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In the Supreme Court of Canada

IN THE MATTER OF A REFERENCE AS TO THE JURISDICTION OF
PARLIAMENT TO REGULATE AND CONTROL COM-
MUNICATION BY RADIO

APPENDIX TO CASE

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In the Supreme Court of Canada

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No. 1
Radiotelegraph Act



CHAPTER 195

An Act respecting Radiotelegraphy

SHORT TITLE

Short title. **1.** This Act may be cited as the Radiotelegraph Act. 1913, c. 43, s. 1.

INTERPRETATION

- Definitions. **2.** In this Act, unless the context otherwise requires,
- "Coast station." 10 (a) "coast station" means any radiotelegraph station which is established on land or on board a ship permanently moored and which is used for the exchange of messages and electric signals with ships at sea;
- "Land station." (b) "land station" means any radiotelegraph station or installation of radiotelegraphic apparatus which is not a coast station nor a ship station;
- "Minister." (c) "Minister" means the Minister of Marine and Fisheries;
- "Radio-telegraph." (d) "radiotelegraph" includes any wireless system for conveying electric signals or messages including radiotelephones;
- "Ship station." (e) "ship station" means any radiotelegraph station established on board a ship which is not permanently moored. 1913, c. 43, s. 2.
- Powers of Governor in Council. **3.** The Governor in Council may
- 20 (a) prescribe the tariff of fees to be paid for licences and for examination for certificates of proficiency held and issued under the provisions of this Act;
- (b) authorize the payment of a portion of the licence fees collected in respect of certain prescribed licences to a provincial government, private company, or other prescribed party, and, notwithstanding anything to the contrary in any Act, to any department or employee thereof, for services given in connection with the operation of broadcasting stations and for services performed for the Minister in connection with the licensing and inspection of stations;

- (c) accede to any international convention in connection with radiotelegraphy, and make such regulations as may be necessary to carry out and make effective the terms of such convention and prescribe penalties recoverable on summary conviction for the violation of such regulations: Provided that such penalties shall not exceed five hundred dollars and costs;
- (d) make regulations for the censorship and controlling of radiotelegraph signals and messages in case of actual or apprehended war, rebellion, riot or other emergency. 1913, c. 43, s. 10; 1923, c. 26, s. 1.

4. The Minister may make regulations

Regulations 10
by
Minister.

- (a) prescribing the form and manner in which applications for licences under this Act are to be made;
- (b) classifying ship, coast and land stations and prescribing the type and range of the regular equipment and the emergency equipment to be installed in the several classes of stations;
- (c) defining the different kinds of licences that may be issued, their respective forms and the several periods for which they shall continue in force;
- (d) prescribing the conditions and restrictions to which the several licences shall respectively be subject;
- 20 (e) prescribing the different classes of certificate of proficiency and the class of certificate necessary to qualify persons as operators for the several classes of ship, coast and land stations;
- (f) for the examination of persons desiring to obtain certificates of proficiency as radiotelegraph operators and to determine the qualifications in respect of age, term of service, skill, character and otherwise to be required for such certificates;
- (g) prescribing the watches to be kept by operators and the number of operators to be maintained and kept at the different classes of ship, coast and land stations;
- 30 (h) for the inspection of radiotelegraph stations;
- (i) to provide how radiotelegraph apparatus installed upon any foreign or British ship, whether such British ship is registered in Canada or elsewhere, shall be operated while such ship is within the territorial waters of Canada;
- (j) to compel all radiotelegraph stations to receive, accept, exchange and transmit signals and messages with such other radiotelegraph stations and in such manner as he may prescribe;
- (k) for the effective carrying out of the provisions of this Act.

Penalty
for
violation.

2. The Minister may, by regulation, authorize the imposition of a penalty not exceeding fifty dollars and costs or three months' imprisonment for the violation of any regulation made under this section, and any such penalty may be recovered upon summary conviction. 1913, c. 43, s. 11.

Publication
of
regulations.

