·64 to 13·51 m)

Note.—The bands frequencies from 4,115 to 4,165 kc/s (72·90 to 72·03 m) may also be used by the stations mentioned above (see also (2) (*c*) below).

(*b*) Nevertheless, any commercial ship station of which the emission complies with the frequency tolerance required of land stations by section 2, (2) of Article 6, may transmit on the same frequency as the coast station with which it communicates.

(*c*) When communication, for which no special arrangement has been made, has to be established between a ship station on the one hand and another ship station or a coast station on the other hand, the mobile station shall use one of the following frequencies situated approximately in the middle of the bands:—

4,140 kc/s	(72·46 m)
5,520 kc/s	(54·35 m)
6,210 kc/s	(48·31 m)
8,280 kc/s	(36·23 m)
11,040 kc/s	(27·17 m)
12,420 kc/s	(24·15 m)
16,560 kc/s	(18·12 m)
22,080 kc/s	(13·59 m)

Note.—The Administrations agree to indicate, in notifying the frequency of a coast station, on which of the waves specified in sub-paragraph (1) (*c*) watch will be kept.

(2) (*a*) Ship stations participating in a commercial service shall not use the shared bands above 4,000 kc/s (wave-lengths below 75 m), unless their emissions comply with the frequency tolerances specified for land stations in section 2, (2) of Article 6. In such cases, the frequencies used must be chosen from those at the higher frequency (shorter wave) end of the shared band, and more especially from within the limits of the harmonic bands enumerated below:—

4,400 to 4,450 kc/s	(68·18 to 67·42 m)
8,800 to 8,900 kc/s	(34·09 to 33·71 m)
13,200 to 13,350 kc/s	(22·73 to 22·47 m)
17,600 to 17,750 kc/s	(17·05 to 16·90 m)
22,900 to 23,000 kc/s	(13·10 to 13·04 m)

(*b*) Frequencies may also be used from that part of the band reserved for mobile services from 6,600 to 6,675 kc/s (45·45 to 44·94 m) which is in harmonic relation with the above-mentioned bands.

(*c*) The provisions of sub-paragraph (2), (*a*) do not apply to the part of the common band between 4,115 and 4,165 kc/s (72·90 and 72·03 m) which may be used by all ship stations participating in the commercial service.

(3) In selecting the frequencies of new fixed stations and coast stations, the Administrations will avoid using the frequencies in the bands specified in sub-paragraphs (1), (*a*), (2) (*a*), (2), (*b*), and (2), (*c*).

19. (1) It is recognized that the frequencies between 6,000 and 30,000 kc/s (50 and 10 m) are very effective for long-distance communications.

(2) The Administrations will endeavour, so far as possible, to reserve the frequencies in this band for that purpose, except when their use for short or medium-distance communications is not liable to interfere with long-distance communications.

20. In Europe, Africa and Asia, directional radiobeacons of low power, of which the range does not exceed about 50 kilometres, may use any frequency in the band from 1,500 to 3,500 kc/s (wave-lengths from 200 to 85·71 m) with the exception of the protective band from 1,630 to 1,670 kc/s (wave-lengths from 184 to 180 m), subject to the agreement of the countries whose services are liable to interference therefrom.

Article 8

Amateur Stations and Private Experimental Stations

1. The exchange of communications between amateur stations and between private experimental stations

in different countries is forbidden if the Administration of one of the countries concerned has notified objection to such exchange.

2. (1) When such exchange is permitted, the communications must be conducted in plain language and must be limited to messages relating to the experiments and to remarks of a personal character for which, by reason of their unimportance, recourse to the public telegraph service would be out of the question. The licensees of amateur stations are absolutely forbidden to transmit international communications on behalf of third parties.

(2) The above provisions may be modified by special arrangements between the countries concerned.

3. In amateur stations and in private experimental stations, authorized to make emissions, any person operating the apparatus, either on his own account or for another, must have proved his ability to transmit passages in the Morse Code and to read, in radiotelegraph reception by ear, passages thus transmitted. He may be replaced only by authorized persons possessing the same qualifications.

4. The Administrations take such measures as they think necessary to verify the qualifications, from the technical point of view, of all persons operating the apparatus.

5. (1) The maximum power which amateur stations and private experimental stations may use is fixed by the Administrations concerned, having regard to the technical qualifications of the operators and the conditions under which the stations are to work.

(2) All the general rules of the Convention and the present Regulations apply to amateur stations and private experimental stations. In particular, the frequency of the waves emitted must be as constant and as free from harmonics as the state of technical development permits.

(3) During the course of their emissions, such stations must transmit, at short intervals, their call sign, or, in the case of experimental stations not yet provided with a call sign, their name.

Article 9

Conditions to be Observed by Mobile Stations

A. General

1. (1) Mobile stations must be established in such a way as to conform, in regard to frequencies and types of waves, to the general provisions contained in Article 7.

(2) Further, no new transmitter of type B waves shall be installed in a mobile station except when such transmitter, working on full power, has an audio frequency input to the supply transformer of less than 300 watts.

(3) Finally, the use of type B waves of all frequencies shall be forbidden as from the 1st of January, 1940, except for transmitters fulfilling the conditions regarding power stated above.

2. The frequency of emission of mobile stations shall be verified as often as possible by the inspection service to which they are subject.

3. Receiving apparatus must be such that the current which it produces in the aerial is as small as possible and does not inconvenience neighbouring stations.

4. Changes of frequency in the sending and receiving apparatus of all mobile stations must be capable of being made as rapidly as possible. All installations must be such that, when communication is established, the time necessary to change from transmission to reception and vice versa shall be as short as possible.

B. Ship Stations

5. (1) Sending apparatus used in ship stations working on waves of type A2 or B in the authorized bands between 365 and 515 kc/s (822 and 583 m) must be provided with devices readily permitting a material reduction of power.

(2) This provision does not apply to transmitters of which the power, measured on full load, does not exceed 300 watts at the anode of the transmitting valves (type A2 emission) or at the input to the supply transformers at audio-frequency (type B emission).

(3) All ship stations emitting on frequencies in the bands from 100 to 160 kc/s (3,000 to 1,875 m) and on frequencies above 4,000 kc/s (wavelengths below 75 m) must be provided with a wavemeter having an accuracy at least equal to 5/1000 or with an equivalent device.

6. Every station installed on board a ship, compulsorily equipped with radioelectric apparatus in accordance with an interntional agreement, must be able to send and receive on the wave of 500 kc/s (600 m), type A2 or B and, in addition, on at least one other wave, type A2 or B, in the authorized bands between 365 and 485 kc/s (822 and 619 m).

7. (1) In addition to the waves referred to above, ship stations equipped to emit waves of types A1, A2 or A3 may use the waves authorized in Article 7.

(2) The use of waves of type B is forbidden for all frequencies except the following:—

375 kc/s (800 m)
410 kc/s (730 m)
425 kc/s (705 m)
454 kc/s (660 m)
500 kc/s (600 m)
1364 kc/s (220 m) (*).

*See note (10) to the table of distribution of frequencies.

8. In ship stations, all apparatus installed for the transmission of waves of type A1 in the authorized bands between 100 and 160 kc/s (3,000 and 1,875 m) must allow of the use, in addition to the frequency of 143 kc/s (2,100 m), of at least two frequencies within these bands.

9. (1) All stations on board ships compulsorily equipped with radiotelegraph apparatus must be able to receive the wave of 500 kc/s (600 m) and, in addition, all the waves necessary to carry out the service which they perform.

(2) Such stations must be able to receive easily and efficiently on the same frequencies, waves of types A1 and A2.

C. Aircraft Stations

10. (1) (*a*) Every station installed in an aircraft making a passage over the sea and compulsorily equipped with radioelectric apparatus as the result of an international agreement, must be able to send and receive on the wave of 500 kc/s (600 m) type A2 or B.

(*b*) As regards the restriction on the use of waves of type B, see under B, section 7, (2) above.

(2) (*a*) Every aircraft station must be able to send and receive on the wave of 333 kc/s (900 m), type A2 or A3.

(*b*) This rule does not apply to aircraft stations flying over regions where local agreements, which provide otherwise, are in force.

Article 10

Operators' Certificates

A. General Provisions

1. (1) The service of every mobile radiotelegraph or radiotelephone station must be carried out by a radiotelegraph operator holding a certificate issued by the Government to which the station is subject. Nevertheless, in mobile stations equipped with a low-power radioelectric installation [power of the carrier wave in the aerial not exceeding 100 watts, except in the case of the regional agreements provided for in section 7, (4)], when this installation is used solely for telephony, the service may be carried out by an operator holding a radiotelephony certificate.

(2) If the operator is totally incapacitated in the course of a sea-passage, a flight or a journey, the master or person responsible for the mobile station may authorize, solely as a temporary measure, an operator holding a certificate issued by another contracting Government to carry out the radioelectric service. When it becomes necessary

to have recourse, as temporary operator, to a person not holding an adequate certificate, his service must be limited to cases of urgency. In any case, the above-mentioned operator or person must be replaced as soon as possible by an operator holding the certificate prescribed in section 1, (1) above.

2. Each Administration takes the necessary measures for placing operators under the obligation to preserve the secrecy of correspondence and for preventing, to the utmost of its ability, the fraudulent use of certificates.

3. (1) There are two classes of certificates and a special certificate for radiotelegraph operators, and two certificates (general and restricted) for radiotelephone operators.

(2) The conditions to be imposed for obtaining these certificates are contained in the following paragraphs; these conditions are the minimum requirements.

(3) Each Government is free to fix the number of examinations necessary to obtain the certificates.

(4) The holder of a first class radiotelegraph operator's certificate, and the holder of a second class radiotelegraph operator's certificate who possesses a radiotelephone operator's certificate, may carry out the radiotelephone service in any mobile station. In the latter case, the second class radiotelegraph operator's certificate and the radiotelephone operator's certificate may be combined.

B. First Class Radiotelegraph Operator's Certificate

4. The first class certificate is issued to operators who have given proof of the technical and professional knowledge and qualifications enumerated below:—

(*a*) Knowledge of the general principles of electricity, of the theory of radiotelegraphy and radiotelephony, and of the regulation and the practical working of the types of apparatus used in the mobile service.

(*b*) Theoretical and practical knowledge of the working of the accessory apparatus, such as motor-generators, accumulators, etc., used in the operation and adjustment of the apparatus specified in sub-paragraph (*a*).

(*c*) Practical knowledge necessary to effect, with the means available on board, the repair of damage which may occur to the apparatus during a voyage.

(*d*) Ability to send correctly and to receive correctly by ear code groups (mixed letters, figures and signs of punctuation), at a speed of 20 (twenty) groups a minute, and a plain language passage at a speed of 25 (twenty-five) words a minute. Each code group must comprise five characters, each figure or punctuation mark counting as two characters. The passage in plain language must average five characters to the word.

(*e*) Ability to send correctly and to receive correctly by telephone.

(*f*) Detailed knowledge of the Regulations applying to the exchange of radiocommunications, knowledge of the documents relative to the assessment of the charges for radiocommunications, knowledge of that part of the Convention for the Safety of Life at Sea which relates to radiotelegraphy, and, in the case of air navigation, knowledge of the special provisions governing the radioelectric service in air navigation. In the latter case, the certificate states that the holder has successfully passed the tests relating to these provisions.

(*g*) Knowledge of the general geography of the world, especially the principal navigation routes (maritime or air, according to the type of certificate) and the most important telecommunication routes.

C. Second Class Radiotelegraph Operator's Certificate

5. The second class certificate is issued to operators who have given proof of the technical and professional knowledge and qualifications enumerated below:—

(*a*) Elementary theoretical and practical knowledge of electricity and radiotelegraphy, and knowledge of the adjustment and practical working of the types of apparatus used in the mobile radiotelegraph service.

(*b*) Elementary theoretical and practical knowledge of the working of the accessory apparatus, such as motor-generator sets, accumulators, etc., used in the operation and adjustment of the apparatus mentioned in sub-paragraph (*a*).

(*c*) Practical knowledge sufficient for effecting minor repairs in case of damage occurring to the apparatus.

(*d*) Ability to send correctly and to receive correctly by ear code groups (mixed letters, figures and signs of punctuation) at a speed of 16 (sixteen) groups a minute. Each code group must comprise five characters, each figure or punctuation mark counting as two characters.

(*e*) Knowledge of the Regulations applying to the exchange of radiocommunications, knowledge of the documents relative to the assessment of the charges for radiocommunications, knowledge of that part of the Convention for the Safety of Life at Sea which relates to radiotelegraphy and, in the case of air navigation, knowledge of the special provisions governing the radioelectric service in air navigation. In the latter case, the certificate states that the holder has successfully passed the tests relating to these provisions.

(*f*) Knowledge of the general geography of the world, especially the principal navigation routes (maritime or air, according to the type of certificate) and the most important telecommunication routes.

D. Radiotelegraph Operator's Special Certificate

6. (1) (*a*) The radiotelegraph service of ships, aircraft and all other vehicles for which a radiotelegraph installation is not prescribed by international agreements, may be carried out by operators holding a radiotelegraph operator's special certificate. This certificate is issued to operators capable of carrying out radiocommunication at the speed of transmission and reception required for obtaining a second class radiotelegraph operator's certificate.

(*b*) It rests with each Government concerned to fix the other conditions for obtaining this certificate.

(2) As an exception, the Government of New Zealand is provisionally permitted to issue a special certificate for which it fixes the requirements for operators of small ships of its nationality which do not go far from the coast of that country and which participate only to a limited extent in the international service of public correspondence and in the general work of mobile stations.

E. Radiotelephone Operators' Certificates

7. (1) The general radiotelephone operator's certificate is issued to operators who have given proof of the professional knowledge and qualifications enumerated below [see also section 3, (4)]:

(*a*) Practical knowledge of radiotelephony, especially as regards the avoidance of interference.

(*b*) Knowledge of the regulation and working of radiotelephone apparatus.

(*c*) Ability to send correctly and to receive correctly by telephone.

(*d*) Knowledge of the Regulations applying to the exchange of radiotelephone communications and of the part of the Radiocommunication Regulations relating to the safety of life.

(2) For radiotelephone stations of which the power of the carrier wave in the aerial does not exceed 50 watts, each Government concerned may itself fix the conditions for obtaining a radiotelephone operator's certificate (radiotelephone operator's restricted certificate).

(3) A radiotelephone operator's certificate must show whether it is a general certificate or a restricted certificate.

(4) In order to meet special needs, the conditions to be fulfilled for obtaining a radiotelephone operator's certificate, intended to be used in radiotelephone stations fulfilling certain technical conditions and certain working conditions, may be fixed by regional agreements. These conditions and agreements are mentioned in the documents issued to such operators. Such agreements are permitted subject to the proviso that there must not be interference with international services.

(5) Radiotelephone operators' certificates already issued to operators in conformity with the conditions fixed by the General Regulations of Washington (1927) remain in force and are regarded as radiotelephone operators' general certificates.

F. Service Qualifications

8. (1) Before becoming chief operator of a ship station of the first category (Article 23, section 3), a first class operator must have had at least one year's experience as operator on board ship or in a coast station.

(2) To become chief operator of a ship station of the second category (Article 23, section 3), a first class operator must have had at least six months' experience as operator on board ship or in a coast station.

(3) (*a*) Operators holding a second class certificate are authorized to embark as chief operators in ships of the third category (Article 23, section 3).

(*b*) After proving six months' service on board ship, they may embark as chief operators in ships of the second category.

(4) The Government which issues a certificate may, before authorizing an operator to carry out the service on board an aircraft, require the operator to fulfil other conditions (for example: to complete a certain number of flying hours in the air mobile service, etc.).

Article 11

Authority of the Master

1. The radioelectric service of a mobile station is placed under the supreme authority of the master or of the person responsible for the ship, aircraft, or other vehicle carrying the mobile station.

2. The master or the person responsible, and all persons who are in a position to have knowledge of the text or merely of the existence of the radiotelegrams, or of any information whatever obtained by means of the radioelectric service, are placed under the obligation of observing and ensuring the secrecy of correspondence.

Article 12

Inspection of Stations

1. (1) The Governments or competent administrations of the countries where a mobile station calls may require the production of the licence. The operator of the mobile station, or the person responsible for the station, must facilitate this examination. The licence must be kept in such a way that it can be produced without delay.

The production of the licence, however, may be substituted by the permanent exhibition in the station of a copy of the licence, duly certified by the authority which has issued it.

(2) In default of such production, or when manifest irregularities are proved, the Governments or Administrations may proceed to inspect the radioelectric installations in order to satisfy themselves that these conform to the conditions imposed by the present Regulations.

(3) In addition, the inspectors have the right to require the production of the operators' certificates, but proof of professional knowledge may not be demanded.

2. (1) When a Government or an Administration has found it necessary to adopt the course indicated in section 1 above, or when the operators' certificates cannot be produced, it immediately informs the Government or Administration to which the mobile station in question is subject. In addition, the procedure specified in Article 13 is followed when necessary.

(2) The Government or Administration official who has inspected the station must, before leaving it, communicate the result of his inspection to the master or to the person responsible (Article 11) or to their substitute.

3. With regard to the technical and operating conditions to which mobile stations holding licences must conform for international radiocommunication service, the contracting Governments undertake not to impose upon foreign mobile stations which are temporarily within their territorial waters or make a temporary stay on their territories, conditions more severe than those contemplated in the present Regulations. These provisions do not affect in any way the provisions which, as they are within the province of international agreements relating to maritime or air navigation, are not covered by the present Regulations.

Article 13

Reports of Infringements

1. Infringements of the Convention or the Radiocommunication Regulations are reported to their Administration by the stations which detect them, by means of forms similar to the specimen given in Appendix 3.

2. In the case of important breaches by the same station, representations must be made to the Administration of the country to which the station is subject.

3. If an Administration has information of a breach of the Convention or Regulations, committed in a station which it has authorized, it ascertains the facts, fixes the responsibility, and takes the necessary steps.

ARTICLE 14

Call Signs

1. (1) All stations open to the service of international public correspondence, and also private experimental stations, amateur stations and private radiocommunication stations, must have call signs taken from the international series assigned to each country in the following table of distribution. In this table, the first letter or the first two letters provided for the call signs show the nationality of the stations.

(2) When a fixed station uses more than one frequency in the international service, each frequency is identified by a separate call sign, used solely for such frequency.