5. All regulations made under the provisions of the two sections immediately preceding shall be published in the *Canada Gazette*, and shall be laid before both Houses of Parliament within ten days after the publication thereof if Parliament is then sitting, and if Parliament is not then sitting, then within ten days after the next meeting thereof. 1913, c. 43, s. 12.

To be laid
before
Parliament.

Radio-
telegraph
stations
and
apparatus
to be
licensed.

10 6. No person shall establish any radiotelegraph station or install or work any radiotelegraph apparatus in any place in Canada or on board any ship registered in Canada except under and in accordance with a licence granted in that behalf by the Minister. 1913, c. 43, s. 3.

Certain
passenger
steamers
to be
equipped
with
apparatus.

7. No passenger steamer whether registered in Canada or not

(a) licensed to carry fifty or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than two hundred nautical miles from one port or place to another port or place; or

(b) licensed to carry two hundred and fifty or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than ninety nautical miles from one port or place to another port or place; or

20

(c) licensed to carry five hundred or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than twenty nautical miles from one port or place to another port or place;

shall leave or attempt to leave any Canadian port unless such steamer is equipped with an efficient radiotelegraph apparatus, in good working order, capable of transmitting and receiving messages over a distance of at least one hundred nautical miles by night, and by day, and in charge of a person fully qualified to take charge of and operate such apparatus.

Penalty.

30 2. The owner, master or other person in charge of any passenger steamer which leaves or attempts to leave any Canadian port contrary to the provisions of this section shall, on summary conviction, be liable to a fine not exceeding one thousand dollars and costs, and such fine and costs shall constitute a lien upon such passenger steamer.

Exception.

3. This section shall not apply to passenger steamers plying on the rivers of Canada, including the river St. Lawrence as far seaward as a line drawn from Father Point to Point Orient, or on the Northumberland straits, or on the Georgian bay, or on the lakes of Canada other than lakes Ontario, Erie, Huron and Superior.

Exception.

4. Paragraph (c) of subsection one of this section shall not apply to steamers making voyages on lakes Ontario, Erie, Huron and Superior, the regular route for which is not at any point more than seven miles from the shore.

Exception.

5. This section shall not apply to steamers calling at Canadian ports solely for the purpose of obtaining bunker coal or provisions for the use of such steamer, or through stress of weather, or for repairs. 1913, c. 43, s. 4.

Rules for transmission of messages.

8. All persons operating land or cable telegraph lines shall transmit all messages destined to or coming from ship stations via coast stations under such rules as may be made by the Board of Railway Commissioners for Canada. 1913, c. 10 43, s. 5.

Operators to be British subjects. Declaration of secrecy.

9. No one shall be employed as a radiotelegraph operator at any coast or land station unless he is a British subject.

2. All radiotelegraph operators at shore or land stations, or on ship stations on board any vessel registered in Canada, shall take and subscribe a Declaration of Secrecy in the form set forth in the schedule to this Act, before a judge of any court, a notary public, a justice of the peace or a commissioner for taking affidavits, having authority or jurisdiction within the place where the oath is administered.

Penalty for divulging information.

3. Every person who has made the Declaration of Secrecy and who, either directly or indirectly, divulges to any person, except when lawfully authorized or directed so to do, any information which he acquired by virtue of his employment, is guilty of an offence and shall be liable on summary conviction to a penalty not exceeding one hundred dollars and to imprisonment for a term not exceeding six months. 1913, c. 43, s. 6.

Penalty for sending false messages and for obstructing communication.

10. Any person who sends or transmits or causes to be sent or transmitted any false or fraudulent distress signal, message, call or radiogram of any kind, or who without lawful excuse interferes with or obstructs any radio-communication, shall be guilty of an offence and shall be liable on summary conviction to a penalty not exceeding five hundred dollars and costs or six months' imprisonment. 1913, c. 43, s. 7.

Search for stations and apparatus illegally established.

30 11. If a justice of the peace is satisfied by information on oath that there is reasonable ground for supposing that a radiotelegraph station has been established without licence in that behalf, or that any apparatus for radiotelegraphy has been installed or worked in any place or on board any ship registered in Canada within his jurisdiction without a licence in that behalf, he may grant a search warrant to any police officer or any officer appointed in that behalf by the Minister and named in the warrant.