Table of Distribution to Call Signs

Country	Call signs	Country	Call signs
Chile	CAA–CEZ	Netherlands	PAA–PIZ
Canada	CFA–CKZ	Curaçao	PJA–PJZ
Cuba	CLA–CMZ	Dutch East Indies	PKA–POZ
Morocco	CNA–CNZ	Brazil	PPA–PYZ
Cuba	COA–COZ	Surinam	PZA–PZZ
Bolivia	CPA–CPZ	(Abbreviations)	Q
Portuguese Colonies	CQA–CRZ	Union of Soviet Socialist Republics	R
Portugal	CSA–CUZ	Sweden	SAA–SMZ
Uruguay	CVA–CXZ	Poland	SOA–SRZ
Canada	CYA–CZZ	Egypt	STA–SUZ
Germany	D	Greece	SVA–SZZ
Spain	EAA–EHZ	Turkey	TAA–TCZ
Irish Free State	EIA–EIZ	Iceland	TFA–TFZ
Republic of Liberia	ELA–ELZ	Guatemala	TGA–TGZ
Persia	EPA–EQZ	Costa-Rica	TIA–TIZ
Estonia	ESA–ESZ	France and Colonies and Protectorates	TKA–TZZ
Ethiopia	ETA–ETZ	Union of Soviet Socialist Republics	U
Territory of the Saar	EZA–EZZ	Canada	VAA–VGZ
France and Colonies and Protectorates	F	Commonwealth of Australia	VHA–VMZ
Great Britain	G	Newfoundland	VOA–VOZ
Hungary	HAA–HAZ	British Colonies and Protectorates	VPA–VSZ
Swiss Confederation	HBA–HBZ	British India	VTA–VWZ
Ecuador	HCA–HCZ	Canada	VXA–VYZ
Republic of Hayti	HHA–HHZ	United States of America	W
Dominican Republic	HIA–HIZ	Mexico	XAA–XFZ
Republic of Colombia	HJA–HKZ	China	XGA–XUZ
Republic of Panama	HPA–HPZ	British India	XYA–XZZ
Republic of Honduras	HRA–HRZ	Afghanistan	YAA–YAZ
Siam	HSA–HSZ	Dutch East Indies	YBA–YHZ
Vatican City State	HVA–HVZ	Iraq	YIA–YIZ
Hedjaz	HZA–HZZ	New Hebrides	YJA–YJZ
Italy and Colonies	I	Latvia	YLA–YLZ
Japan	J	Free City of Danzig	YMA–YMZ
United States of America	K	Nicaragua	YNA–YNZ
Norway	LAA–LNZ	Roumania	YOA–YRZ
Argentine Republic	LOA–LWZ	Republic of El Salvador	YSA–YSZ
Luxemburg	LXA–LXZ	Jugo-Slavia	YTA–YUZ
Lithuania	LYA–LYZ	Venezuela	YVA–YWZ
Bulgaria	LZA–LZZ	Albania	ZAA–ZAZ
Great Britain	M	British Colonies and Protectorates	ZBA–ZJZ
United States of America	N	New Zealand	ZKA–ZMZ
Peru	OAA–OCZ	Paraguay	ZPA–ZPZ
Austria	OEA–OEZ	Union of South Africa	ZSA–ZUZ
Finland	OFA–OHZ		
Czechoslovakia	OKA–OKZ		
Belgium and Colonies	ONA–OTZ		
Denmark	OUA–OZZ		

2. Call signs consist of:

(*a*) three letters, in the case of land stations;

(*b*) three letters, or three letters followed by a single figure (other than 0 or 1), in the case of fixed stations;

(*c*) four letters, in the case of ship stations;

(*d*) five letters, in the case of aircraft stations;

(*e*) five letters, preceded and followed by the "underline" signal in the Morse Code (- - — — - — —), in the case of stations on board aircraft performing a flight concerning the work of the League of Nations;

(*f*) four letters, followed by a single figure (other than 0 or 1), in the case of other mobile stations;

(*g*) one or two letters and a single figure (other than 0 or 1), followed by a group of not more than three letters, in the case of private experimental stations, amateur stations and private radiocommunication stations; the prohibition of the use of the figures 0 and 1, however, does not apply to amateur stations.

3. (1) In the aircraft radio service, after communication has been established by means of the complete call sign [see section 2, (*d*) and (*e*)], the aircraft station may use an abbreviated sign consisting:

(*a*) in radiotelegraphy, of the first and last letters of the complete five-letter sign;

(*b*) in radiotelephony, of all or part of the name of the owner of the aircraft (company or individual person), followed by the last two letters of the registration mark.

(2) For an aircraft performing a service concerning the work of the League of Nations, the words "League of Nations" take the place of the name of the owner of the aircraft.

4. (1) The twenty-six letters of the alphabet, and figures in the cases indicated in section 2, may be used to form call signs; accented letters are excluded.

(2) The following combinations of letters may not, however, be used as call signs:

(*a*) combinations beginning with A or B, these two letters being reserved for the geographical part of the International Code of Signals;

(*b*) combinations used in the International Code of Signals, part two;

(*c*) combinations which might be confused with distress signals or with other signals of the same nature;

(*d*) combinations reserved for the abbreviations to be used in the radiocommunication services.

5. (1) Each country selects the call signs of its stations from the international series assigned to it and notifies to the Bureau of the Union the call signs which it has allotted to its stations.

(2) The Bureau of the Union takes care that the same call sign is not allotted more than once and that call signs which might be mistaken for distress signals, or for other signals of the same nature, are not allotted.

Article 15

Service Documents

1. The Bureau of the Union prepares and issues the following service documents:

(*a*) lists of all land, mobile, and fixed stations having a call sign from the international series, whether or not open to public correspondence; lists of stations performing special services, broadcasting services and radiocommunication services between fixed points;

(*b*) the list of frequencies. This list shows all the frequencies allotted to stations intended to carry out a regular service which are capable of causing international interference;

(*c*) a list of telegraph offices and land stations open to international service;

(*d*) a map of coast stations open to public correspondence;

(*e*) a table and a map, as annexes to the list of coast stations and ship stations, indicating the zones and the hours of service on board ships of the second category (see Appendices 4 and 5);

(*f*) an alphabetical list of call signs of the stations mentioned under (a) to which a call sign from the international series has been allotted. This list is prepared without regard to nationality. It is preceded by the table of distribution of call signs given in Article 14;

(*g*) general radiocommunication statistics.

2. (1) The lists of stations [section 1, (*a*)] are published in separate parts as follows:

I. List of coast stations and ship stations.

II. List of aeronautical stations and aircraft stations.

III. List of stations performing special services.

IV. List of fixed stations (Index to the list of frequencies for fixed stations actually in service).

V. List of broadcasting stations.

(2) In the lists I, II, and III each class of station is placed in a separate section.

3. The form to be used for the various Lists of Stations and the List of Frequencies is shown in Appendix 6. Detailed information regarding the compilation of these documents is given in the prefaces, in the column headings and in the notes to the documents.

4. Administrations notify to the Bureau of the Union monthly, by means of schedules identical with those given in Appendix 6, the additions, modifications and deletions to be made in the documents mentioned above

5. (1) The List of Coast Stations and Ship Stations and the List of Aeronautical Stations and Aircraft Stations are published afresh every six months without supplements between two editions. As regards the List of Stations performing Special Services and the List of Broadcasting Stations, the Bureau of the Union decides at what intervals these lists shall be republished.

(2) A recapitulatory supplement is published every three months for the List of Stations performing Special Services and every six months for the List of Broadcasting Stations.

(3) The List of Frequencies and the List of Fixed Stations which forms an index to the List of Frequencies, as regards fixed stations actually in service, are republished separately each year. They are kept up to date by means of monthly supplements also published separately.

6. (1) The names of coast stations and aeronautical stations are followed by the words RADIO and AERADIO respectively.

(2) The names of direction-finding stations and radiobeacons are followed by the words GONIO and PHARE respectively.

7. Appendix 7 contains the symbols used in the documents to indicate the nature and the extent of the service of stations.

8. The service documents with which mobile stations must be provided are enumerated in Appendix 8.

ARTICLE 16

General Radiotelegraph Procedure in the Mobile Service (1) (2)

1. (1) In the mobile service, the procedure detailed below is obligatory, except in the case of distress calls or of distress traffic, to which the provisions of Article 22 are applicable.

(2) For the exchange of radiocommunications, stations of the mobile service use the abbreviations given in Appendix 9.

2. (1) Before sending, every station must make sure that it will not cause troublesome interference with transmissions in progress within its range; if such interference is likely, the station awaits the first break in the transmission with which it might interfere.

(1) This procedure is applicable to short waves so far as possible.
(2) The provisions of Sections 2 and 8 are applicable to radiotelephone transmissions in the mobile service.

(2) If, however, in spite of this precaution, the station's emissions happen to interfere with a redioelectric transmission already in progress, the following rules are applied:—

(*a*) Within the zone of communication of a land station open to the service of public correspondence or of any aeronautical station, the station whose emission causes the interference must cease sending at the first request of the said land station or aeronautical station.

(*b*) Where a radioelectric transmission already in progress between two ships happens to be interfered with by the emission of another ship, the latter must cease sending at the first request of either of the others.

(*c*) The station which requests this cessation must indicate the approximate duration of the wait imposed on the station whose emission it stops.

3. Radiotelegrams of all kinds transmitted by ship stations are numbered in series daily, the number 1 being given to the first telegram sent each day to each separate land station.

4. Calling a Station and Signals Preparatory to Traffic

(1) *Form of call*

The call is made as follows:

Call sign of the station called, not more than three times;
the word DE;
call sign of the station calling, not more than three times.

(2) *Wave to be used for calling and for preparatory signals*

For making the call and for transmitting preparatory signals, the station calling uses the wave on which the station called keeps watch.

(3) *Indication of the wave to be used for traffic*

The call, as described in sub-paragraph (1) above, must be followed by the service abbreviation indicating the frequency and/or the type of wave which the station calling proposes to use for the transmission of its traffic.

When, as an exception to this rule, the call is not followed by an indication of the wave to be used for the traffic:

(*a*) *if the station calling is a land station:*

it means that this station proposes to use for traffic, its normal working wave indicated in the List of Stations;

(*b*) *if the station calling is a mobile station:*

it means that the wave to be used for traffic is to be chosen by the station called.

(4) *Indication of the number of telegrams or of transmission in series, if necessary*

When the station calling has more than one telegram to transmit to the station called, the above mentioned preparatory signals are followed by the service abbreviation and figure giving the number of telegrams.

In addition, when the station calling wishes to send its telegrams in series, it indicates this by adding the service abbreviation for requesting the consent of the station called.

5. Reply to Calls and Signals Preparatory to Traffic

(1) *Form of reply to calls*

The reply to calls is made as follows:—

Call sign of the station calling, not more than three times;

the word DE;

call sign of the station called.

(2) *Wave for reply*

For transmitting the reply to calls and to preparatory signals, the station called uses the wave on which the station calling must keep watch.

As an exception to this rule, when a mobile station calls a coast station on the wave of 143 kc/s (2,100 m), the coast station transmits its reply to the call on its normal working wave in the bands 100 to 160 kc/s (3,000 to 1,875 m), as indicated in the List of Stations.

(3) *Agreement on the wave to be used for traffic*

A. If the station called is in agreement with the station calling, it transmits:—

(*a*) the reply to the call;

(b) the service abbreviation indicating that from that moment onwards it will listen on the frequency and/or the type of wave announced by the station calling;

(*c*) if necessary, the indications referred to in subparagraph (4);

(*d*) the letter K if the station called is ready to receive the traffic of the station calling;

(*e*) if useful, the service abbreviation and figure indicating the strength of the signals received (see Appendix 10).

B. If the station is not in agreement, or if it has to choose the wave to be used for traffic, it transmits:—

(*a*) the reply to the call;

(*b*) the service abbreviation indicating the frequency and/or the type of wave proposed(*);

(*c*) if necessary, the indications referred to in sub-paragraph (4).

When agreement is reached regarding the wave which the station calling shall use for its traffic, the station called transmits the letter K after the indications contained in its reply.

(4) *Reply to the request for transmission in series*

The station called, in replying to a station calling which has proposed to transmit its radiotelegrams in series [section 4, (4)], indicates, by means of the service abbreviation, its refusal or acceptance and, in the latter case it specifies, if necessary, the number of radiotelegrams which it is ready to receive in a series.

(5) *Difficulties in reception*

(*a*) If the station called is not ready to receive, it replies to the call as indicated in sub-paragraph (3) above, but it replaces the letter K by the signal - — - - - (wait), followed by a number indicating in minutes the probable duration of the wait. If the probable duration exceeds 10 minutes (5 minutes in the aeronautical mobile service), the reason for the wait must be given.

(*b*) When a station receives a call without being certain that such call is intended for it, it must not reply until the call has been repeated and is understood. When, on the other hand, a station receives a call which is addressed to it, but is uncertain of the call sign of the station calling, it must reply immediately, using the service abbreviation in place of the call sign of this latter station.

6. Transmission of Traffic

(1) *Traffic wave*

(*a*) Every station of the mobile service uses, in principle, for the transmission of its traffic, one of its working waves, indicated in the List of Stations, for the band in which the call has been made.

(*b*) In addition to its normal working wave, printed in heavy type in the List of Stations, every station may use supplementary waves in the same band, in conformity with the provisions of Article 19, section 1, (10).

(*c*) The use of calling waves for traffic is governed by Article 19.

(*) Where the choice of the wave to be used for traffic rests with the station called, and if, exceptionally, the latter station does not give the relative indication, the traffic is sent on the wave used for the call.

(2) *Long radiotelegrams*

(*a*) In principle, any radiotelegram containing more than 100 words is regarded as forming a series, or terminates a series in progress.

(*b*) As a general rule, long radiotelegrams, whether in plain language or in code or cypher, are transmitted in sections, each section containing 50 words in the case of plain language and 20 words or groups where code or cypher is used.

(*c*) At the end of each section the signal - - — — - - (?) meaning "Have you received the radiotelegram correctly up to this point?" is transmitted. If the section has been correctly received, the receiving station replies by sending the letter K and the transmission of the radiotelegram is continued.

(3) *Suspension of traffic*

When a station of the mobile service transmits on a working wave of a land station and so causes interference with the land station, it must suspend working at the request of the latter.

7. End of Traffic and Work

(1) *Signal for the end of transmission*

(*a*) The transmission of a radiotelegram is terminated by the signal - — - — - (end of transmission), followed by the call sign of the sending station and the letter K.

(*b*) In the case of transmission by series, the end of each radiotelegram is indicated by the signal - — - — - and the end of the series by the call sign of the sending station and the letter K.

(2) *Acknowledgment of receipt*

(*a*) The acknowledgment of receipt of a radiotelegram is given by transmitting the letter R, followed by the number of the radiotelegram; the acknowledgment of receipt is preceded by this formula: call sign of the station which has been sending, word DE, call sign of the station which has been receiving.

(*b*) The acknowledgment of receipt of a series of radiotelegrams is given by transmitting the letter R followed by the number of the last radiotelegram received. This acknowledgment of receipt is preceded by the above formula.

(*c*) The acknowledgment of receipt is given by the receiving station on the same wave as the reply to the call [see section 5, (2) above].

(3) *End of work*

(*a*) The end of work between two stations is indicated by each of them by means of the signal ···—·— (end of work), followed by its own call sign.

(*b*) For these signals the sending station continues to use the traffic wave and the receiving station the wave used for the reply to the call.

(*c*) The signal ···—·— (end of work) is also used when the transmission of radiotelegrams of general information, meteorological information and general safety notices is finished and when transmission is ended in the long distance radiocommunication service with deferred acknowledgment of receipt or without acknowledgment of receipt.

8. Duration of Work

(1) (*a*) In no case, in the maritime mobile service, must working on 500 kc/s (600 m) exceed ten minutes.

(*b*) In no case, in the aircraft mobile service, must working on 333 kc/s (900 m) exceed five minutes.

(2) On frequencies other than 500 kc/s (600 m) and 333 kc/s (900 m), the duration of periods of working is fixed:

(*a*) between a land station and a mobile station, by the land station,

(*b*) between mobile stations, by the receiving station.

9. Tests

When it is necessary to make test signals, either for the adjustment of a transmitter before making a call, or for the adjustment of a receiver, these signals must not continue for more than 10 seconds and must be composed of a series of VVV followed by the call sign of the station emitting the test signals.

Article 17

General Call "To All Stations"

1. Two types of call signal "To all stations" are recognized: 1st call CQ followed by the letter K (see sections 2 and 3);

2nd call CQ not followed by the letter K (see section 4).

2. Stations desiring to enter into communication with stations of the mobile service, without, however, knowing the names of any such stations within their range of action, may use the enquiry signal CQ, in place of the call sign of the station called in the calling formula, the call being followed by the letter K (general call to all stations in the mobile service with request for reply).

3. In regions where traffic is congested, the use of the call CQ followed by the letter K is forbidden except in combination with signals denoting urgency.

4. The call CQ not followed by the letter K (general call to all stations without request for reply) is used before the transmission of information of all kinds intended to be read or used by anyone who can intercept them.

Article 18

Calling

1. (1) As a general rule, it rests with the mobile station to establish communication with the land station. The mobile station may call the land station, for this purpose, only after coming within the radius of action of the land station.

(2) Nevertheless, a land station having traffic for a mobile station which has not made its presence known, may call this station if it has reason to believe that the mobile station is within range and is keeping watch.

2. (1) In addition, land stations may transmit their calls in the form of "traffic lists" consisting of the call signs of all mobile stations for which they have traffic on hand, at prearranged times, separated by intervals of at least two hours, as fixed by agreement between the Governments concerned. Land stations which transmit their calls on the wave of 500 kc/s (600 m) transmit them in the form of "traffic lists" in alphabetical order and include only the call signs of those mobile stations for which they have traffic on hand and which are within their range of action. They send, after their own call sign, service abbreviations indicating the working wave which they wish to use for transmission. Land stations which use continuous waves outside the band 365 to 515 kc/s (822 to 583 m) transmit such call signs in the order most convenient to them.

(2) The times at which land stations transmit their traffic lists and the frequencies and types of waves which they use for this purpose must be stated in the List of Stations.

(3) Mobile stations which hear their call sign during this transmission, must reply as soon as they can do so, following so far as possible the order in which they were called.

(4) When the traffic cannot be sent immediately, the land station informs each mobile station concerned of the approximate time at which working may begin, and, if necessary, the frequency and type of wave which will be used for working with it.

3. When a land station receives calls from several mobile stations at practically the same time, it decides the

order in which these stations may transmit their traffic to it, being guided in this decision solely by the necessity for allowing each of the stations calling to exchange with it the greatest possible number of radiotelegrams.

4. (1) On first establishing communication with a land station, any mobile station may, if it thinks this desirable because confusion is feared, send its name in full as it appears in the List of Stations.

(2) The land station may, by means of the abbreviation PTR, ask the mobile station to furnish it with the following particulars:

(*a*) approximate distance in nautical miles and bearing in relation to the land station or its position given in latitude and longitude;

(*b*) next port of call.

(3) The particulars referred to in sub-paragraph (2) are furnished on the authority of the master or the person responsible for the vehicle carrying the mobile station and only in cases where they are asked for by the land station.

5. In communications between land stations and mobile stations, the mobile station complies with the instructions given by the land station, in all questions relating to the order and time of transmission, to the choice of frequency (wave-length) and/or the type of wave, and to the suspension of work. This provision does not apply to cases of distress.

6. In communications between mobile stations, except in cases of distress, the station called controls the working as indicated in section 5 above.

7. (1) When a station called does not reply to a call sent three times at intervals of two minutes, the calling must cease and must not be resumed until after an interval of fifteen minutes (five minutes for the aeronautical mobile service). The station calling, before resuming the call, must make certain that the station called is not at that moment in communication with another station.

(2) The call may be repeated at shorter intervals if there is no reason to think that it will interfere with communications in progress.

8. When the name and address of the organization controlling a mobile station are not given in the List of Stations or are no longer in accordance with the particulars given therein, it is the duty of the mobile station to furnish, of its own accord, to the land station to which it transmits traffic, all the necessary information in this respect, using for this purpose the appropriate abbreviations.

ARTICLE 19

Use of Waves in the Mobile Service

1. (1) In the bands between 365 and 515 kc/s (822 and 583 m), type B waves are permitted only on the following frequencies:

375, 410, 425, 454 and 500 kc/s (800, 730, 705, 660 and 600 m).

(2) The general calling wave, which must be used by all ship stations and all coast stations engaged in radiotelegraphy on the authorized bands between 365 and 515 kc/s (822 and 583 m), and by aircraft desiring to enter into communication with coast stations or ship stations, is the wave of 500 kc/s (600 m) (A1, A2 or B).

(3) The wave of 333 kc/s (900 m) is the international calling wave for aircraft services, except as indicated in Article 9, section 10, (2).

(4) The wave of 143 kc/s (2,100 m) (type A1 only), is the international calling wave used in long distance communications in the mobile service on the bands 100 to 160 kc/s (3,000 to 1,875 m).

(5) The waves of 500 kc/s (600 m) is the international distress wave; it is used for this purpose by ship stations and aircraft stations which require the assistance of maritime services. It may be used in a general way only for calls and answers, for distress traffic and for urgency and safety signals and messages.

(6) Nevertheless, on condition that signals of distress, urgency and safety, and calls and answers are not interfered with, the wave of 500 kc/s (600 m) may be used:

(*a*) in regions where traffic is congested for the transmission of a single short radiotelegram; (1)

(*b*) in other regions for other purposes, but with discretion.

(7) Except for the wave 500 kc/s (600 m), the use of waves of all types between 485 and 515 kc/s (620 and 583 m) is forbidden.

(8) Except for the wave of 143 kc/s (2,100 m), the use of all waves between 140 and 146 kc/s (2,143 and 2,055 m) is forbidden.

(9) Coast stations and ship stations working in the authorized bands between 365 and 515 kc/s (822 and 583 m) must be able to use at least one wave besides that of 500 kc/s (600 m); when an additional wave is printed in heavy type in the List of Stations, it is the normal working wave of the station. The additional waves thus chosen for coast stations may be the same as those of ship stations or they may be different. In any case, the working waves of coast stations must be chosen so as to avoid interference with neighbouring stations.

(1) The regions where traffic is congested are indicated in the List of Coast Stations; these regions comprise the working areas of coast stations indicated as not accepting traffic on 500 kc/s (600 m) (see Appendix 7).

(10) Besides their normal working wave printed in heavy type in the List, land stations and ship stations may use, in the authorized bands, additional waves which are shown in ordinary type in the List. The band of frequencies 365 to 385 kc/s (822 to 779 m), however, is reserved for the direction-finding service; it may not be used by the mobile service for radiotelegraph correspondence except on the conditions indicated in Article 7.

(11) (*a*) The wave for replying to a call made on the general calling wave [see section 1, (2)] is the wave of 500 kc/s (600 m), the same as that of the call.

(*b*) The wave for replying to a call for aircraft stations and aeronautical stations working in the band 315 to 365 kc/s (952 to 822 m), is the wave of 333 kc/s (900 m), the same as that of the call.

(*c*) The wave for replying to a call sent on the international calling wave of 143 kc/s (2,100 m) [see section 1, (4)] is:

for a mobile station, the wave of 143 kc/s (2,100 m);

for a coast station, its normal working wave.

2. (1) In order to increase the safety of life at sea (ships) and over the sea (aircraft), all stations in the mobile maritime service normally keeping watch on waves in the authorized bands between 365 and 515 kc/s (822 and 583 m) must, during their hours of service, take the necessary measures to ensure watch on the distress wave [500 kc/s (600 m)] for three minutes twice an hour beginning at x h 15 and x h 45, Greenwich mean time.

(2) During the periods mentioned above, except for the emissions provided for in Article 22 (sections 22 to 28):

A. Transmission must cease within the bands 460 to 550 kc/s (652 to 545 m);

B. Outside these bands:

(*a*) the emission of waves of type B is prohibited;

(*b*) other emissions of stations of the mobile service may continue; stations of the maritime mobile service may listen to these emissions subject to the express proviso that they first ensure watch on the distress wave as provided by sub-paragraph (1) of this paragraph.

3. As calls within the authorized bands between 365 and 515 kc/s (822 and 583 m) and 315 to 365 kc/s (952 to 822 m) are made normally on the international calling waves [section 1, (2) and (3) above] mobile service stations open to public correspondence and using for their work waves in these bands, must, during their hours of service, remain on watch on the calling wave of their service. These stations, while observing the provisions of Article 19, section 2 (1) and (2), and section 4, D, are authorized to relinquish this watch only when they are engaged in communication on other waves.

4. The following rules must be observed in the working of stations of the mobile service using waves of type A1 in the bands 100 to 160 kc/s (3,000 to 1,875 m):

A. (*a*) Every coast station conducting communications on one of these waves must keep watch on the wave of 143 kc/s (2,100 m), unless the List of Stations indicates otherwise.

(*b*) The coast station transmits all its traffic on the wave or waves specially assigned to it.

(*c*) A coast station to which one or more waves within the band 125 to 150 kc/s (2,400 to 2,000 m) are assigned, possesses a right of preference over this wave or these waves.

(*d*) Any other station of the mobile service transmitting public traffic on this wave or these waves, and thus causing interference with such coast station, must suspend its work at the request of the latter.

B. (*a*) When a mobile station desires to establish communication on one of these waves with another station of the mobile service, it must use the wave of 143 kc/s (2,100 m), unless the List of Stations indicates otherwise.

(*b*) This wave, designated as the general calling wave, must be used exclusively in the North Atlantic:

1st for making individual calls and for replying to such calls;

2nd for the transmission of signals preparatory to the transmission of traffic.

C. A station of the mobile service after establishing communication with another station of the mobile service on the general calling wave of 143 kc/s (2,100 m) must, so far as possible, transmit its traffic on some other wave in the authorized bands provided that it does not disturb the working in progress of another station.

D. As a general rule, all mobile stations equipped for service on waves of type A1 in the bands from 100 to 160 kc/s (3,000 to 1,875 m) and not engaged in communication on another wave must, in order to permit of exchange of traffic with other stations of the mobile service, revert every hour to the wave of 143 kc/s (2,100 m) for 5 minutes beginning at x h 35, Greenwich mean time, during their specified hours of watch, according to the category to which the station in question belongs.

E. (*a*) Land stations must, so far as possible, transmit their calls in the form of traffic lists; in that case the stations transmit their traffic lists at specified times, published in the List of Stations, on the wave or waves assigned to them in the bands from 100 to 160 kc/s (3,000 to 1,875 m), but not on the wave of 143 kc/s (2,100 m).

(*b*) Land stations may, however, call mobile stations individually at any time, outside the times fixed for the transmission of their traffic lists, according to circumstances or to the work which they have to perform.

(*c*) The wave of 143 kc/s (2,100 m) may be used for individual calls and shall be preferred for this purpose during the period indicated in section 4, D.

5. Radiocommunications of aeronautical stations and aircraft stations are, in principle, exchanged as follows:

(1) For aircraft stations:

(*a*) By radiotelephony (calling and working) for aircraft of which the crew does not include a radiotelegraph operator.

(*b*) By radiotelegraphy on continuous waves for aircraft of which the crew includes a radiotelegraph operator.

Calling: waves of type A2.

Working: waves of type A1 (type A2 is permitted in the case of short wave working).

(2) For aeronautical stations:

(*a*) By radiotelephony (calling and working) when the station has to communicate with an aircraft of which the crew does not include a radiotelegraph operator.

(*b*) By radiotelegraphy, when the station has to communicate with an aircraft of which the crew includes a radiotelegraph operator.

Waves of type A1 (calling and working).

Waves of type A2 are permitted (calling and working) in the case of short waves.

Article 20

Interference

1. (1) The exchange of unnecessary signals or correspondence is forbidden in all stations.

(2) Tests and experiments are allowed in mobile stations only in so far as they do not disturb the service of other stations. As regards stations other than mobile stations, each Administration considers, before authorizing them, whether the proposed tests or experiments are liable, or not, to interfere with the service of other stations.

2. It is recommended that public correspondence traffic should be transmitted on waves of type A1 rather than on waves of type A2, and on waves of type A2 rather than on waves of type B.

3. All stations in the mobile service are bound to exchange traffic with the minimum of radiated energy necessary to ensure good communication.

4. Except in the case of distress, communications between ship stations must not interfere with the working

of land stations. When such interference does occur, the ship stations which are the cause of the interference must stop transmitting or must change their wave at the first request of the land station concerned.

5. Signals for testing and regulation must be chosen in such a manner that no confusion will arise with a signal, abbreviation, etc., having a special meaning defined by the present Regulations or by the International Code of Signals.

6. (1) When it is necessary to send signals for testing or regulating apparatus, and there is risk of interference with the working of a neighbouring land station, the consent of that land station must be obtained before such signals are sent.

(2) Every station carrying out emissions for tests, adjustments or experiments, must transmit its call sign or, if necessary, its name, at frequent intervals during the course of these emissions.

7. The Administration or enterprise making a complaint regarding interference must, in order to support and justify the complaint:

(*a*) give details of the kind of interference observed (frequency, variations in adjustment, call of interfering station, etc.);

(*b*) declare that the station interfered with is actually using the frequency assigned to it;

(*c*) state that it habitually uses receiving apparatus of a type equivalent to the best employed in the current practice of the service concerned.

8. The administrations take such measures as they think necessary and as are in conformity with their national laws, to require that electrical apparatus capable of causing serious interference with an authorized radiocommunication service, shall be used in such a way as to avoid such interference.

Article 21

Emergency Installation

1. The Convention for the Safety of Life at Sea determines which ships must be provided with emergency installations, and defines the conditions to be fulfilled by installations of this class.

2. In the use of emergency installations, all the provisions of the present Regulations must be observed.

Article 22

Distress Signal and Traffic. Alarm, Urgency and Safety Signals

A. General

1. No provision of the present Regulations shall hinder the use by a mobile station in distress, of any

means at its disposal to attract attention, make known its situation, and obtain assistance.

2. (1) The speed of telegraph transmission in cases of distress, urgency or safety, must not normally exceed 16 words a minute.

(2) The speed of transmission for the alarm signal is indicated in section 21, (1).

B. Waves to be Used in Case of Distress

3. (1) *Ships.*—In case of distress, the wave to be used is the international distress wave, that is to say, 500 kc/s (600 m) (see Article 19); it must be used preferably in type A2 or B. Ships which cannot transmit on the international distress wave use their normal calling wave.

(2) *Aircraft.*—Every aircraft in distress must transmit the distress call on the wave on which the fixed or mobile stations capable of rendering it assistance keep watch: 500 kc/s (600 m) for stations of the maritime service, 333 kc/s (900 m) for stations of the aeronautical service [except as indicated in Article 9, section 10, (2)]. The waves to be used are types A2 or A3.

C. Distress Signal

4. (1) In radiotelegraphy, the distress signal consists of the group ···———···; in radiotelephony, the distress signal consists of the spoken expression MAYDAY (corresponding to the French pronunciation of the expression "m'aider").

(2) The signal of distress means that the ship, aircraft or other vehicle sending, is threatened by grave and imminent danger and requests immediate assistance.

D. Distress Call

5. (1) The distress call, when it is sent by radiotelegraphy on 500 kc/s (600 m), is, as a general rule, immediately preceded by the alarm signal as defined in section 21, (1).

(2) When circumstances permit, the transmission of the call is separated from the end of the alarm signal by an interval of two minutes' silence.

(3) The distress call comprises:—

the distress signal sent three times,
the word DE, and
the call sign of the mobile station in distress, sent three times.

(4) This call has absolute priority over other transmissions. All stations which hear it must immediately cease all transmissions capable of interfering with the distress traffic and must listen on the wave used for the emission of the distress call. This call must not be addressed to a particular station and requires no acknowlment of receipt.

E. Distress Message

6. (1) The distress call must be followed as soon as possible by the distress message. This message comprises the distress call followed by the name of the ship, aircraft, or vehicle in distress, particulars of its position, the nature of the distress and the kind of assistance desired, and, by any other information which might facilitate the rescue.

(2) If, after transmitting its distress message, an aircraft is unable to give its position, it endeavours to send its call sign for a period long enough to permit direction-finding stations to determine its position.

7. (1) As a general rule, a ship or an aircraft at sea signals its position in latitude and longitude (Greenwich), using figures for the degrees and minutes, together with one of the words NORTH or SOUTH, and one of the words EAST or WEST; the degrees are separated from the minutes by a full stop. When practicable, the true bearing and the distance in nautical miles from a known geographical point may be given.

(2) As a general rule, an aircraft in flight over the land signals its position by the name of the nearest place, and its approximate distance in relation thereto, accompanied as necessary by one of the words NORTH, SOUTH, EAST or WEST or, when practicable, by words indicating intermediate directions.

8. The distress call and message are sent only on the authority of the master or person responsible for the ship, aircraft or other vehicle carrying the mobile station.

9. (1) The distress message must be repeated at intervals, until an answer is received, and especially during the periods of silence prescribed in Article 19, section 2.

(2) The alarm signal may also be repeated, if necessary.

(3) The intervals must, however, be long enough to allow stations preparing to reply time to start their sending apparatus.

(4) When the ship in distress receives no answer to a distress message sent on the wave of 500 kc/s (600 m), the message may be repeated on any other available wave on which attention might be gained.

10. A mobile station which learns that another mobile station is in distress may transmit the distress message in either of the following cases:

(*a*) the station in distress is not itself in a position to transmit it;

(*b*) the master (or his substitute) of the ship, aircraft, or other vehicle carrying the mobile station which intervenes believes that further help is necessary.

11. (1) Stations which receive a distress message from a mobile station which is, beyond possible doubt, in their vicinity, must at once acknowledge receipt of the message (see sections 18 and 19 below), taking care not to interfere with the transmission of similar acknowledgments of receipt sent by other stations.

(2) Stations which receive a distress message from a mobile station which is, beyond possible doubt, not in their vicinity, must let a short time pass before acknowledging receipt of the message, in order to permit stations nearer to the mobile station in distress to answer and acknowledge receipt without interference.

F. Distress Traffic

12. Distress traffic comprises all messages relative to the immediate assistance required by the mobile station in distress.

13. In distress traffic, every radiotelegram must include the distress signal sent at the beginning of the preamble.

14. The control of the distress traffic rests with the mobile station in distress or with the mobile station which, by application of the provisions of section 10, sub-paragraph (*a*), has issued the distress call. These stations may delegate the control of the distress traffic to another station.

15. (1) If it believes it to be essential, any station of the mobile service near the ship, aircraft, or vehicle in distress, may impose silence either on all stations of the mobile service in the vicinity or on any station which impedes the distress traffic. In either case, use is made of the service abbreviation (QRT) followed by the word DISTRESS; the instruction being addressed "to all stations" or to one station only, according to circumstances.

(2) When the station in distress wishes to impose silence, it uses the procedure just described, substituting the distress signal - - - — — — — - - - for the word DISTRESS.

16. (1) Every station which hears a distress call must comply with the provisions of section 5, (4).

(2) Every station of the mobile service which has knowledge of distress traffic, must follow such traffic, even if it does not take part in it.

(3) Throughout the duration of distress traffic, all stations which have knowledge of this traffic but do not take part in it, are forbidden:

(*a*) to use the distress wave [500 kc/s (600 m)] or the wave on which the distress traffic is taking place;

(*b*) to use waves of type B.

(4) A station of the mobile service which, while following distress traffic of which it has knowledge, is able also to continue its normal service, may do so, when the

distress traffic is well established, on the following conditions:—

(*a*) the use of the waves indicated in (3) is forbidden;

(*b*) the use of waves of type A1, with the exception of those which might disturb the distress traffic, is permitted;

(*c*) the use of waves of type A2 or A3 is permitted only in the band or bands assigned to the mobile service which do not include a frequency used for distress traffic [the band around 500 kc/s (600 m) extends from 385 to 550 kc/s (779 to 545 m)].

17. When silence is no longer necessary, or the distress traffic has ceased, the station which has controlled such traffic sends on the distress wave and, if necessary, on the wave used for the distress traffic, a message addressed "to all stations" indicating that the distress traffic has ceased. This message takes the following form:—

call to all stations CQ (three times),
word DE,
call sign of the station sending the message,
distress signal,
time of handing-in of the message,
name and call sign of the station which was in distress,
the words "distress traffic ended".

G. Acknowledgment of Receipt of a Distress Message

18. The acknowledgment of receipt of a distress message is given in the following form:—

call sign of the mobile station in distress (three times),
word DE,
call sign of the station acknowledging receipt (three times),
group RRR,
distress signal.

19. (1) Every mobile station which acknowledges receipt of a distress message must, on the order of the master or his substitute, make known as soon as possible the following details in the order shown:

its name,
its position in the form described in section 7,
the maximum speed at which it is proceeding towards the ship (aircraft or other vehicle) in distress.

(2) Before sending this message, the station must make certain that it will not interfere with the emissions

of other stations better situated to render immediate assistance to the station in distress.

H. Repetition of a Distress Call or a Distress Message

20. (1) Every station of the mobile service which is not in a position to render assistance and which has heard a distress message which has not been immediately acknowledged, must take all possible steps to attract the attention of stations of the mobile service which are in a position to render assistance.

(2) For this purpose, with the approval of the authority responsible for the station, the distress call or the distress message may be repeated; this repetition is made on full power either on the distress wave or on one of the waves which may be used in case of distress (section 3 of the present Article); at the same time all necessary steps will be taken to notify the authorities who may be able to intervene usefully.

(3) A station which repeats a distress call or a distress message, adds to it the word DE and its own call sign transmitted three times.

I. Automatic-Alarm Signal

21. (1) The alarm signal is composed of a series of twelve dashes transmitted in one minute, the duration of each dash being four seconds and the duration of the interval between two dashes, one second. It may be sent by hand or by an automatic apparatus.

(2) This special signal has for its sole purpose the actuation of the automatic devices giving the alarm. It must be used solely either to announce that a distress call or message is about to follow or to announce the emission of an urgent cyclone warning; in the latter case it may be used only by coast stations duly authorized by their Government.

(3) In cases of distress, the use of the alarm signal is governed by section 5, (1); in the case of urgent cylone warnings, the emission of the warning must not begin until two minutes after the termination of the alarm signal.

(4) Automatic devices intended for the reception of the alarm signal must fulfil the following conditions:—

1st respond to the alarm signal even when many stations are working and when there is atmospheric interference;

2nd not be actuated by " atmospherics " or by strong signals other than the alarm signal;

3rd possess a sensitiveness equal to that of a receiver with crystal detector connected with the same aerial;

4th give warning when their operation ceases to be normal.

(5) Before an automatic alarm receiver is approved for use in ships, the Administration to which the ships are subject must satisfy itself by practical tests made under suitable conditions of interference, that the apparatus fulfils the provisions of the present Regulations.

(6) The adoption of the type of alarm signal mentioned in (1) does not prevent an Administration from authorizing the use of an automatic apparatus which would comply with the conditions fixed above and would be operated by the regulation distress signal ---——————---

J. Urgency Signal

22. (1) In radiotelegraphy, the urgency signal consists of three repetitions of the group XXX, sent with the letters of each group and the successive groups clearly separated from each other; it is sent before the call.