Warrant to enter and seize.

2. A warrant so granted shall authorize the officer named therein to enter and inspect the station, place or ship and to seize any radiotelegraph apparatus which appears to him to be there used or intended to be there used for radiotelegraphy. 1913, c. 43, s. 8.

Penalty for establishing stations and apparatus illegally.

12. Every one who establishes a radiotelegraph station or installs or works any radiotelegraph apparatus in violation of the provisions of this Act, or of any regulation made hereunder, shall be liable on summary conviction to a penalty not exceeding fifty dollars, and on conviction on indictment to a fine not exceeding five hundred dollars and to imprisonment for a term not exceeding twelve months, and 10 in either case shall be liable to forfeit to His Majesty, any radiotelegraph apparatus installed or worked without a licence.

Proceedings.

2. No proceedings shall be taken against any person under this section, except by order of the Minister. 1913, c. 43, s. 9.

Government may take temporary possession of stations, apparatus and operators. Owners to give up possession, etc.

13. His Majesty may, at any time, assume, and for any length of time retain, possession of any radiotelegraph station, and of all things necessary to the sufficient working thereof, and may, for the same time, require the exclusive service of the operators and other persons employed in working the same.

20 The person owning or controlling the station shall give up possession thereof, and the operators and other persons so employed shall, during the time of such possession, diligently and faithfully obey such orders, and transmit and receive such signals, calls and radiograms as they are required to receive and transmit by any duly authorized officer of the Government of Canada.

Compensation therefor.

3. If the Minister and the person owning or controlling any radiotelegraph station taken possession of by the Crown under the provisions of this section cannot agree as to the compensation to be paid by the Crown for such taking possession, the Minister shall refer the matter to the Exchequer Court of Canada for adjudication. 1913, c. 43, s. 13.

SCHEDULE

DECLARATION OF SECRECY

30 I, A. B., solemnly and sincerely promise and declare that I will faithfully and honestly fulfil the duties which devolve upon me as radiotelegraphic operator, and that I will not, either directly or indirectly, divulge to any person, except when lawfully authorized or directed so to do, any information which I acquire by virtue of my employment as such operator, or which may come to my knowledge through the operation of any radiotelegraphic installation.

Declared before me at..... }
....., this }
day of, 19.... }
1913, c. 43, sch.

(Signature of declarant.)

No. 2
Radio Regulations

PART I

APPROVED BY THE GOVERNOR IN COUNCIL AND ISSUED IN ACCORDANCE WITH SECTION
10 OF THE RADIOTELEGRAPH ACT, CHAPTER 43, STATUTES 1913

FEEs FOR LICENCES

1. (a) The annual fees to be paid in respect of licences issued by the Minister of Marine and Fisheries for the installation and operation of radiotelegraph stations in the Dominion of Canada, or on board any ship registered in Canada, shall be as follows:

	1. Limited Coast Station.....	\$50 00
	2. Public Commercial Station.....	50 00
	3. Private Commercial Broadcasting Station.....	50 00
	4. Private Commercial Station.....	10 00
	5. Experimental Station	5 00
	6. Amateur Broadcasting Station.....	10 00
	7. Amateur Experimental Station.....	2 50
	8. Private Receiving Station.....	1 00
	9. Technical or Training School Station.....	5 00
20	10. Ship Station	10 00

(b) Provided that the Minister may at his discretion issue free of charge to any blind person a licence for a private receiving station upon being satisfied that such person is blind.