(2) In radiotelephony, the urgency signal consists of three repetitions of the expression PAN (corresponding to the French pronunciation of the word "panne"); it is sent before the call(1).

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

(4) In particular, an aircraft sending a message to indicate that it is in difficulty and on the point of landing (or alighting in the sea) compulsorily, but that it has no need of immediate assistance, sends the urgency signal before its message.

(5) The urgency signal sent by an aircraft and not followed by a message means that the aircraft is obliged to land (or alight in the sea), is unable to send a message, but has no need of immediate assistance.

(6) The urgency signal has priority over all other communications, except distress, and all mobile or land stations which hear it must take care not to interfere with the transmission of the message which follows the urgency signal.

(7) Where the urgency signal is used by a mobile station, it must, as a general rule, be addressed to a specific station.

23. When the urgency signal is used, the messages preceded by this signal must, as a general rule, be drawn up in plain language, except in the case of medical messages exchanged between ships or between a ship and a coast station.

24. (1) Mobile stations which hear the urgency signal must continue to listen for at least three minutes.

(1) In the aeronautical service the signal PAN is at present also used as the radiotelegraph urgency signal; in this case, the 3 letters must be well separated so that the letters AN may not be changed into the letter P.

At the end of this period, if no urgency message has been heard, they may resume their normal service.

(2) Nevertheless, land, ship and aircraft stations which are in communication on waves other than that used for the transmission of the urgency signal and of the call which follows it, may continue their normal work without interruption.

25. (1) The urgency signal may be transmitted only on the authority of the master or the person responsible for the ship, aircraft, or other vehicle bearing the mobile station.

(2) In the case of a land station, the urgency signal shall be transmitted only with the approval of the responsible authority.

K. Safety Signal

26. (1) In radiotelegraphy, the safety signal consists of three repetitions of the group TTT, sent with the letters of each group and the successive groups clearly separated from each other. This signal is followed by the word DE and by the call sign of the station which emits it, sent three times. It indicates that the station is about to transmit a message concerning the safety of navigation or giving important meteorological warnings.

(2) In radiotelephony, the word SECURITE (corresponding to the French pronunciation of the word "sécurité") repeated three times is used as the safety signal.

27. The safety signal and the message which follows it are sent on the distress wave or on one of the waves which may, if necessary, be used in case of distress (see section 3 of the present Article).

28. (1) In the maritime mobile service, in addition to the messages of which the transmission is made at fixed times, the safety signal must be transmitted towards the end of the first silence period which occurs (Article 19, section 2) and the message is transmitted immediately after the silence period; in the case prescribed in Article 30, A, section 4, (3) section 5, (1) B, section 7, the safety signal and the message which follows it must be transmitted with the least delay possible, but must be repeated, as just indicated, at the first silence period following.

(2) All stations hearing the safety signal must continue to listen on the wave on which the safety signal has been emitted until the message announced by it is ended; they must also remain silent on all waves capable of interfering with the message.

(3) The preceding rules are applicable to the aircraft service, in so far as they are not contrary to regional arrangements ensuring for air navigation at least an equal measure of protection.

ARTICLE 23

Working Hours of Stations in the Mobile Service

1. In order to permit the application of the following rules on the subject of hours of watch, every station of the mobile service must have an accurate clock and the necessary steps must be taken to keep it correctly regulated to Greenwich mean time.

A. Land Stations

2. (1) The service of land stations is, so far as possible, continuous (day and night). Certain land stations, however, may have a service of limited duration. Each Administration or private enterprise, duly authorized to that effect, fixes the hours of service for land stations under its jurisdiction.

(2) Land stations whose service is not continuous may not close before:

1st finishing all operations resulting from a distress call;

2nd exchanging all radiotelegrams originating in, or destined for mobile stations which are situated within their range and have indicated their presence before the actual cessation of work.

(3) The service of aeronautical stations is continuous during the entire period of flight in the sector or sectors of the route or routes for which the station in question carries on the service of radiocommunication.

B. Ship Stations

3. (1) For the international service of public correspondence, ship stations are divided, in accordance with the internal regulations of the Administrations to which they are subject, into three categories:

stations of the first category: these stations maintain a continuous service;

stations of the second category: these stations have working hours of limited duration as indicated in subparagraph (2) below;

stations of the third category: these stations have working hours of less duration than those of stations of the second category or working hours of which the duration is not fixed by the present Regulations.

(2) (*a*) Ship stations of the second category must provide a service at least during the hours assigned to them in Appendix 4. Mention of these hours is made in the licence.

(*b*) In case of short voyages, they provide a service during the hours fixed by the Administration to which they are subject.

(3) When practicable, the hours of service of ship stations of the third class may be mentioned in the List of Stations.

(4) As a general rule, when a coast station has traffic on hand for a station of the third category not having fixed hours of service and assumed to be within range of the coast station, the latter calls the ship station in the course of the first half hour of the first and third periods of watch for ships of the second category performing an eight-hour service in accordance with the provisions of Appendix 4.

4. (1) The provisions of section 2, sub-paragraph (2), of the present Article apply to ship stations strictly as regards the distress service, and, so far as possible, as regards the spirit of number 2 of the sub-paragraph.

(2) It rests with each of the contracting Governments to ensure the efficiency of the service of ship stations of its own nationality, by requiring the presence in such stations of the necessary number of operators, with due regard to its national regulations on this subject.

C. Aircraft Stations

5. For the international service of public correspondence, aircraft stations are divided, in accordance with the national regulations of the Administrations to which they are subject into two categories:

stations of the first category: these stations provide a continuous service;

stations of the second category: these stations have limited working hours of which the duration is not fixed by the present Regulations.

D. Common Provisions

6. (1) A mobile station which has no fixed working hours must inform the land station with which it has entered into communication, of the time of closing and reopening of its service.

(2) (*a*) Every mobile station which is about to close its service in consequence of its arrival must so notify the nearest land station, and, if necessary, the other land stations with which it generally communicates. It must not close until after the disposal of traffic on hand.

(*b*) On its departure, it must notify its reopening to the station or stations referred to above.

E. Class and Minimum Number of Operators

7. So far as concerns the international public correspondence service of mobile stations, the staff of these stations must include at least:

1st for ship stations of the 1st category; one operator holding a 1st class certificate;

2nd for ship stations of the 2nd category; one operator holding a 1st or 2nd class certificate;

3rd (*a*) for ship stations of the 3rd category, except in the cases provided for in sub-paragraphs (*b*) and (*c*) below, one operator who has passed the examination for the 2nd class certificate;

(*b*) for ship stations for which the radiotelegraph installation is not compulsory as the result of international agreements, one operator holding a special certificate in conformity with the provisions of Article 10, D, section 6, (1);

(*c*) for ship stations equipped with a low-power radiotelephone installation, one operator holding a radiotelephone operator's certificate in conformity with Article 10, E, section 7;

4th (*a*) for aircraft stations, except in the cases provided for in sub-paragraphs (*b*) and (*c*) below, one operator holding a 1st or 2nd class certificate, according to the internal regulations of the Governments to which the stations are subject;

(*b*) for aircraft stations for which the radiotelegraph installation is not compulsory as the result of international agreements, one operator holding a special certificate in conformity with the provisions of Article 10, D, section 6, (1);

(*c*) for aircraft stations equipped with a low-power radiotelephone installation, one operator holding a radiotelephone operator's certificate in conformity with the conditions of Article 10, E, section 7.

Article 24

Order of Priority of Communications in the Mobile Service

The Order of priority of radiocommunications in the mobile service is as follows:—

1st distress calls, distress messages and distress traffic;
2nd communications preceded by an urgency signal;
3rd communications preceded by the safety signal;
4th communications relative to direction-finding bearings;
5th Government radiotelegrams for which the right of priority has not been renounced;
6th all other communications.

Article 25

Indication of the Station of Origin of Radiotelegrams

1. When, because of duplication of names, the name of a station is followed by the call sign of the station, the call sign is separated from the name of the station by

a fraction bar. Example: Oregon/OZOC (not Oregonozoc); Rose/DDOR (not Roseddor).

2. In retransmission, over the general communications system, of a radiotelegram received from a mobile station, the land station transmits, as office of origin, the name of the mobile station in which the radiotelegram originates as this name appears in the List of Stations, followed by the name of the land station.

3. The land station may, if it thinks it desirable, complete the indication of the name of the mobile station of origin by the word "ship", or "aeroplane", or "dirigible" placed before the name of the station of origin, in order to avoid any confusion with a telegraph office or a fixed station of the same name.

Article 26

Routing of Radiotelegrams

1. As a general rule, a mobile station which uses waves of type A2, A3 or B within the band from 365 to 515 kc/s (822 to 583 m) transmits its radiotelegrams to the nearest land station. In order to expedite or facilitate the transmission of the radiotelegrams, however, it may transmit them to another mobile station. The latter treats the radiotelegrams so received like those which originate with itself (see also Article 7 of the Additional Regulations).

(2) If, however, the mobile station has the choice between several land stations at approximately the same distance, it must give the preference to that which is established on the territory of the country of destination or of normal transit of the radiotelegrams. When the station chosen is not the nearest, the mobile station must cease working or must change the type or frequency of emission upon the first request made by the land station which is actually the nearest of those engaged on the particular kind of service, this request being based upon the interference which the working in question causes to the land station.

2. Mobile stations using either waves of type A1 or waves of type A2 or A3, outside the band from 365 to 515 kc/s (822 to 583 m) must, as a general rule, give the preference to the land station established on the territory of the country of destination or of the country likely to be the most suitable transit route for the radiotelegrams.

3. If the sender of a radiotelegram handed in at a mobile station has indicated the land station to which he desires his radiotelegram to be sent, the mobile station must, in order to effect this transmission to the land station indicated, wait, if necessary, until the conditions specified in the preceding paragraphs are fulfilled.

ARTICLE 27

Accounting for Radiotelegrams

A. Establishment of Accounts

1. In principle, land station and ship and aircraft charges do not enter into the international telegraph accounts.

2. The Governments reserve to themselves the right to make between themselves and with the private enterprises concerned different arrangements with a view to the adoption of other provisions concerning accounting, more especially the adoption, so far as possible, of the system under which the land station and ship and aircraft charges follow the radiotelegrams from country to country through the medium of the telegraph accounts.

3. In the absence of a different arrangement in accordance with the provisions of section 2 above, the accounts relating to these charges are prepared month by month by the Administrations to which the land stations are subject and are communicated by them to the Administrations concerned.

4. Where the enterprise working the land stations is not the Administration of the country, this enterprise may be substituted, in respect of accounts, for the Administration of the country.

5. In the case of radiotelegrams originating in ship and aircraft stations, the Administration to which the land station is subject debits the Administration to which the ship or aircraft station of origin is subject with the land station charges, with the charges relating to transmission over the general telecommunications system—which will hereafter be called telegraph charges—with the total charges collected for prepaid replies, with the land station and telegraph charges made for collation, with the charges collected for delivery by express, by post or by air mail and with the charges for copies of multiple telegrams. So far as concerns transmission over the telegraph communication routes, radiotelegrams are treated, from the point of view of accounting, in conformity with the Telegraph Regulations.

6. In the case of radiotelegrams intended for a country lying beyond that to which the land station belongs, the telegraph charges to be liquidated conformably with the above provisions are those which arise either from the tables of rates relating to international telegraph correspondence, or from special arrangements made between the Administrations of adjoining countries and published by those Administrations, and not the charges which might be made by applying minimum charges per telegram or by methods of rounding the charge per telegram in any manner.

7. In the case of radiotelegrams addressed to ship and aircraft stations, the Administration to which the office of origin is subject is debited directly by the Administration to which the land station is subject, with the land station and ship or aircraft charges plus the land station and ship or aircraft charges applicable to collation, but only where the radiotelegram has been transmitted to the ship or aircraft station. In the case provided for in section 4 of Article 9 of the Additional Regulations, however, the Administration to which the office of origin is subject is debited with the land station charge by the Administration to which the land station is subject. The Administration to which the office of origin is subject is always debited, from country to country if necessary, through the medium of the telegraph accounts, by the Administration to which the land station is subject, with the total charges relating to prepaid replies and the telegraph charges relating to collation. As regards telegraph charges and charges for delivery by post or air mail, and for copies of multiple telegrams, the procedure, so far as the telegraph accounts are concerned, is in conformity with the normal telegraph procedure. The Administration to which the land station is subject credits, in so far as the radiotelegram has been transmitted, the Administration to which the ship or aircraft station of destination is subject, (*a*) with the ship or aircraft charge; (*b*) if occasion arises with the charges due to intermediate ship or aircraft stations, with the total charge collected for prepaid replies, with the ship or aircraft charge relating to collation, with the charges collected for copies of multiple telegrams, and with the charges collected for delivery by post or by air mail.

8. Paid service advices and replies to radiotelegrams with prepaid reply, are treated in all respects like other radiotelegrams in the accounts of the mobile service.

9. In the case of radiotelegrams exchanged between stations in ships or aircraft

(*a*) through the medium of a single land station: The Administration to which the land station is subject debits the Administration to which the ship or aircraft station of origin is subject: with the land station charge, with the land telegraph charge, if any, and with the charge of the ship or aircraft station of destination. It credits the Administration to which the ship or aircraft station of destination is subject with the ship or aircraft charge due to that station.

(*b*) through the medium of two land stations: The Administration to which the first land station is subject debits the Administration to which the ship or aircraft station of origin is subject with all charges collected after deduction of the charge due to that ship or aircraft station. The Administration to which the second land station is subject debits directly the Administration to which the first land station is subject with the charges relative to the transmission to the mobile station of destination, but only where this transmission has been effected.

10. In the case of radiotelegrams which, at the request of the sender, are forwarded through one or two intermediate ship or aircraft stations, each of these latter stations debits the ship or aircraft station of destination if the radiotelegram is destined for a ship or aircraft station, or the ship or aircraft station of origin if the radiotelegram originates in a ship or aircraft station, with the ship or aircraft charge due to it for transit.

B. Exchange, Verification and Settlement of Accounts

11. In principle, the settlement of accounts relating to traffic exchanged between stations in ships or aircraft is made direct between the organizations operating the stations, that to which the station of origin is subject being debited by that to which the station of destination is subject.

12. In principle, the monthly accounts mentioned in this Article, which serve as a basis for the radiotelegram accounting, are prepared to show the monthly number of words in radiotelegrams from the same origin to the same destination, exchanged by each ship or aircraft station with the same land station, the model statement given in Appendix 10 being used so far as possible. The accounts are rendered within a period of three months, counting from the month to which they relate.

13. The acceptance of an account is notified or the observations thereon are made within a period of six months from the date of its despatch.

14. The periods mentioned in the two preceding paragraphs may be exceeded when exceptional difficulties occur in the transmission of the documents by post between the land stations and the Administrations to which they are subject. The settlement and examination of accounts presented more than eighteen months after the date of handing in of the radiotelegrams to which the accounts relate may, however, be refused by the debtor Administration.

15. In the absence of an agreement to the contrary, the following provisions are applicable to the radiotelegraph accounts referred to in the present Article.

16. (1) The monthly accounts are admitted without revision when the difference between the accounts prepared by the two Administrations concerned does not exceed one per cent. (1%) of the account of the creditor Administration, provided that the amount of this account is not more than one hundred thousand francs (100,000 fr.); when the amount of the account prepared by the creditor Administration is more than one hundred thousand francs (100,000 fr.), the difference must not exceed a total amount comprising:—

1st 1% of the first hundred thousand francs (100,000 fr.);

2nd 0·5% of the remainder.

If, however, the difference does not exceed twenty-five francs (25 fr.), the account must be accepted.

(2) A revision already begun is stopped when, following the exchange of observations between the two Administrations concerned, the difference has been reduced to an amount not exceeding the maximum fixed by the first sub-paragraph of this paragraph.

17. (1) Immediately after the acceptance of the accounts relating to the last month of a quarter, a quarterly account showing the balance for the whole of the three months of the quarter is, in the absence of an agreement to the contrary between the two Administrations concerned, prepared by the creditor Administration and transmitted in duplicate to the debtor Administration which, after verification, returns one of the copies endorsed with its acceptance.

(2) In default of acceptance of one or other of the monthly accounts of a given quarter before the expiration of the 6th month following the quarter to which the accounts relate, the quarterly account may, nevertheless, be prepared by the creditor Administration with a view to a provisional settlement which becomes obligatory for the debtor Administration under the conditions fixed by section 18 below. Adjustments subsequently agreed upon are included in a subsequent quarterly settlement.

18. The quarterly account must be verified and paid within a period of six weeks dating from the day on which the debtor Administration receives it. If this period is exceeded, the amounts due to one Administration by another bear interest at the rate of 6% per annum, from the day following the expiration of the said period.

19. (1) In the absence of an agreement to the contrary, the balance of the quarterly account is paid by the debtor Administration to the creditor Administration in gold or by means of cheques or drafts payable at sight drawn for a sum equivalent to the value of the balance expressed in gold francs.

(2) In the case of payment by means of cheques or drafts, these instruments are drawn in the money of a country where the central bank of issue or other official institution of issue buys and sells gold or gold currency against the national money at fixed rates determined by law or by virtue of an agreement with the Government. If the currencies of several countries fulfil these conditions, the creditor Administration indicates the currency which is convenient to it. The conversion is effected at the gold par rate.

(3) Where the currency of a creditor country does not fulfil the conditions specified under (2) above, the cheques or drafts may also be expressed in the currency of the creditor country if the two countries are agreed upon this procedure. In this case the balance is converted at the gold par rate into the currency of a country fulfilling the conditions mentioned above. The result obtained is then converted into the currency of the debtor country, and from this into the currency of the creditor country at the rate of exchange current in the capital or at a commercial centre of the debtor country on the day of delivery of the order for buying the cheque or the draft.

20. The cost of payment is borne by the debtor Administration.

21. The originals of radiotelegrams and the corresponding accounting documents are kept until the settlement of the relative accounts and, in any case, for at least ten months counting from the month following the handing in of the radiotelegram, with all necessary precautions from the point of view of secrecy.

Article 28

Aircraft Radio Service of Public Correspondence

Except in the case of special arrangements (Article 13 of the Convention), the provisions of the present Regulations relating to the procedure for exchanging and accounting for radiocommunications apply generally to the aircraft radio service of public correspondence.

Article 29

Service of Low-Power Mobile Radiotelephone Stations(*)

1. The following provisions concern only the service of mobile radiotelephone stations of which the power of the carrier-wave in the aerial does not exceed 100 watts (except in the case of regional agreements as provided for in Article 10, section 7, (4) of the present Regulations) within the band from 1,530 to 2,000 kc/s (196·1 to 150 m).

2. The service of such a station must be carried out by an operator holding a radiotelephone operator's certificate (Article 10, section 7 of the present Regulations).

3. (1) For calling coast stations, the call sign or the geographical name of the place as it appears in the List of Coast Stations and Ship Stations or in the List of Stations performing Special Services, may be used as the radiotelephone call sign.

(*) If occasion arises, these provisions may be applied to aircraft stations.

(2) For calling ship stations, either the name of the ship or a call sign in conformity with Article 14 of the present Regulations may be used as the radiotelephone call sign.

(3) In cases where the name and nationality of the ship cannot be ascertained with certainty, the call sign or the name shall be preceded by the name of the owner.

4. (1) The wave of 1,650 kc/s (182 m) is a calling wave for the mobile radiotelephone service. It may be used subject to the conditions specified in Article 7, section 7 [table, notes (11) and (13)]. This provision does not exclude the use of other frequencies which may be fixed by Administrations for the radiotelephone service with coast stations or ship stations designated by them.

(2) The coast stations and ship stations which use the calling wave of 1,650 kc/s (182 m) must be able to use at least one other wave in the band from 1,530 to 2,000 kc/s (196·1 to 150 m). This second wave will be printed in heavy type in the List of Stations to indicate that it is the normal working wave of the station. The working waves of these stations must be chosen so as to avoid interference with other radiocommunication stations.

(3) In addition to their normal working wave, coast stations and ship stations may use supplementary waves in the band mentioned. These waves are indicated in the List of Stations in ordinary type.

5. (1) In case of distress, if it is not possible to use for radiotelephony the general distress wave of 500 kc/s (600 m), the wave of 1,650 kc/s (182 m) may be used for the distress call and traffic. A station may also use any other wave to attract attention, indicate its situation and obtain assistance.

(2) The radiotelephony distress signal consists of the expression MAYDAY (corresponding to the French pronunciation of the expression " m'aider ").

6. So far as reasonable and practicable, the provisions concerning the radiotelegraph service and, in particular, the provisions relating to interference, to distress, urgency and safety services, to the closing of the service and to calling (Articles 16, 20, 22, 23 and 18 of the present Regulations) are applicable to the radiotelephone service.

7. In the service of low-power mobile radiotelephone stations, the procedure indicated in Appendix 12 to the present Regulations may be applied.

ARTICLE 30

Special Services

A. Meteorology

1. Meteorological messages comprise:

(*a*) messages addressed to meteorological services officially entrusted with the forecasting of weather and the protection of maritime and air navigation;

(*b*) messages from these services intended specially for:

1st mobile stations of the maritime service;
2nd the protection of the aircraft service;
3rd the public.

The information contained in these messages may be:

1st observations taken at fixed times;
2nd warnings of dangerous phenomena;
3rd forecasts and warnings;
4th statements of the general meteorological situation.

2. (1) The different national meteorological services agree together concerning the establishment of common programs of emission so as to use the transmitters best situated for the benefit of the largest areas they can serve.

(2) The meteorological observations contained in classes (*a*) and (*b*) 1st and 2nd above (section 1) are, in principle, drawn up in an international meteorological code whether they are transmitted by or intended for mobile stations.

3. Observation messages intended for an official meteorological service make use of the facilities resulting from the allocation of exclusive waves to the synoptic meteorological service and the aeronautical meteorological service, in conformity with regional agreements for the use of these waves concluded by the services concerned.

4. (1) Meteorological messages intended specially for the whole of the stations of the maritime mobile service are sent, in principle, in conformity with a fixed timetable, and, so far as possible, at times when they can be received by stations having only one operator, the speed of transmission being such that an operator possessing only a 2nd class certificate may be able to read the signals.

(2) During the transmission "to all stations" of meteorological messages intended for stations of the mobile service, all stations in that service whose transmissions might interfere with the reception of the messages in question, must keep silence in order to permit all stations which desire to do so to receive these messages.

(3) Meteorological warning messages are transmitted immediately and must be repeated after the end of the first silence period which follows (see Article 19, section 2). These messages must be sent on the waves

assigned to the maritime mobile service. Their transmission is preceded by the safety signal.

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

(5) The preceding rules are applicable to the aircraft service, in so far as they are not contrary to more detailed regional arrangements ensuring at least an equal measure of protection to air navigation.

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

(2) Every mobile station may intercept, for its own use, meteorological observations sent out by other mobile stations even when they are addressed to a national meteorological service. Stations in the mobile service which transmit meteorological observations addressed to a national meteorological service, are not required to repeat these observations; but the exchange between mobile stations, on request, of information relating to the state of the weather is authorized.

B. Time Signals. Notices to Navigators

6. The provisions of section 4 above are applicable to time signals and to notices to navigators, with the exception, so far as concerns time signals, of the provisions of section 4, (3) of section A.

7. Messages containing information concerning the presence of dangerous ice, dangerous derelicts, or any other imminent danger to navigation must be transmitted, with the least delay possible, to other mobile stations in the vicinity and to the competent authorities at the first point of the coast with which contact can be established. These transmissions must be preceded by the safety signal.

8. When they think it desirable, and on condition that the sender consents thereto, Administrations may authorize their land stations to communicate information concerning maritime damage and casualties or information presenting a general interest for navigation, to the marine information agencies approved by them and subject to the conditions fixed by these Administrations.

C. Service of Direction-Finding Stations

9. The Administrations to which direction-finding stations are subject accept no responsibility for the consequences of an inaccurate bearing.

10. These Administrations notify, for insertion in the List of Stations performing Special Services, the characteristics of each direction-finding station, indicating, for each one, the sectors in which bearings are normally accurate. Any change in these details must be published without delay; if the change is of a permanent nature, it must be communicated to the Bureau of the Union.

11. (1) The normal wave for direction-finding is the wave of 375 kc/s (800 m). All coast direction-finding stations must, in principle, be able to use this wave.(1) They must, in addition, be able to take bearings on emissions made on 500 kc/s (600 m), especially for locating signals of distress, alarm and urgency.

(2) An aircraft station desiring to have a bearing must, in order to ask for it, call on the wave of 333 kc/s (900 m) or on a wave allotted to the air route on which the aircraft is flying. In all cases where an aircraft, being in the vicinity of coast stations, applies to the latter for a bearing, it must use the frequency on which these coast stations keep watch.

12. The procedure to be followed in the direction-finding service is given in Appendix 13.

D. Radiobeacon Service

13. (1) When an Administration thinks it desirable, in the interests of maritime and air navigation, to organize a radiobeacon service, it may use for this purpose:—

(*a*) radiobeacons properly so called, established on land or on ships permanently moored; their emissions are either circular or directional;

(*b*) fixed stations, coast stations, or aeronautical stations deputed to act also as radiobeacons, at the request of mobile stations.

(2) Radiobeacons properly so called use the following waves:

(*a*) In the European region, for maritime radiobeacons, waves in the band from 290 to 320 kc/s (1,034 to 938 m), and for aircraft radiobeacons, waves in the band 350 to 365 kc/s (857 to 822 m), as well as certain waves in the band from 255 to 290 kc/s (1,176 to 1,034 m) chosen by international aeronautical organizations.

(*b*) In other regions, for maritime radiobeacons waves in the band from 285 to 315 kc/s (1,053 to 952 m) and, for aircraft radiobeacons, waves in the band from 194 to 365 kc/s (1,546 to 822 m).

---

(1) It is recognized that certain existing stations are not able to use this wave, but all new stations must be able to take bearings on 375 kc/s (800 m) and 500 kc/s (600 m).

(*c*) In addition, in Europe, Asia and Africa directional radiobeacons (maritime and aircraft) may use the waves in the bands from 1,500 to 1,630 kc/s (200 to 184 m) and from 1,670 to 3,500 kc/s (179·6 to 85·71 m) subject to the conditions fixed by section 20 of Article 7.

(*d*) The use of waves of type B is forbidden in radiobeacons properly so called.

(3) Other stations notified as radiobeacons use their normal transmitting frequency and their normal type of emission.

14. The signals sent by radiobeacons must permit of accurate and precise bearings being taken, they must be selected in such a way as to avoid all uncertainty when there is need to distinguish between two or more radiobeacon stations.

15. The Administrations which have organized a service of radiobeacons accept no responsibility for the consequences of inaccurate bearings obtained by means of radiobeacons in this serviec.

16. (1) The Administrations notify, for insertion in the List of Stations performing Special Services, the characteristics of each radiobeacon properly so called and of each station deputed to act as a radiobeacon, including, if necessary, the indication of the sectors in which bearings are normally accurate.

(2) Any modification or irregularity in working which occurs in the radiobeacon service must be published without delay; if the modification or the irregularity in working is of a permanent nature, it must be notified to the Bureau of the Union.

Article 31

International Consultative Committee for Radiocommunications (C.C.I.R.)

1. An international consultative committee for radiocommunications (C.C.I.R.) is charged with the task of studying technical radioelectric questions and questions of which the solution depends principally on considerations of a technical nature, which are submitted to it by the Administrations and by the Companies operating radioelectric installations.

2. (1) It is composed of experts from the Administrations and from the radioelectric operating companies or groups of companies recognized by their respective Governments, which declare their desire to participate in its work and undertake to contribute, in equal shares, to the general expenses of its meetings. The declaration is addressed to the Administration of the country in which the last Administrative Conference was held.

(2) International organizations interested in radioelectric studies, nominated by the last Plenipotentiary or

Administrative Conference and undertaking to contribute to the general expenses of the meetings as described in the preceding sub-paragraph, are also admitted.

(3) Each Administration, company, group of companies or international organization bears the personal expenses of its own experts.

3. In principle, the meetings of the C.C.I.R. are held every five years. The date fixed for a meeting may, however, be advanced or postponed by the Administration which has convened it, at the request of ten participating Administrations, if the number and nature of the questions to be examined justifies this course.

4. (1) The languages and the voting procedure used in the plenary sessions, committees and sub-committees are those adopted by the last Plenipotentiary or Administrative Conference.

(2) Nevertheless, when a country is not represented by an Administration, the experts of the operating companies recognized by that country, as a whole and irrespective of their numbers, exercise a single vote.

5. The Director of the Bureau of the Union or his representative and the representatives of the other International Consultative Committees, C.C.I.F. and C.C.I.T. have the right to participate, in a consultative capacity, in the meetings of the C.C.I.R.

6. The internal organization of the C.C.I.R. is governed by the provisions of Appendix 14 to the present Regulations.

ARTICLE 32

Expenses of the Bureau of the Union

1. The common expenses of the Bureau of the Union for the radiocommunication service must not exceed 200,000 gold francs a year.

2. If, however, exceptionally large expenses for printing or for documents occur in the course of a year, without the corresponding revenue being collected during the same year, the Bureau is authorized, in this case only, to exceed the maximum credit provided, subject to the condition that the maximum credit for the next succeeding year shall be reduced by an amount equal to the excess referred to above.

3. The sum of 200,000 gold francs may be modified at a later date with the consent of all the contracting parties.

ARTICLE 33

Entry Into Force of the General Regulations

The present General Regulations shall enter into force on the first of January nineteen hundred and thirty-four.

In witness whereof the respective plenipotentiaries have signed these General Regulations in a single copy which will remain deposited in the archives of the Government of Spain and of which a copy will be delivered to each Government.

Done at Madrid the 9th of December, 1932.

For the Union of South Africa:
H. J. Lenton
A. R. McLachlan

For Germany:
Hermann Giess
Dr. Hans Carl Steidle
Dr. Paul Jäger
Dr. Hans Harbich
Paul Münch
Martin Feuerhahn
Siegfried Mey
Dr. Friedrich Herath
Rudolph Salzmann
Erhard Maertens
Curt Wagner

For the Argentine Republic:
D. Garcia-Mansilla
R. Correa Luna
Luis S. Castiñeiras
M. Sàenz Briones

For the Commonwealth of Australia:
J. M. Crawford

For Austria:
Dr. Rudolph Oestreicher
Hans Pfeuffer

For Belgium:
B. Maus
R. Corteil

For Bolivia:
Jorge Saénz

For Brazil:
Luis Guimarães

For Canada:
Alfred Duranleau
W. Arthur Steel
Jean Désy

For Chile:
E. Bermùdez

For China:
Lingoh Wang

For the Vatican City State:
Giuseppe Gianfranceschi

For the Republic of Colombia:
Jos. Joaquin Casas
Alberto Sànchez de Iriarte
W. MacLellan

For the French Colonies, Protectorates and French Mandated Territories:
G. Carour

For the Portuguese Colonies:
Ernesto Julio Navarro
Arnaldo de Paiva Carvalho
José Méndes de Vasconcellos Guimarães
Maria Corrêa Barata da Cruz

For the Swiss Confederation:
G. Keller
E. Metzler

For Belgian Congo:
F. G. Tondeur

For Costa Rica:
A. Martin Lanuza

For Cuba:
Manuel S. Pichardo

For Curaçao and Surinam:
G. Schotel
Hoogewooning

For Cyrenaica:
G. Gneme

For Denmark:
Kay Christiansen
C. Lerche
J. C. Gredsted

For the Free City of Danzig:
Ing. Henryk Kowalski
V. Zander

For the Dominican Republic:
E. Brache Hijo
Juan de Olózaga

For Egypt:
R. Murray
Mohamed Said

For the Republic of El Salvador:
Raoul Contreras

For Ecuador:
Hipólito de Mozoncillo
Abel Romeo Castillo

For Erythrea:
G. Gneme
Jian Francesco della Porta

For Spain:
Miguel Sastre
Ramon Miguel Nieto
Gabriel Hombre
Francisco Vidal
J. de Encio
Tomàs Fernàndez Quintana
Leopoldo Cal
Trinidad Matres

For the United States of America:
Eugene O. Sykes
C. B. Jolliffe
Walter Lichtenstein
Irvin Stewart

For Finland:
Niilo Orasmaa
Viljo Ylöstalo

For France:
Jules Gautier

For the United Kingdom of Great Britain and Northern Ireland:
F. W. Phillips
J. Louden
F. W. Home
C. H. Boyd
J. P. G. Worlledge

For Greece:
Th. Pentheroudakis
St. Nicolis

For Guatemala:
Virgilio Rodriguez Beteta
Enrique Traumann
Ricardo Castañeda Paganini

For the Republic of Honduras:
Ant^{o} Graiño

For Hungary:
Ing. Jules Erdöss

For the Italian Islands of the Aegean:
G. Gneme
E. Mariani

For British India:
M. L. Pasricha
P. J. Edmunds

For the Dutch East Indies:
A. J. H. van Leeuwen
van Dooren
G. Schotel
Hoogewooning

For the Irish Free State:
P. S. Óh-Éigeartaigh
E. Cúisín

For Iceland:
G. J. Hliddal

For Italy:
G. Gneme
G. Montefinale

For Japan,
For Chosen, Taiwan, Karafuto, the Leased Territory of Kwantung and the South Seas Islands under Japanese Mandate:
Saichiro Koshida
Zenshichi Ishii
Satoshi Furihata
Y. Yonezawa
T. Nakagami
Takeo Iino

For Latvia:
B. Einberg

For Liberia:
Luis Maria Soler

For Lithuania:
Ing. K. Gaigalis

For Morocco:
Dubeauclard

For Nicaragua:
José García-Plaza

For Norway:
T. Engset
Hermod Petersen
Andr. Hadland

For New Zealand:
M. B. Esson

For the Republic of Panama:
M. Lasso de la Vega

For the Netherlands:
H. J. Boetje
C. H. de Vos
J. A. Bland van den Berg
W. Dogterom

For Peru:
Juan de Osma

For Poland:
Ing. Henryk Kowalski
Kazimierz Goobel
K. Krulisz
Kazimierz Szymanski

For Portugal:
Miguel Vaz Duarte Bacellar
José de Liz Ferreira
David de Sousa Pires
Joaquim Rodrigues Gonçalves

For Roumania:
Ing. T. Tanasesco

For Italian Somaliland:
G. Gneme
Gelmetti

For Sweden:
G. Wold

For Syria and Lebanon:
M. Morillon

For Tchecoslovakia:
Ing. Strnad
Dr. Otto Kučera
Ing. Jaromir Svoboda

For Tripolitania:
G. Gneme
D. Crety

For Tunis:
Crouzet

For Turkey:
Fahri
I. Cemal
Mazhar

For the Union of Soviet Socialist Republics:
Eugène Hirschfeld
Alexandre Kokadeev

For Uruguay:
Ad referendum of the Government of Uruguay
Daniel Castellanos

For Venezuela:
César Mármol Cuervo
Antonio Reyes

For Yugoslavia:
D. A. Zlatanovitch

APPENDIX 1

Table of Frequency and Instability Tolerances

(See Article 6)

1st. The frequency *tolerance* is the maximum divergence admissible between the frequency assigned to a station and the actual frequency emitted.

2nd. This divergence results from a combination of three errors:

(*a*) the error of the frequency meter or the frequency indicator used;

(*b*) the error made during the regulation of the station;

(*c*) slow variations of the frequency of the transmitter.

3rd. In the frequency tolerance, modulation is disregarded.

4th The frequency *instability* is the maximum admissible divergence resulting solely from the error referred to in (*c*) above.

Table of Frequency and Instability Tolerances

	Tolerances admissible immediately.	Tolerances admissible for new transmitters only after 1933	Instabilities admissible immediately	Instabilities admissible for new transmitters only after 1933
A. *From 10 to 550 kc/s (30,000 to 545 m):*	±	±	±	±
(*a*) Fixed stations.....	0·1%	0·1%		
(*b*) Land Stations.....	0·1%	0·1%		
(*c*) Mobile stations using indicated frequencies.....	0·5%(1)	0·5%(1)		
(*d*) Mobile stations using any wave within the band.....			0·5%	0·5%
(*e*) Broadcasting.....	0·3 kc/s	0·05 kc/s		
B. *From 550 to 1,500 kc/s (545 to 200 m):*				
(*a*) Broadcasting stations.....	0·3 kc/s	0·05 kc/s		
(*b*) Land stations.....	0·1%	0·1%		
(*c*) Mobile stations using any wave within the band.....	.....	.....	0·5%	0·5%

(1) It is recognized that in this service there are a great number of spark transmitters and simple auto-oscillator transmitters which are not able to comply with this requirement.

	Tolerances admissible immediately	Tolerances admissible for new transmitters only after 1933	Instabilities admissible immediately	Instabilities admissible for new transmitters only after 1933
C. *From 1,500 to 6,000 kc/s (200 to 50 m)*:	±	±	±	±
(*a*) Fixed stations.....	0·05%	0·03%		
(*b*) Land stations.....	0·1%	0·04%		
(*c*) Mobile stations using indicated frequencies.....	0·1%	0·1%		
(*d*) Mobile stations using any wave within the band.....			5 kc/s	3 kc/s
(*e*) Fixed and land stations of low power (up to 250 watts in the aerial) working in the bands shared by the fixed and mobile services.....	(2)	(2)	5 kc/s	3 kc/s
D. *From 6,000 to 30,000 kc/s (50 to 10 m)*:				
(*a*) Fixed stations.....	0·05%	0·02%		
(*b*) Land stations.....	0·1%	0·04%		
(*c*) Mobile stations using indicated frequencies.....	0·1%	0·1% (0·04% for frequencies in the shared bands).		
(*d*) Mobile stations using any wave within the band.....			0·1%	0·05%
(*e*) Broadcasting stations.....	0·03%	0·01%		
(*f*) Fixed and land stations of low power (up to 250 watts in the aerial) working in the bands shared by the fixed and mobile services.....	(2)	(2)	0·1%	0·05%

(2) The admissible tolerances not being given, the Administrations shall fix tolerances as small as may be practicable.

Note.—The Administrations will endeavour to profit by technical progress to reduce progressively the frequency tolerances and the limits of instability.