FEEs FOR EXAMINATIONS

2. (a) The fees to be paid in respect of examinations for "Certificate of Proficiency in Radiotelegraphy and Radiotelephony" shall be as follows, for each examination or re-examination:—

	1. Extra First-Class Certificate.....	\$5 00
	2. First-Class Certificate	2 50
	3. Second-Class Certificate	1 00
	4. Third-Class Certificate	1 00
	5. Experimental Certificate	2 50
	6. Amateur Certificate	0 50
	7. Emergency Certificate, any class.....	5 00
30	8. Radiotelephone Certificate	2 50

(b) The Minister may issue duplicate Certificates of Proficiency in Radiotelegraphy upon the production of satisfactory evidence under oath, that the originals have been lost or destroyed and the following scale of fees is established therefor:

(1) Amateur Experimental	\$0 50
(2) All other classes	1 00

LONDON CONVENTION

3. (i) The provisions of the International Radiotelegraph Convention of London, 1912, and of the regulations annexed thereto, shall be observed by all 10 "coast stations" established in Canada, and by all "ship stations" on board any vessel registered in Canada.

(ii) *Penalty*.—Any person who installs or works any radiotelegraph apparatus at any of the above-mentioned stations in violation of this regulation, shall be liable on summary conviction to a fine not exceeding five hundred dollars (\$500) and costs.

CONTROL OF STATIONS IN CASE OF EMERGENCY

4. (i) *Coast and Land Stations*.—If, and whenever in the opinion of the Minister an emergency shall have arisen in which it is expedient for the public service that the Government shall have control over the transmission of messages by the apparatus of any coast or land station, it shall be lawful for the said Minister, 20 by warrant under his hand, to direct and cause so much of the apparatus, as is within Canada or the territorial waters thereof, or any part of the apparatus, to be taken possession of in the name and on behalf of His Majesty and to be used for His Majesty's Service and subject thereto for such ordinary service as to the said Minister may seem fit, and in that event, any person, authorized by the said Minister, may enter upon the stations, offices and works of any coast or land station or any of them and take possession thereof and use the same as aforesaid.

(ii) The Minister may, when he considers such an emergency as aforesaid to have arisen, instead of taking possession of such coast or land station, direct and authorize such persons as he may think fit to assume the control of the transmission 30 of messages by the apparatus of such station, either wholly or partly and in such manner as he may direct, and such persons may enter upon the station premises accordingly, or the said Minister may direct the owner or his representative to submit to him or any person authorized by him all messages tendered for transmission or arriving by the apparatus or any class or classes of such messages, to stop or delay the transmission of any messages or deliver the same to him or his agent, and generally to obey all such directions with reference to the transmission of messages as the said Minister may prescribe, and the owner or his representative shall obey and conform to all such directions.

(iii) The Minister may, when he considers such emergency as aforesaid to have arisen, close any coast or land station and cause the removal therefrom of the apparatus or any part thereof.

5. (i) *Ship Stations*.—If, and whenever, in the opinion of the Minister, an emergency shall have arisen in which it is expedient for the public Service that the Government shall have control over the transmission of messages by the apparatus of a radiotelegraph station on board any Canadian registered vessel, it shall be lawful for the said Minister, by warrant under his hand, to direct and cause the apparatus or any part thereof to be taken possession of in the name and on behalf of
10 His Majesty and to be used for His Majesty's Service and, subject thereto, for such ordinary services as to the said Minister may seem fit, and in that event, any person authorized by the said Minister may enter upon any ship station and take possession thereof and use the same as aforesaid.

(ii) When the Minister considers such an emergency as aforesaid to have arisen, he may, instead of taking possession of such ship station, direct and authorize such persons as he may think fit to assume the control of the transmission of messages by the apparatus of such station, either wholly or partly, and in such manner as he may direct, and such persons may enter upon the station premises accordingly or the said
20 Minister may direct the owner or his representative to submit to him or any person authorized by him all messages tendered for transmission or arriving by the apparatus of any class or classes of such messages, to stop or delay the transmission of any messages or deliver the same to him or his agent, and generally to obey all such directions with reference to the transmission of messages as the said Minister may prescribe, and the owner or his representative shall obey and conform to all such directions.