APPENDIX 2

Table of Frequency Band-Widths Occupied by Emissions

(See Article 6)

The frequency bands effectively occupied, in principle, by the different types of transmission in the present state of technical development are indicated below.

Type of transmission	Width of the band Cycles per second (including the two side bands)
Telegraphy speed of 100 words a minute in Morse code (40 dots a second)	
on non-modulated continuous wave	from 80 to 240 (corresponding to the fundamental keying frequency and its third harmonic).
on modulated continuous wave.	same value as above, plus twice the frequency of modulation.
Transmission of fixed images...	approximately the ratio of the number of image elements(1) to be transmitted to the number of seconds necessary for the transmission. Example: 100,000: 100= 1,000.
Television.....	approximately the product of the number of image elements(1) multiplied by the number of images transmitted per second. Example: 10,000×20 = 200,000.
Commercial radiotelephony...	approximately 6,000.
High quality radiotelephony as, for example, in broadcasting.	approximately 10,000 to 20,000.

(1) A cycle is composed of two elements, a black and a white; the frequency of modulation is thus half the number of elements transmitted per second.

APPENDIX 3

Report of an Infringement of the Convention or of the Radiocommunication Regulations

(See Article 13)

Particulars of the station infringing the Regulations.	
1. Name, if known (in block letters) [*Note (a)*]	.....
2. Call sign (in block letters)	.....
3. Nationality, if known	.....
4. Waves used (kc/s or m)	.....
5. System [*Note (b)*]	.....
Particulars of the station reporting the irregularity.	
6. Name (in block letters)	.....
7. Call sign (in block letters)	.....
8. Nationality	.....
9. Approximate position [*Note (c)*]	.....
Particulars of the irregularity.	
10. Name [*Note (d)*] of station in communication with the station committing the irregularity	.....
11. Call sign of station in communication with the station committing the irregularity	.....
12. Time [*Note (e)*] and date	.....
13. Nature of irregularity [*Note (f)*]	.....

14. *Extracts from log and other documents supporting the report* (to be continued on the back of the form, if necessary). Time.

15. *Certificate*:

I certify that the above report gives, to the best of my knowledge, a complete and accurate account of what took place.

Date.....19 . (*) .....

(*) This report must be signed by the operator who has reported the irregularity and countersigned by the master of the ship or aircraft, or by the officer in charge of the land station.

Instructions for Filling up This Form

Note (*a*) Only one ship or station to be dealt with in each report, see Note (*d*).

Note (*b*) Type A1, A2, A3, or B.

Note (*c*) Applicable to ships and aircraft only; must be expressed either in latitude and longitude (Greenwich) or by a true bearing and distance in nautical miles or in kilometres from some well-known place.

Note (*d*) If both communicating stations infringe the Regulations, a separate report is made for each of the stations.

Note (*e*) Must be expressed by a group of four figures (0001 to 2400) Greenwich mean time. If the irregularity covers a considerable period, the times must be shown under No. 14.

Note (*f*) A separate report is required for each irregularity unless they are obviously all made by the same person and have occurred within a short time. All reports must be forwarded in duplicate and when practicable must be typewritten.

(Indelible pencil and carbon paper may be used).

For Use of Administration Only

1. Company controlling the installation of the station against which complaint is made..	.. ..
2. Name of operator of the station held responsible for the infringement of the regulations..	.. ..
3. Action taken..	.. ..

APPENDIX 4

Hours of Service for Ships in the Second Category

(See diagram and map, Appendix 5 and also Articles 15 and 23)

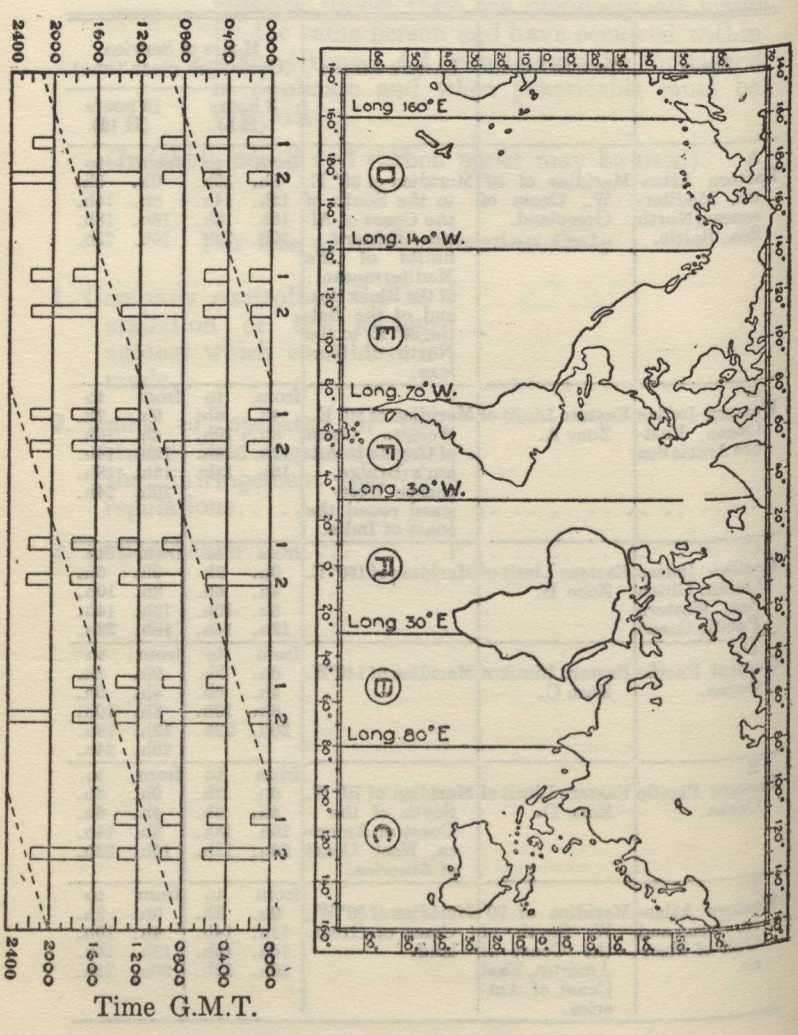
Zones	Western Limits	Eastern Limits	Hours of Service (Greenwich mean time)	
			8 hours (H 8)	16 hours (H 16)
A Eastern Atlantic, Mediterranean, North Sea, Baltic.	Meridian of 30° W., Coast of Greenland.	Meridian of 30° E. to the South of the Coast of Africa, Eastern limits of the Mediterranean, of the Black Sea, and of the Baltic, 30° E. to the North of Norway.	from to 8h. 10h. 12h. 14h. 16h. 18h. 20h. 22h.	from to 0h. 6h. 8h. 14h. 16h. 18h. 20h. 22h.
B Western Indian Ocean, Eastern Arctic Sea	Eastern Limit of Zone A.	Meridian of 80° E., Western Coast of Ceylon to Adam's Bridge, thence Westward round the coast of India.	from to 4h. 6h. 8h. 10h. 12h. 14h. 16h. 18h.	from to 0h. 2h. 4h. 10h. 12h. 14h. 16h. 18h. 20h. 24h.
C Eastern Indian Ocean, China Sea, Western Pacific Ocean	Eastern Limit of Zone B.	Meridian of 160° E.	from to 0h. 2h. 4h. 6h. 8h. 10h. 12h. 14h.	from to 0h. 6h. 8h. 10h. 12h. 14h. 16h. 22h.
D Central Pacific Ocean.	Eastern Limit of Zone C.	Meridian of 140°W.	from to 0h. 2h. 4h. 6h. 8h. 10h. 20h. 22h.	from to 0h. 2h. 4h. 6h. 8h. 10h. 12h. 18h. 20h. 24h.
E Eastern Pacific Ocean.	Eastern Limit of Zone D.	Meridian of 70° W. South of the Coast of America, West Coast of America.	from to 0h. 2h. 4h. 6h. 16h. 18h. 20h. 22h.	from to 0h. 2h. 4h. 6h. 8h. 14h. 16h. 22h.
F Western Atlantic Ocean and Gulf of Mexico.	Meridian of 70° W. South of the Coast of America, East Coast of America.	Meridian of 30° W., Coast of Greenland.	from to 0h. 2h. 12h. 14h. 16h. 18h. 20h. 22h.	from to 0h. 2h. 4h. 10h. 12h. 18h. 20h. 22h.

APPENDIX 5

Hours of Service for Ships in the Second Category

(See table in Appendix 4, and also Articles 15 and 23)

Time G.M.T.



Time G.M.T.

APPENDIX 6

Service Documents

(See Article 15)

Volume I. List of Coast Stations and Ship Stations

Part A. Alphabetical index of coast stations

Name of the station	Call sign	See Part B page
1	2	3

Part B. Particulars of coast stations

(Name of the country / Names of the stations) in alphabetical order.)

Name of the station	Call sign	Waves		Exact geographical position of the transmitting aerial (2)	Power in the aerial (3)	Service		Charges (5) (6)	Remarks (7)
		Frequencies (lengths) (1) kc/s (m)	Type		kW	Nature	Hours of service (4)		
1	2	3	4	5	6	7	8	9	10

(1) The normal working wave is printed in heavy type.
(2) Meridian of Greenwich.
(3) In the case of beam aerials, the arc and the azimuth should be given.
(4) Greenwich mean time.
(5) The internal telegraph charge of the country to which the coast station is subject and the charge applied by this country to telegrams destined for adjoining countries are given in an Annex to the present List.
(6) If the accounts for charges are settled by a Company, the name and address of this Company should be stated, if necessary.
(7) Special information concerning the times for calling, for the transmission of traffic lists, etc.

Part C. Particulars of ship stations

The information concerning these stations is published in two or three lines in the following order:—

1st line.

Call sign, below which will be shown the ship charge followed by a note to indicate the Administration or Company to which the accounts for charges must be addressed. In the case of a change in the address of the operating authority, a second note after the charge will give the new address and the date from which the change will take effect;

5982—7½

name of the ship in alphabetical order without regard to nationality, followed by the call sign in the case of duplication of names; in that case the name and the call sign are separated by a fraction bar; then the symbols ×, Δ, etc. When two or more ships of the same nationality bear the same name, and also in cases where the accounts for charges must be sent direct to the owner of the ship, the name of the shipping line or of the firm to whom the ship belongs is given by means of a note;

power in the aerial in kilowatts;

metre-ampères, between brackets.

To obtain the product "metre-ampères" the *actual* height of the aerial in metres from the water-line is multiplied by the effective current in ampères at the base of the aerial;

nature of service;

hours of service in the form of a symbol or a reference. Times indicated otherwise than by a symbol must be given in Greenwich mean time.

2nd line.

(for the charge, see under 1st line).

Country to which the station is subject (abbreviated indication);

types and

frequencies (wave-lengths) of emission for which adjustments are made, the normal working wave being printed in heavy type.

3rd line.

Brief notes and observations.

Volume II. List of Aeronautical Stations and Aircraft Stations

Part A. Alphabetical index of aeronautical stations

Name of the Station	Call sign	See part B page
1	2	3

Part B. Particulars of aeronautical stations

(Name of the country)
Names of the stations } in alphabetical order.)

Name of the station	Call sign	Waves				Exact geographical position of the transmitting aerial (2)	Power in the aerial(3)	Service		Charges(5) (6)	Observations
		For transmission		For reception							
		Frequencies(1) (lengths) kc/s (m)	Type	Frequency (length) kc/s (m)	Type		kW	Nature	Hours of service(4)		
1	2	3	4	5	6	7	8	9	10	11	12

(1) The normal working wave is printed in heavy type.
(2) Meridian of Greenwich.
(3) In the case of beam aerials, the arc and the azimuth should be given.
(4) Greenwich mean time.
(5) The internal telegraph charge of the country to which the aeronautical station is subject and the charge applied by that country to telegrams destined for adjacent countries are given in an annex to the present List of Stations.
(6) If the accounts for charges are settled by a Company, the name and address of the Company should be given, if necessary.

Part C. Particulars of aircraft stations

The stations are arranged in the alphabetical order of the call signs without regard to nationality.

Call sign	Name of the station or mark of nationality and registration	Frequencies (1) (lengths) kc/s (m)	Type	Power in the aerial kW	Country	Nature of service	Charges	Name and address of the Administration or Company to which accounts must be sent	Customary route (Home airport)	Type and make of aircraft	Observations
1	2	3	4	5	6	7	8	9	10	11	12

(1) The normal working wave is printed in heavy type.

Volume III. List of Stations Performing Special Services

Part A. Alphabetical Index of Stations

Name of the station	Call sign	See part B page
1	2	3

Part B. Particulars of stations

1st. *Direction-finding stations.*

(Name of the country / Name of the station } in alphabetical order.)

Name of the station	Exact geographical position(1) of— (a) the receiving aerial of the DF station. (b) the transmitting aerial of the DF station. (c) the transmitting aerial of the station mentioned in column 8.	Call Sign	Waves types — frequencies (lengths) — For calling the DF station kc/s (m)	Waves types — frequencies (lengths) — For transmitting to the DF station the signals necessary for taking bearings kc/s (m)	Waves types — frequencies (lengths) — For the transmission of the bearings by the DF station kc/s (m)	Power in the aerial of the transmitter kW	Name and call sign of the station with which communication must be established if the DF station is not equipped with a transmitter	Charges	Observations. (a) Sectors in which bearings are normally accurate and references to national or international publications on buoyage. (b) Hours of service(2), etc.
1	2	3	4	5	6	7	8	9	10

(1) Meridian of Greenwich.
(2) Greenwich mean time.

2nd. *Radiobeacon stations.*

The radiobeacons are arranged in two sections: (*a*) Maritime service, (*b*) Aircraft service.

(Name of the country / Name of the station } in alphabetical order.)

Name of station	Exact geographical position of the transmitting aerial of the radiobeacon(1)	Characteristic signal of the radiobeacon	Call sign of the radiobeacon if necessary	Wave: Frequency (length) kc/s (m)	Wave: Type	Wave: Frequency of modulation if necessary c/s	Normal range (2)	Name and call sign of the station to which requests for the emission of beacon signals may be addressed.	Calling wave frequency (length) kc s (m)	Observations (*a*) sectors normally reliable and references to national or international publications on buoyage; (*b*) hours of service(3) (*c*) charges, etc.
1	2	3	4	5	6	7	8	9	10	11

(1) Meridian of Greenwich.
(2) Ranges are indicated in nautical miles for stations of the maritime service and in kilometers for stations of the aircraft service.
(3) Greenwich mean time.

3rd. *Stations sending out time signals.*

(Name of the country / Name of the station } in alphabetical order.)

Name of the Station	Call Sign	Waves: Frequencies (lengths) kc/s (m)	Waves: Type	Times of emission(1)	Method(2)
1	2	3	4	5	6

(1) Greenwich mean time.
(2) General instructions concerning time signals.

4th. *Stations sending out regular meteorological bulletins.*

(Name of the country / Name of the station } in alphabetical order.)

Name of the station	Call sign	Waves: Frequencies (lengths) kc/s (m)	Waves: Type	Times of emission(1)	Observations(2)
1	2	3	4	5	6

(1) Greenwich mean time.
(2) General instructions concerning meteorological bulletins.

5th. *Stations sending out Notices to Navigators.*

(Names of the stations by countries with the necessary particulars.)

(*a*) Radiomaritime service.

(*b*) Aircraft radio service.

6th. *Stations sending out press messages addressed to all stations (CQ).*

(Name of the country.....)

(Name of the station with the necessary particulars.)

7th. *Stations sending out medical advice.*

8th. *Stations sending out calibrated waves.*

9th. (If necessary, other classes of stations).

Volume IV. List of Fixed Stations

(Index to the List of Frequencies of Fixed Stations Actually in Service)

Alphabetical index of stations arranged:

(*a*) *By stations*—

Station	Call Sign[1]	Frequency kc/s	Wave (wave-length (m)
1	2	3	

[1] The distinguishing call sign of each frequency must be indicated opposite this frequency.

(*b*) By countries—

Station	Call signal[1]	Wave frequency kc/s	(length) (m)	Observations
1	2	3		4

[1] The distinguishing call sign of each frequency must be indicated opposite this frequency.

Volume V. List of Broadcasting Stations

Part A. Alphabetical index of stations

Name of the station	Call sign	See part B page
1	2	3

Part B. Particulars of stations

(Name of the country / Name of the station } in alphabetical order.)

Name of the station	Call sign	Frequencies (lengths) kc/s (m)	Exact geographical position of the transmitting aerial (1)	Power in the aerial kW	Name and address of the Administration or enterprise carrying out the emission	Observations
1	2	3	4	5	6	7

(1) Meridian of Greenwich.

List of Frequencies

I. General

(*a*) As regards *land, fixed* and *broadcasting stations,* the Administrations notify to the Bureau of the Union complete particulars for each frequency assigned to these stations (see Article 7, section 5).

(*b*) As regards *mobile stations,* complete particulars are not furnished. There is given in respect of each country, for each separate class of stations (ship, aircraft and others), only the frequencies assigned to these stations in the bands reserved for them.

Example:

5,525 kc/s (54·30 m) ship stations of the United States of America.
5,690 kc/s (52·72 m) aircraft stations of Brazil.

(*c*) The frequencies assigned to *stations performing special services* and also to *amateur stations* and *private experimental stations* are given in groups, country by country, for each class of station [example: 3,500 to 4,000 kc/s (85·71 to 75 m) amateur stations in Canada].

(*d*) In order to facilitate the use of the List of Frequencies, the Bureau of the Union mentions on each page the band of frequencies in the distribution list corresponding to the frequencies appearing on that page [example: 7,300 to 8,200 kc/s (41·10 to 36·59 m) Fixed services].

(*e*) For the technical terms and indications used in the List, Administrations are recommended to refer to the Avis issued by the C.C.I.R.

II. Notification

(*a*) The date of notification of a frequency to be inserted in column 3 a, is the date borne by the communication in which the Bureau of the Union has been informed of the *first* allocation of this frequency to a station in the country indicated. The name of this station appears in column 5.

By country is meant in this List, the country within the limits of which the station is established.

(*b*) At the time of the notification of a frequency for a station of a country, the date to be inserted in column 3 b, opposite to the name of the station, is the same as that entered in column 3 a. If the same frequency is subsequently assigned to another station of the same country, there is entered opposite the name of the new station, in column 3 a, the date of the first notification referred to above and, in column 3 b, the date of allocation of this frequency to the new station.

(*c*) If, two years after the notification (column 3 b), the frequency notified has not been brought into use by the station to which it has been assigned, the relative entries are cancelled, unless the Administration concerned, which must be consulted by the Bureau of the Union six months before the end of the period referred to above, has requested their retention. In the latter case the dates of notification in columns 3 a and 3 b stand.

Exact frequency in kc/s	Approximate wave-length in metres	Date		Call Sign	Name and geographical position (1) of the station and name of the country to which the station is subject	Type of emission (A1, A2, A3, A4, B, Special)	Power in the aerial		Directivity of the aerial	Maximum frequency of modulation for the types of emission A2, A3, A4 and Special (2)	Maximum normal speed of transmission in bands (3)	Nature of service and countries with which communication is contemplated or established.	Date of bringing into use of the frequency by the station named in column 5 (date contemplated in brackets) (4)	Operating Administration or Company	Observations
		of first notification of the frequency for a station of this country	of notification of this frequency for the station of which the name appears in column 5				in kW	Rate of modulation %							
		a	b				a	b							
1	2	3		4	5	6	7		8	9	10	11	12	13	14

(1) Meridian of Greenwich.

(2) The figure to be inserted in column 9 must permit the width of the band of frequencies occupied by the transmission to be determined.

No sign precedes the figure when the transmission uses the two side bands. If the transmission uses only one side band, this is indicated by placing before the figure either the sign + (frequency side band above the carrier frequency) or − (frequency side band below the carrier frequency).

(3) The speed in bands for the international Morse code is approximately equal to 0·8 × words per minute.

(4) The Administration notify to the Bureau of the Union without delay the bringing into use of frequencies for which complete particulars appear in the List of Frequencies.

APPENDIX 7

Service Symbols

[See Articles 15 and 19, section 1, (6) (*a*).]

×	station on board a warship or military or naval aircraft.
Δ	direction-finder on board a mobile station.
■	station classed as situated in a region where traffic is congested and for which traffic on 500 kc/s (600 m) is restricted in conformity with Article 19, section 1, (6) (*a*).
D 30°	directive aerial with maximum radiation in the direction 30° (expressed in degrees clock-wise from true North from zero to 360).
DR	directive aerial provided with a reflector.
FA	aeronautical station.
FC	coast station.
FR	station for reception only, connected with the general communications system.
FS	land station established solely for life-saving purposes.
FX	station performing a radio communication service between fixed points.
H 24	station open always, day and night.
H 16	ship station of the second category with 16 hours of service.
H 8	ship station of the second category with 8 hours of service.
HJ	station open from sunrise to sunset (day service).
HX	station not having fixed hours of service.
CO	station open exclusively to official correspondence.
CP	station open to public correspondence.
CR	station open to restricted public correspondence.
CV	station open exclusively to the correspondence of a private enterprise.
RC	circular radiobeacon.
RD	directional radiobeacon.
RG	direction-finding station.
RT	revolving radiobeacon.
RV	radiobeacon with variable direction.

APPENDIX 8

Documents With Which Mobile Stations Must be Provided

(See Articles 3, 10, 12 and 15 and Appendix 6.)

A. *" Ship stations " on board ships compulsorily equipped with a radiotelegraph installation:—*

1. the radioelectric licence;
2. the certificate (s) of the operator(s);
3. the log (diary of the radioelectric service) in which are recorded, at the time when they occur service incidents of all kinds and also communications exchanged with land stations or mobile stations relating to notices regarding casualties. If the ship's rules permit, the position of the vessel shall be indicated once daily in the log;
4. the Alphabetical List of Call Signs;
5. the List of Coast Stations and Ship Stations;
6. the List of Stations performing Special Services;
7. the Convention and the Regulations annexed thereto;
8. the telegraph tariffs of the countries for which the station most frequently accepts telegrams.

B. *Other " ship stations ":—*

the documents included under figures 1 to 5 of section A.

C. *" Aircraft stations ":—*

1. the documents included under figures 1, 2 and 3 of section A;
2. the List of Aeronautical and Aircraft Stations;
3. Such documents as the competent aeronautical organizations of the countries concerned may consider necessary to the station for the execution of its service.

APPENDIX 9

List of Abbreviations to be Used in Radiocommunications

(See Article 16)

1. Q Code

Abbreviations available for all services (1) (2)

Abbreviation	Question	Answer or advice
QRA	What is the name of your station?	The name of my station is...
QRB	How far approximately are you from my station?	The approximate distance between our stations is.... nautical miles (*or*...kilometres).
QRC	What company (or Government Administration) settles the accounts for your station?	The accounts for my station are settled by the...company (*or* by the Government Administration of..).
QRD	Where are you bound and where are you from?	I am bound for...from...
QRG	Will you tell me my exact frequency (wave-length) in kc/s (*or* m)?	Your exact frequency (wave-length) is...kc/s (*or*..m)..
QRH	Does my frequency (wave-length) vary?	Your frequency (wave-length) varies.
QRI	Is my note good?	Your note varies.
QRJ	Do you receive me badly? Are my signals weak?	I cannot receive you. Your signals are too weak.
QRK	Do you receive me well? Are my signals good?	I receive you well. Your signals are good.
QRL	Are you busy?	I am busy (*or* I am busy with ...) Please do not interfere.
QRM	Are you being interfered with?	I am being interfered with.
QRN	Are you troubled by atmospherics?	I am troubled by atmospherics.
QRO	Shall I increase power?	Increase power.
QRP	Shall I decrease power?	Decrease power.
QRQ	Shall I send faster?	Send faster (...words per minute).
QRS	Shall I send more slowly?	Send more slowly (...words per minute).
QRT	Shall I stop sending?	Stop sending.
QRU	Have you anything for me?	I have nothing for you.
QRV	Are you ready?	I am ready.
QRW	Shall I tell...that you are calling him on...kc/s (*or* ...m)?	Please tell...that I am calling him on...kc/s (*or*... m).
QRX	Shall I wait? When will you call me again?	Wait (*or* wait until I have finished communicating with...) I will call you at ..o'clock (*or* immediately).
QRY	What is my turn?	Your turn is No.... (*or according to any other method of arranging it*).

(1) The abbreviations take the form of questions when they are followed by a note of interrogation.

(2) The series QA, QB, QC, QD, QF, QG are reserved for the special aeronautical code.

Abbreviation	Question	Answer or advice
QRZ	Who is calling me?	You are being called by...
QSA	What is the strength of my signals (*1 to 5*)?	The strength of your signals is...(*1 to 5*).
QSB	Does the strength of my signals vary?	The strength of your signals varies.
QSD	Is my keying correct; are my signals distinct?	Your keying is incorrect; your signals are bad.
QSG	Shall I send...telegrams (*or* one telegram) at a time?	Send...telegrams (*or* one telegram) at a time.
QSJ	What is the charge per word for . . . including your internal telegraph charge?	The charge per word for...is . . . francs, including my internal telegraph charge.
QSK	Shall I continue with the transmission of all my traffic, I can hear you through my signals?	Continue with the transmission of all your traffic, I will interrupt you if necessary.
QSL	Can you give me acknowledgment of receipt?	I give you acknowledgment of receipt.
QSM	Shall I repeat the last telegram I sent you?	Repeat the last telegram you have sent me.
QSO	Can you communicate with..direct (*or* through the medium of...)?	I can communicate with...direct (*or* through the medium of ...).
QSP	Will you retransmit to...free of charge?	I will retransmit to... free of charge.
QSR	Has the distress call received from...been cleared?	The distress call received from...has been cleared by...
QSU	Shall I send (*or* reply) on... kc/s (*or* m) and/or on waves of Type A1, A2, A3, or B?	Send (*or* reply) on...kc/s (*or* ...m) and/or on waves of Type A1, A2, A3, or B.
QSV	Shall I send a series of VVV ...?	Send a series of VVV...
QSW	Will you send on...kc/s (*or* ...m) and/or on waves of Type A1, A2, A3 or B?	I am going to send (*or* I will send) on...kc/s (*or*...m) and/or on waves of Type A1, A2, A3 or B.
QSX	Will you listen for ... (*call sign*) on...kc/s (*or*...m)?	I am listening for ... (*call sign*) on...kc/s (*or*...m).
QSY	Shall I change to transmission on...kc/s (*or*...m) without changing the type of wave? *or*	Change to transmission on... kc/s (*or*...m) without changing the type of wave *or*
	Shall I change to transmission on another wave?	Change to transmission on another wave.
QSZ	Shall I send each word or group twice?	Send each word or group twice.
QTA	Shall I cancel telegram No... as if it had not been sent?	Cancel telegram No....as if it had not been sent.
QTB	Do you agree with my number of words?	I do not agree with your number of words; I will repeat the first letter of each word and the first figure of each number.
QTC	How many telegrams have you to send?	I have...telegrams for you (*or* for...).
QTE	What is my true bearing in relation to you? *or* What is my true bearing in relation to...(*call sign*)? *or*	Your true bearing in relation to me is...degrees *or* Your true bearing in relation to...(*call sign*) is...degrees at ... (*time*) *or*
	What is the true bearing of... (*call sign*) in relation to... (*call sign*)?	The true bearing of ... (*call sign*) in relation to...(*call sign*) is...degrees at..... (*time*).

Abbreviation	Question	Answer or advice
QTF	Will you give me the position of my station according to the bearings taken by the direction-finding stations which you control?	The position of your station according to the bearings taken by the direction-finding stations which I control is ... latitude ... longitude.
QTG	Will you send your call sign for fifty seconds followed by a dash of ten seconds on ... kc/s (*or*...m) in order that I may take your bearing?	I will send my call sign for fifty seconds followed by a dash of ten seconds on... kc/s (*or*...m) in order that you may take my bearing.
QTH	What is your position in latitude and longitude (*or by any other way of showing it*)?	My position is...latitude... longitude (*or by any other way of showing it*).
QTI	What is your true course?	My true course is..degrees..
QTJ	What is your speed?	My speed is...knots (*or* ... kilometres) per hour.
QTM	Send radioelectric signals and submarine sound signals to enable me to fix my bearing and my distance.	I will send radioelectric signals and submarine sound signals to enable you to fix your bearing and your distance.
QTO	Have you left dock (*or* port)?	I have just left dock (*or* port).
QTP	Are you going to enter dock (*or* port)?	I am going to enter dock (*or* port).
QTQ	Can you communicate with my station by means of the International Code of Signals?	I am going to communicate with your station by means of the International Code Signals.
QTR	What is the exact time?	The exact time is...
QTU	What are the hours during which your station is open?	My station is open from... to...
QUA	Have you news of... (*call sign of the mobile station*)?	Here is news of... (*call sign of the mobile station*).
QUB	Can you give me in this order, information concerning : visibility, height of clouds, ground wind for ... (*place of observation*)?	Here is the information requested...
QUC	What is the last message received by you from .... (*call sign of the mobile station*)?	The last message received by me from ... (*call sign of the mobile station*) is...
QUD	Have you received the urgency signal sent by.. (*call sign of the mobile station*)?	I have received the urgency signal sent by... (*call sign of the mobile station*) at... (*time*).
QUF	Have you received the distress signal sent by... (*call sign of the mobile station*)?	I have received the distress signal sent by... (*call sign of the mobile station*) at... (*time*).
QUG	Are you being forced to alight in the sea (or to land)?	I am forced to alight (or land) at... (*place*).
QUH	Will you indicate the present barometric pressure at sea level?	The present barometric pressure at sea level is.. (*units*).
QUJ	Will you indicate the true course for me to follow, with no wind, to make for you?	The true course for you to follow, with no wind, to make for me is...degrees at... (*time*).

2. Miscellaneous Abbreviations

Abbreviation	Meaning
C	Yes.
N	No.
P	Indicator of private telegram in the mobile service (*to be used as a prefix*).
W	Word *or* words.
AA	All after . . . (*to be used after a note of interrogation to ask for a repetition*).
AB	All before . . . (*to be used after a note of interrogation to ask for a repetition*).
AL	All that has just been sent (*to be used after a note of interrogation to ask for a repetition*).
BN	All between . . . (*to be used after a note of interrogation to ask for a repetition*).
BQ	A reply to an RQ.
CL	I am closing my station.
CS	Call sign (*to be used to ask for a call sign or to have one repeated*).
DB	I cannot give you a bearing, you are not in the calibrated sector of this station.
DC	The minimum of your signal is suitable for the bearing.
DF	Your bearing at . . . (*time*) . . . was degrees, in the doubtful sector of this station, with a possible error of two degrees.
DG	Please advise me if you note an error in the bearing given.
DI	Bearing doubtful in consequence of the bad quality of your signal.
DJ	Bearing doubtful because of interference.
DL	Your bearing at . . . (*time*) was . . . degrees in the doubtful sector of this station.
DO	Bearing doubtful. Ask for another bearing later, or at . . . (*time*).
DP	Beyond 50 miles, the possible error of bearing may amount to two degrees.
DS	Adjust your transmitter, the minimum of your signal is too broad.
DT.	I cannot furnish you with a bearing; the minimum of your signal is too broad.
DY	This station is two-way, what is your approximate direction in degrees in relation to this station?
DZ	Your bearing is reciprocal (*to be used only by the control station of a group of direction-finding stations when it is addressing other stations of the same group*).
ER	Here . . . (*to be used before the name of the mobile station in the sending of route indications*).
GA	Resume sending (*to be used more especially in the fixed service*).
JM	If I may transmit, send a series of dashes. To stop my transmission, send a series of dots [*not to be used on* 500 kc/s (600 *m*)].
MN	Minute *or* minutes (*to be used to indicate the duration of a a wait*).
NW	I resume transmission (*to be used more especially in the fixed service*).
OK	Agreed.
RQ	Designation of a request.
SA	Indicator preceding the name of an aircraft station (*to be used in the sending of particulars of flight*).
SF	Indicator preceding the name of an aeronautical station.
SN	Indicator preceding the name of a coast station.
SS	Indicator preceding the name of a ship station (*to be used in sending particulars of voyage*).
TR	Indicator used in sending particulars concerning a mobile station.
UA	Are we agreed?
WA	Word after . . . (*to be used after a note of interrogation to request a repetition*).

Abbreviation	Meaning
WB	Word before ... (*to be used after a note of interrogation to request a repetition*).
XS	Atmospherics.
YS	Your service message.
ABV	Repeat (*or* I repeat) the figures in abbreviated form.
ADR	Address (*to be used after a note of interrogation to request a repetition*).
CFM	Confirm (*or* I confirm).
COL	Collate (*or* I collate).
ITP	Stops (punctuation) count.
MSG	Telegram concerning the service of the ship (*to be used as a prefix*).
NIL	I have nothing for you (*to be used after an abbreviation of the Q code to mean that the answer to the question put is negative*).
PBL	Preamble (*to be used after a note of interrogation to request a repetition*).
REF	Referring to ... (*or* Refer to ...).
RPT	Repeat (*or* I repeat) (*to be used to ask for or to give repetition of all or part of the traffic, the relative particulars being sent after the abbreviation*).
SIG	Signature (*to be used after a note of interrogation to request a repetition*).
SVC	Indicator of service telegram concerning private traffic (*to be used as a prefix*).
TFC	Traffic.
TXT	Text (*to be used after a note of interrogation to request a repetition*).

APPENDIX 10

Scale Used to Express the Strength of Signals

(See Article 16)

1 = Hardly perceptible; unreadable.

2 = Weak; readable now and then.

3 = Fairly good; readable, but with difficulty.

4 = Good; readable.

5 = Very good; perfectly readable.

APPENDIX 11

(See Article 27)

Statement of radiotelegrams exchanged with mobile stations of.....nationality.

Year.....

Month..... Land station.....

Origin	Destination	Number of radio-telegrams	Number of words	The Admn. (X): 5				Observations
				Credits		Debits		Indicate in classes the number of special radio-telegrams and the relative number of words.
				Gold francs	cts.	Gold francs	cts.	
1	2	3	4					6
s/s Ile de France	United States 1st Zone	5	90	.....	....	.....	....	1 urgent 13
s/s Paris	Brazil.....	3	65	.....	....	.....	....	
s/s Paris	Japan.....	2	19	.....	....	.....	....	
s/s France	s/s Espagne.....	4	46	.....	....	.....	....	2 urgent 15

APPENDIX 12

Procedure in the Service of Low-Power Mobile Radiotelephone Stations

(See Article 29)

1. The following procedure is given as an example [1]:—

1st A calls:

Hullo B, hullo B, A calling, A calling, radiotelegram for you, radiotelegram for you, over.

2nd B replies:

Hullo A, hullo A, B answering, B answering, send your radiotelegram, send your radiotelegram, over.

3rd A replies:

Hullo B, A answering, radiotelegram begins from ....number....number of words....date.... time....address....text....signature....,

transmission of radiotelegram ends, I repeat, radiotelegram begins from....number.... number of words....date..time....address ....text....signature....radiotelegram ends, over.

4th B replies:

Hullo A, B answering, your radiotelegram begins, from....number....number of words.... date....time ....address.... text.... signature.....,

Your radiotelegram ends, over.

5th A replies:

Hullo B, A answering, correct, correct, switching off.

6th A then breaks off the communication and both stations resume their normal watch.

Note: At the beginning of a communication, the calling formula is spoken twice by both the station calling and the station called. When communication has been established, it is spoken once only.

[1] In the European telephone service, the use of the word "Hullo" is forbidden.

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2. So far as spelling of call signs, service abbreviations and words is necessary, the procedure shall be in conformity with the following table:—

Figures to be indicated(²).	Letters to be spelt.	Words to be used for spelling.	Letters to be spelt.	Words to be used for spelling.
1	A	Amsterdam	N	New York
2	B	Baltimore	O	Oslo
3	C	Casablanca	P	Paris
4	D	Danemark	Q	Quebec
5	E	Edison	R	Roma
6	F	Florida	S	Santiago
7	G	Gallipoli	T	Tripoli
8	H	Havana	U	Upsala
9	I	Italia	V	Valencia
0	J	Jerusalem	W	Washington
comma	K	Kilogramme	X	Xanthippe
fraction bar	L	Liverpool	Y	Yokohama
	M	Madagascar	Z	Zurich

3. When the station receiving is certain that it has correctly received the radiotelegram, the repetition contemplated under 4 of section 1 is unnecessary, unless a collated radiotelegram is concerned. If repetition is dispensed with, station B acknowledges the receipt of the radiotelegram sent, in the following form:—

Hullo A, B answering, your radiotelegram duly received, over.

APPENDIX 13

Procedure for Obtaining Direction-Finding Bearings

(See Article 30)

I. General Instructions

A. Before calling one or more direction-finding stations, for the purpose of asking for a bearing, the mobile station must ascertain from the List of Stations:

1st The call signs of the stations to be called to obtain the bearings desired.

2nd The wave on which the direction-finding stations keep watch, and the wave or waves on which they take bearings.

3rd The direction-finding stations which, being linked with it by special wires, can be grouped with the direction-finding station to be called.

B. The procedure to be followed by the mobile station depends on varying circumstances. Generally, the following must be taken into account:

1st If the direction-finding stations do not keep watch on the same wave, whether it be the wave on which bearings are taken or another wave, a separate request for the bearings must be made to each station or group of stations using a given wave.

(²) Each transmission of figures is preceded and followed by the words "as a number" spoken twice.

2nd. If all the direction-finding stations concerned keep watch on the same wave, and if they are able to take bearings on a common wave—which may be a wave other than the listening wave—they should all be called together, in order that the bearings may be taken by all the stations at the same time, on one and the same transmission.

3rd. If several direction-finding stations are grouped by means of special wires, only one of them must be called even if all are furnished with transmitting apparatus. In that case, however, the mobile station must, if necessary, specify in the call, by means of the call signs, the direction-finding stations from which it wishes to obtain bearings.