PART II

ISSUED BY THE MINISTER OF MARINE AND FISHERIES IN ACCORDANCE WITH SECTION
11 OF THE RADIOTELEGRAPH ACT, CHAPTER 43, STATUTES 1913

LICENCES

30 1. *Nationality of Licensees*.—Licences for "Transmitting Stations" are issued only to British subjects or to companies incorporated under the laws of the Dominion of Canada or any of the Provinces thereof.

Licences for "Private Receiving Stations" are issued to any person in Canada, irrespective of nationality.

2. *Issue of Licences*.—Licences for "Private Receiving Stations" are issued by the Department of Marine and Fisheries, Ottawa, by Departmental Radio Inspectors, and by the Postmasters of the larger towns and cities in the Dominion of Canada.

Licences for all other classes of stations are issued by the Department of Marine and Fisheries, Ottawa, only.

Applications for licences for other than "Private Receiving Stations" should be made on the form "Application for Licences" provided for that purpose, copies of which may be obtained directly from the Department or from any Departmental Radio Inspector.

(b) Applications for licence to install and operate any of the following classes of stations for radiotelephony in the province of Manitoba will, under arrangement between the Dominion and Provincial Governments, be submitted to the
 10 Minister of Telephones of the province of Manitoba for endorsement before being finally dealt with by the Department of Marine and Fisheries:—

Public Commercial Station,
 Private Commercial Station,
 Private Commercial Broadcasting Station,
 Amateur Broadcasting Station.

3. *Classes of Licences.*—Licences for the following classes of stations may be issued:—

Coast Stations—

Limited Coast Station.

20 *Land Stations—*

Public Commercial Station.
 Private Commercial Broadcasting Station.
 Private Commercial Station.
 Experimental Station.
 Amateur Broadcasting Station.
 Amateur Experimental Station.
 Private Receiving Station.
 Technical or Training School Station.

Ship Stations—

30 Ship Stations.

4. *Duration of Licences.*—Licences will be valid for one year, commencing on April 1 and expiring March 31 of the following year. All licences issued during the year automatically expire on March 31, unless otherwise specified in the licence.

5. *Limited Coast Licences.*—Limited coast licences may be granted with respect to stations in localities not served by a regular Government coast station;

such stations will be allowed to undertake a limited correspondence with ships at sea determined by the object of such correspondence. They must exchange public messages with such ships, coast and land stations as are designated in the licence, but with no other stations whatsoever.

For ship to shore working they must be operated in accordance with the provisions of the International Radiotelegraph Convention, and they must use such wavelengths as are specified in the licence.

The watches to be maintained and the number and class of operators to be carried are to be as specified in the licence, the regular form of which is annexed
10 hereto (Form No. W. 42).

6. *Public Commercial Licences.*—Public commercial licences may be granted to land stations open for public correspondence with certain other land stations designated in the licence.

The wavelengths to be used, the watches to be maintained and the number and class of the operators to be carried are to be as specified in the licence, the regular form of which is annexed hereto (Form No. W. 18).

Public commercial licences are also granted for receiving stations established for purposes of gain, such as receiving stations installed in theatres, halls, etc., for the purpose of giving radiotelephone concerts and for which an admission charge
20 is made. The regular form of licence is annexed hereto (Form No. W. 18).

7. *Private Commercial Broadcasting Licences.*—Private commercial broadcasting licences may be granted to land stations to be operated for the broadcasting by radiotelegraph or radiotelephone of news, information, entertainment or other service.

No tolls shall be levied or collected on account of any service performed by this class of station.

The working of the station must be strictly limited to the hours prescribed in the licence and the station must use such wavelength as is specified therein.

The station must be operated by a person who is the holder of a "First Class"
30 or a "Radiotelephone" Certificate of Proficiency in Radio.

The regular form of the private commercial broadcasting licence is annexed hereto (Form No. W. 69).

8. (i) *Private Commercial Licences.*—Private commercial licences may be granted to land stations to be operated in connection with the private correspondence of the licensee. Such stations will be limited to certain specific services which will be defined in the licence. Such stations shall not exchange messages with stations other than those specified in the licence, and except in the special case provided for in Section (ii) of this regulation, no tolls shall be levied or collected

on account of any business transacted, or messages sent to or from the station. This class of station must use such wavelengths as are specified in the licence. The watches to be maintained and the number and class of operators to be carried shall be as specified in the licence, the regular form of which is annexed hereto (Form No. 43).