II. Rules of Procedure

A. The mobile station calls the direction-finding station or stations on the wave given in the List of Stations as their listening wave. It transmits the abbreviation QTE, which means:—

"I wish to know my bearing in relation to the direction-finding station which I am calling."

or

"I wish to know my bearing in relation to the direction-finding station or stations whose call signs follow."

or

"I wish to know my bearing in relation to the direction-finding stations grouped under your control."

and the call sign or signs necessary, and concludes by indicating, if necessary, the wave which it is going to use to enable its bearings to be taken. It then awaits instructions.

B. The direction-finding station or stations called prepare to take the bearing; if necessary, they warn the direction-finding stations with which they are linked. As soon as the direction-finding stations are ready, such of them as are provided with transmitting apparatus reply to the mobile station in the alphabetical order of their call signs, by giving their call sign followed by the letter K.

In the case of direction-finding stations which are grouped, the station called warns the other stations in the group and informs the mobile station as soon as the stations of the group are ready to take the bearing.

C. After having, if necessary, changed to its new transmitting wave, the mobile station replies by sending its call sign, together with any other signal needed, for a period sufficiently prolonged to permit the bearing to be taken.

D. The direction-finding station or stations which are satisfied with the operation transmit the signal QTE ("Your bearing in relation to me was . . . degrees"), preceded by the time of the observation and followed by a

group of three figures (000 to 359), indicating in degrees the true bearing of the mobile station in relation to the direction-finding station.

If a direction-finding station is not satisfied with the operation, it requests the mobile station to repeat the transmission described under C.

E. As soon as the mobile station has received the result of the observation, it repeats the message to the direction-finding station, which then states that the repetition is correct or, if necessary, corrects it by repeating the message. When the direction-finding station is sure that the mobile station has correctly received the message, it transmits the signal " end of work." This signal is then repeated by the mobile station, as an intimation that the operation is finished.

F. The particulars of (*a*) the signal to be used to obtain the bearing, (*b*) the duration of the transmission to be made by the mobile station, and (*c*) the time used by the direction-finding station in question are given in the List of Stations.

APPENDIX 14

Rules of Procedure of the International Consultative Committee for Radiocommunications (C.C.I.R)

(See Article 31)

Article 1

By " Managing Administration " is meant the Administration which is charged with organizing a meeting of the C.C.I.R. The Managing Administration begins to undertake the work of the C.C.I.R. five months after the closing of the preceding meeting; its task ends five months after the closing of the meeting which it has organized.

Article 2

The Managing Administration fixes the place and the definite date of the meeting which it is charged with organizing. At least six months before that date, the Managing Administration addresses invitations for this meeting to all the Administrations of the International Telecommunication Union and through their intermediary to the companies, groups of companies and the international radioelectric organizations referred to in Article 31 of the General Radiocommunication Regulations.

Article 3

1. The first meeting of the plenary assembly is opened by the Managing Administration. This assembly sets up the necessary committees and divides among them, in classes, the question to be dealt with. It chooses also the

Chairman and the Vice-Chairman of the C.C.I.R.; and the Chairman and the Vice-Chairman or Vice-Chairmen of each committee.

2. The Chairman of the C.C.I.R. has charge of the plenary sessions; he undertakes in addition the general control of the work of the meeting. The Vice-Chairmen assist the Chairmen and take their places in case of absence.

ARTICLE 4

The secretariat of the meeting of the C.C.I.R. is provided by the Managing Administration, with the collaboration of the Bureau of the Union.

ARTICLE 5

In principle, the minutes and reports record the views of the delegates only as regards their principal points. Each delegate has, however, the right to require the insertion in the minutes or the reports, of any statement which he has made, either in the form of a summary or in full, on condition that he supplies the text by the morning after the end of the session at the latest.

ARTICLE 6

1. A delegation which is prevented by a serious reason from being present at sessions has the right to entrust its vote or votes to another delegation. The same delegation may not, however, combine and exercise in such circumstances, the votes of more than two delegations, including its own vote or votes.

2. A proposal is not adopted unless it receives a clear majority of the votes cast; if the votes are equal, it is rejected. The number of delegations which have voted *for* and the number of those which have voted *against* the proposal is recorded in the minutes.

3. Voting takes place either by raising the hand or, at the request of a delegation, by roll call, in the alphabetical order of the French names of the participating countries. In the latter case, the minutes shall indicate the delegations which have voted *for* and those which have voted *against* the proposal.

ARTICLE 7

1. The committees set up by the plenary session may divide themselves into sub-committees, and the sub-committees into sub-sub-committees.

2. The Chairman of a committee proposes for the approval of the relative committee the name of the Chairman of each sub-committee and sub-sub-committee. The committees, sub-committees and sub-sub-committees themselves nominate their reporters.

3. The various " avis " adopted by the committees must bear the word " *unanimously* " if the " avis " received the approval of all those voting or the words " *by a majority* " if the " avis " was adopted by a majority.

Article 8

The Bureau of the Union takes part in the various operations of the C.C.I.R. with a view to centralizing and publishing a general documentation for the use of the Administrations.

Article 9

1. At the closing session of the plenary assembly, the Chairman announces the list of " avis," and a list of questions which remain for solution and of new questions submitted by the committees.

2. The Chairman establishes, if necessary, the definite adoption of the various " avis " issued. If voting is necessary in the plenary assembly the words " unanimously " or " by a majority " are used in connection with such voting.

3. The questions remaining unsolved and new questions are recorded by the Chairman, if the meeting agrees that the study of them should be pursued. The Chairman then asks which Administrations desire to undertake the preparation of proposals relating to these questions and which other Administrations or radioelectric operating enterprises, are prepared to co-operate in the work. According to the replies, he draws up an official list of the questions to be included in the agenda for the following meeting, with particulars of the centralizing Administrations and the collaborating Administrations and private enterprises operating radioelectric communications. This list is included in the minutes of the session.

4. In the same session of the plenary assembly, the C.C.I.R., at the request or with the consent of the delegation concerned, designates the Administration which will summon the next meeting and the approximate date of this meeting.(*)

(*) *Note by the International Bureau:* In its 3rd plenary assembly, the Radiotelegraph Conference of Madrid decided that the third meeting of the C.C.I.R. should be permitted to examine the question whether it would be convenient for that Committee to meet at the same place and at the same time as the next Administrative Radiotelegraph Conference. The recommendation by the C.C.I.R. on this subject would be for consideration by the Administration which will invite the next Conference and by the other Administrations of the Union which would decide whether it was necessary to give effect to the recommendation.

The procedure to be followed after the 3rd meeting of the C.C.I.R. is given in the minutes of the 4th plenary assembly of the Radiotelegraph Conference of Madrid.

ARTICLE 10

1. After the closing of the meeting, the preparation of the questions assigned for study is entrusted to the Administration chosen to organize the next meeting (new Managing Administration). Matters still in hand are, however, entrusted to the former Managing Administration, which is charged with concluding them in collaboration with the Bureau of the Union.

2. The former Managing Administration transmits the documents to the new Managing Administration, at latest, five months after the closing of its meeting.

ARTICLE 11

After the end of a meeting, all the other questions which the Administrations and radioelectric operating companies desire to submit to the Committee are addressed to the new Managing Administration. This Administration includes these questions in the agenda for the next meeting. A question may not, however, be included therein, if it has not been communicated to the Managing Administration at least six months before the date of the meeting.

ARTICLE 12

1. All the documents relating to a meeting, sent before this meeting to the Managing Administration, or presented during the meeting, are printed and distributed by the Bureau of the Union in collaboration with the Managing Administration.

2. When the study of a question has been entrusted to a centralizing Administration, it rests with that Administration to take the necessary steps for proceeding with the study of the question. Collaborating Administrations and radioelectric operating companies must send their reports on the question direct to a centralizing Administration, six months before the date of the meeting of the C.C.I.R., in order that the said Administration may take them into account in its general report and in its proposals.

3. The Administrations and the radioelectric operating companies are, however, free to send a copy of their report to the Bureau of the Union also, if they desire that these reports should be communicated immediately and separately, through the medium of the Bureau, to all the Administrations and companies concerned.

ARTICLE 13

The Managing Administration may correspond direct with the Administrations and the radioelectric operating companies considered capable of collaborating in the tasks of the Committee. It sends at least one copy of the documents to the Bureau of the Union.

GENERAL RADIOCOMMUNICATION REGULATIONS ANNEXED TO THE INTERNATIONAL TELECOMMUNICATION CONVENTION, 1932

The following Ratifications have been deposited:—

Belgium	December 2, 1933
Belgian Congo and Ruanda-Urundi	December 2, 1933
Netherlands	December 23, 1933
Vatican City State	December 27, 1933
Czechoslovakia	January 5, 1934
Morocco	February 25, 1934
Canada	March 6, 1934
Syria and Lebanon	May 22, 1934
Poland	May 31, 1934
Luxemburg	June 9, 1934
United States of America	June 14, 1934
Spain	June 27, 1934
Spanish Colonies and Spanish Zone of Morocco	June 27, 1934
Switzerland	August 1, 1934
Colombia	November 7, 1934
Irish Free State	February 15, 1935
Panama	March 29, 1935
Albania	May 6, 1935
Venezuela	May 9, 1935
South Africa	May 30, 1935
China	June 5, 1935
Hungary	June 10, 1935
Soviet Union	June 15, 1935

The following State has acceded to the Regulations:—

Hayti	August 3, 1935

FINAL PROTOCOL TO THE GENERAL RADIOCOMMUNICATION REGULATIONS ANNEXED TO THE INTERNATIONAL TELECOMMUNICATION CONVENTION

Final Protocol

At the moment of proceeding to the signature of the General Radiocommunication Regulations annexed to the International Telecommunication Convention, the undersigned plenipotentiaries take note of the following declarations:

I

The plenipotentiaries of Germany formally declare that their Government reserves to itself the right to continue the use of the waves of 105 kc/s (2,857 m) and 117·5 kc/s (2,553 m) for certain special press services carried out by radiotelephony.

II

The plenipotentiaries of the Dutch East Indies formally declare that their Government reserves to itself the right not to permit mobile stations of its country to apply the provisions of the last two sentences of Article 26, section 1, (1) of the General Regulations concerning the retransmission of radiotelegrams through a mobile station, with the sole object of accelerating or facilitating transmission, instead of transmitting them to the nearest land station.

III

The plenipotentiaries of the Union of Soviet Socialist Republics formally declare that their Government reserves to itself the right to use the following bands of frequencies for the services enumerated below:—

150	to	285 kc/s	(2,000	to 1,053	m)	broadcasting
285	to	315 kc/s	(1,053	to 952	m)	radiobeacons
315	to	340 kc/s	(952	to 882	m)	aeronautical services and direction-finding
340	to	420 kc/s	(882	to 714	m)	broadcasting
515	to	550 kc/s	(583	to 545	m)	aeronautical services
9,600	to	9,700 kc/s	(31.25	to 30.93	m)	broadcasting
11,700	to	11,900 kc/s	(25.64	to 25.21	m)	fixed services
12,100	to	12,300 kc/s	(24.79	to 24.39	m)	broadcasting
15,350	to	15,450 kc/s	(19.54	to 19.42	m)	broadcasting
17,800	to	17,850 kc/s	(16.85	to 16.81	m)	broadcasting
21,550	to	21,750 kc/s	(13.92	to 13.79	m)	broadcasting

IV

With reference to the declaration made in the present Protocol by the plenipotentiaries of the Union of Soviet Socialist Republics concerning the use of certain bands of

frequencies, the plenipotentiaries of China formally declare that their Government reserves to itself the right to take all the measures which may be necessary to protect their radiocommunications from any interference which may be caused by the putting into force of the aforesaid reservations of the Government of the Union of Soviet Socialist Republics.

V

The plenipotentiaries of Hungary formally declare that in consequence of the reservation by the Union of Soviet Socialist Republics relating to Article 7 of the General Radiocommunication Regulations (distribution and use of frequencies), their Government reserves to itself the right not to apply the provisions of section 5, (2) of the Article in question, if the emissions from stations established by the Union of Soviet Socialist Republics, in pursuance of its reservation, interfere seriously with the emissions from Hungarian stations.

VI

With reference to the declaration made in the present Protocol by the plenipotentiaries of the Union of Soviet Socialist Republics concerning the use of certain bands of frequencies, the plenipotentiaries of Japan formally declare that their Government reserves to itself for Japan, Chosen, Taiwan, Karafuto, the Leased Territory of Kwantung and the South Seas Islands under Japanese Mandate, the right to take all the measures which may be necessary to protect their radiocommunications from any interference which may be caused by the putting into force of the aforesaid reservations of the Government of the Union of Soviet Socialist Republics.

VII

The plenipotentiaries of Poland and Roumania, in view of the reservations already formulated on the subject of the use of certain bands of frequencies, formally declare that in the event of a satisfactory regional arrangement (European Conference) or a satisfactory special arrangement not being concluded, each of their Governments reserves to itself the right to make, if necessary, certain exceptions so far as concerns the use for aeronautical services of certain frequencies outside the bands assigned by Article 7 of the General Radiocommunication Regulations, in agreement with the neighbouring countries concerned, and, in particular, not to observe the delay prescribed in section 5, (2) of that Article, in order to safeguard the fundamental needs of these services against any interference which may be caused by the putting into force of the reservations mentioned above.

In witness whereof the undersigned plenipotentiaries have drawn up the present Protocol and have signed it in a single copy, which shall remain in the archives of the Government of Spain and of which a copy shall be sent to each Government which has signed the Protocol in question.

Done at Madrid the 9th of December, 1932.

For the Union of South Africa:
H. J. Lenton
A. R. McLachlan

For Germany:
Hermann Giess
Dr. Hans Carl Steidle
Dr. Paul Jäger
Dr. Hans Harbich
Paul Münch
Martin Feuerhahn
Siegfried Mey
Dr. Friedrich Herath
Rudolph Salzmann
Erhard Maertens
Curt Wagner

For the Argentine Republic:
D. Garcia-Mansilla
R. Correa Luna
Luis S. Castiñeiras
M. Sàenz Eriones

For the Commonwealth of Australia:
J. M. Crawford

For Austria:
Dr. Rudolph Oestreicher
Hans Pfeuffer

For Belgium:
B. Maus
R. Corteil

For Bolivia:
Jorge Saénz

For Brazil:
Luis Guimarães

For Canada:
Alfred Duranleau
W. Arthur Steel
Jean Désy

For Chile:
E. Bermùdez

For China:
Lingoh Wang

For the Vatican City State:
Giuseppe Gianfranceschi

For the Republic of Colombia:
Jos. Joaquin Casas
Alberto Sànchez de Iriarte
W. Mac Lellan

For the French Colonies, Protectorates and French Mandated Territories:
G. Corour

For the Portuguese Colonies:
Ernesto Julio Navarro
Arnaldo de Paiva Carvalho
José Méndes de Vasconcellos Guimarães
Maria Correa Barata da Cruz

For the Swiss Confederation:
G. Keller
E. Metzler

For Belgian Congo:
F. G. Tondeur

For Costa Rica:
A. Martin Lanuza

For Cuba:
Manuel S. Pichardo

For Curaçao and Surinam:
G. Schotel
Hoogewooning

For Cyrenaica:
G. Gneme

For Denmark:
Kay Christiansen
C. Lerche
J. C. Gredsted

For the Free City of Danzig:
Ing. Henryk Kowalski
V. Zander

For the Dominican Republic:
E. Brache Hijo
Juan de Olòzaga

For Egypt:
R. Murray
Mohamed Said

For the Republic of El Salvador:
Raoul Contreras

For Ecuador:
Hipòlito de Mozoncillo
Abel Romeo Castillo

For Erythrea:
G. Gneme
Jian Francesco della Porta

For Spain:
Miguel Sastre
Ramon Miguel Nieto
Gabriel Hombre
Francisco Vidal
J. de Encio
Tomàs Fernàndez Quintana
Leopoldo Cal
Trinidad Matres

For the United States of America:
Eugene O. Sykes
C. B. Jolliffe
Walter Lichtenstein
Irvin Stewart

For Finland:
Niilo Orasmaa
Viljo Ylöstalo

For France:
Jules Gautier

For the United Kingdom of Great Britain and Northern Ireland:
F. W. Phillips
J. Louden
F. W. Home
C. H. Boyd
J. P. G. Worlledge

For Greece:
Th. Pentheroudakis
St. Nicolis

For Guatemala:
Virgilio Rodriguez Beteta
Enrique Traumann
Ricardo Castañeda Paganini

For the Republic of Honduras:
Antº Graiño

For Hungary:
Ing. Jules Erdöss

For the Italian Islands of the Aegean:
G. Gneme
E. Mariani

For British India:
M. L. Pasricha
P. J. Edmunds

For the Dutch East Indies:
A. J. H. van Leeuwen
van Dooren
G. Schotel
Hoogewooning

For the Irish Free State:
P. S. Óh-Éigeartaigh
E. Cúisín

For Iceland:
G. J. Hliddal

For Italy:
G. Gneme
G. Montefinale

For Japan, for Chosen, Taiwan, Karafuto, the Leased Territory of Kwantung and the South Seas Islands under Japanese Mandate:
Saichiro Koshida
Zenshichi Ishii
Satoshi Furihata
Y. Yonezawa
T. Nakagami
Takeo Ilino

For Latvia:
B. Einberg

For Liberia:
Luis Maria Soler

For Lithuania:
Ing. K. Gaigalis

For Morocco:
Dubeauclard

For Nicaragua:
José García-Plaza

For Norway:
T. Engset
Hermod Petersen
Andr. Hadland

For New Zealand:
M. B. Esson

For the Republic of Panama:
M. Lasso de la Vega

For the Netherlands: Dec. 23, 1933 (R)
H. J. Boetje
C. H. de Vos
J. A. Bland van den Berg
W. Dogterom

For Peru:
Juan de Osma

For Poland: May 31, 1934 (R)
Ing. Henryk Kowalski
K. Krulisz

For Portugal:
Miguel Vaz Duarte Bacellar
José de Liz Ferreira
David de Sousa Pires
Joaquim Rodriques Gonçalves

For Roumania:
Ing. T. Tanasesco

For Italian Somaliland:
G. Gneme
Gelmetti

For Sweden:
G. Wold

For Syria and Lebanon:
M. Morillon

For Tchecoslovakia:
Ing. Strnad
Dr. Otto Kučera
Ing. Jaromir Svoboda

For Tripolitania:
G. Gneme
D. Crety

For Tunis:
Crouzet

For Turkey:
Fahri
I. Cemal
Mazhar

For the Union of Soviet Socialist Republics:
Eugène Hirschfeld
Alexandre Kokadeev

For Uruguay:
Ad referendum of the Government of Uruguay
Daniel Castellanos

For Venezuela: May 9, 1935 (R)
César Mármol Cuervo
Antonio Reyes

For Yugoslavia:
D. A. Zlatanovitch

FINAL PROTOCOL TO THE GENERAL RADIOCOMMUNICATION REGULATIONS, 1932

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Belgian Congo and Ruanda-Urundi	December 2, 1933
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Vatican City State	December 27, 1933
Czechoslovakia	January 5, 1934 (R)
Poland	May 31, 1934
Luxemburg	June 9, 1934 (R)
United States of America	June 14, 1934
Spain	June 27, 1934
Spanish Colonies and Spanish Zone of Morocco	June 27, 1934 (R)
Venezuela	May 9, 1935

The following State has acceded to the Final Protocol:—

Bulgaria	December 13, 1933 (A)