(ii) In the case of private commercial stations established at points not provided with any other means of rapid communication, such as telegraph or telephone, or in the case of interruption to such service, the Minister may prescribe that the licensed station must accept messages to and from the public, and communicate with such stations as may be designated. In this event, the licensee shall be entitled to collect a toll for the handling of such public correspondence, the amount of such toll to be as approved by the Board of Railway Commissioners and as specified in the licence.

(iii) The Minister at his discretion may authorize the licensed station to communicate with certain specified ship stations when such ship stations are within certain areas or localities to be specified in the licence. Messages handled with such ships must be limited exclusively to the business of the licensee and no coast station charge shall be levied in respect of such messages.

9. *Experimental Licences.*—Experimental licences will be granted to stations intended for purely experimental purposes and operated with a view to the advancement of the art of radio. Applicants for such licences must state their technical attainments and the general lines on which they propose to pursue their investigations. It should be observed that the fact that the applicant desires to conduct experiments with his equipment frequently does not justify or require a licence of this class, as most experiments can be conducted within the limitations of an "Amateur Experimental Licence" or by the use of an artificial aerial.

In addition to the provisions contained in the regular form of experimental licence annexed hereto (Form No. W. 20) the following special regulations will apply to all experimental stations.

30

SPECIAL REGULATIONS FOR EXPERIMENTAL STATIONS

10. Applicants for an experimental licence must state in their application the wavelength or wavelengths they desire to use. The normal wavelengths for experimental stations are 175 metres spark and 275 metres C.W., and radio telephone. In addition the licensee is authorized to use for special work such other wavelengths as are prescribed in the licence.

11. When transmitting on wavelengths of 275 metres or less the station must be worked by a person holding an "Amateur Experimental" or a higher grade of Certificate of Proficiency (see Regulation No. 97), and when transmitting on wavelengths greater than 275 metres it must, if it be within the range of any com-

mercial or coast station, be worked by a person holding either a "First Class," "Second Class," or "Experimental" Certificate of Proficiency in Radiotelegraphy (see Regulations Nos. 93, 94 and 96).

12. The power used, measured at the terminals of the transformer, or generator, will normally be limited to $\frac{1}{2}$ kw.

In special cases, however, such as that of a commercial company desirous of testing and demonstrating apparatus, or of stations so far removed from any commercial station or route of navigation as to preclude any possibility of interference, the Minister may at his discretion permit the use of greater powers than $\frac{1}{2}$ kw.

10 13. The waves emitted must be as little damped as possible. In the case of spark stations the logarithmic decrement of a complete oscillation shall not exceed two-tenths and in the case of C.W. and radiotelephone stations the equivalent decrement shall not exceed that specified in the licence.

14. A distinctive call signal will be allotted to each station, commencing with the figure 9, e.g., 9AA, etc. This signal is to be transmitted twice at the termination of every transmission.

15. The regulations of the International Radiotelegraph Convention must, where applicable, be observed at the station.

16. The station, when operating, must listen for the signal "STP" which will
20 indicate that an experimental station is interfering with commercial business.

The latter signal will only be made use of by certain authorized Government stations and will not be used unless absolutely necessary. The signal "STP" will, whenever possible, be preceded by the call signal allotted to the experimental station to which the interference is attributed and will be followed by the call signal of the Government station. On receipt of the "STP" signal, experimental stations will absolutely cease to operate until the Government station gives the signal "Cancel STP."

17. The aerial must be connected to the transmitting apparatus only when actual communication is in progress or when measurements are being taken.

30 18. When a licensed station is located near a commercial station it must be provided with a connection with the local telephone exchange so that prompt communication may be established in case of interference.

19. *Amateur Broadcasting Licences.*—Amateur Broadcasting Licences may be granted to recognized radio associations. They will not be granted to individuals. Such licences will permit broadcasting on a wavelength of 250 metres at the hours and for the periods prescribed in the licence.

The normal range of amateur broadcasting stations will be limited to 25 miles.

An association licensed to operate an amateur broadcasting station may, subject to the approval of the Minister, authorize a station belonging to one of its members to broadcast on its behalf; such station whilst broadcasting shall use the call signal and wavelength allotted to the association. The association will be held responsible for the proper operation of the station in accordance with the provisions of the licence and the radio regulations.

20. *Amateur Experimental Licences.*—Amateur experimental licences may be granted to small stations used for instruction, amusement or experimental purposes.

In addition to the provisions contained in the regular form of amateur experimental licence annexed hereto (Form No. W. 44), the following special regulations will apply to all amateur experimental stations:—

SPECIAL REGULATIONS FOR AMATEUR EXPERIMENTAL STATIONS

21. The normal transmitting wavelengths for amateur experimental stations are as follows:—

Spark, 175 metres,

Continuous wave and radiotelephone, 150, 175, 200 and 225 metres.

The power used measured at the terminals of the transformer, or generator, must not exceed $\frac{1}{2}$ kw.

22. Amateur experimental stations must be so operated as not to interfere with the working of any Government or commercial, coast, land or ship station. In the event of interference by an amateur experimental station the Department will limit the power and wavelength authorized for such station. In the event of continued interference by an amateur experimental station the Department will cancel the licence issued for such station.

23. The station must be worked by a person holding an amateur experimental certificate of proficiency (see Regulation No. 97).

24. (a) The waves emitted must be as little damped as possible. In the case of spark stations the logarithmic decrement of a complete oscillation shall not exceed two-tenths and in the case of C.W. and radiotelephone stations the equivalent decrement shall not exceed that specified in the licence.

(b) The use of plain aerial or other untuned highly damped spark transmitters is not allowed.

25. A distinctive call signal will be allotted to each station, commencing with a figure, e.g., 3AA, etc., which signal must be sent not less than three times at the termination of every transmission.

26. The regulations of the International Radiotelegraph Convention must, where applicable, be observed by the station.

27. Broadcasting by amateur experimental stations is not permitted (see Regulation 19 for Amateur Broadcasting licence).

28. The station, when operating, must listen for the signal "STP" which will indicate that an amateur experimental station is interfering with commercial business.

The latter signal will only be made use of by certain authorized Government stations and will not be used unless absolutely necessary. The signal "STP" will, whenever possible, be preceded by the call signal allotted to the amateur experimental station to which the interference is attributed and will be followed by the
10 call signal of the Government station. On receipt of the "STP" signal all amateur experimental stations will cease to operate until the Government station gives the signal "Cancel STP."

29. The aerial must be connected to the transmitting apparatus only when actual communication is in progress or when measurements are being taken. At all other times, such as when the spark is being tested or sending is being practised, the aerial must be disconnected.

30. When the licensed station is in the vicinity of a commercial station it should be connected with the local telephone exchange so that instant communication may be established in case of interference.

20 31. *Private Receiving Licences.*—Private receiving licences will be granted for stations to be established for "reception only" and which are not used for the purpose of gain.

Receiving stations when using a receiver of the regenerative type for the reception of organized radiotelephone programs must avoid increasing regeneration to the point at which the receiver begins to oscillate.

32. *Technical and Training School Licences.*—Technical and training school licences will be granted to stations intended for educational purposes; they will be afforded every facility for the work they propose to undertake compatible with any special local conditions such as the existence of a Government or commercial station
30 in their vicinity; in general, they will be subject to the same conditions as experimental stations and amateur experimental stations. The regular form of the licence is annexed hereto. (Form No. W. 66.)

33. *Ship Station Licences.*—Ship station licences will be granted to stations on British ships registered in Canada.

The regulation form of the licence is annexed hereto. (Form No. W. 19.)

33. (b) "The Minister may require as a condition to the issue of any licence to be granted by him under the authority of this Act that the licensee shall pay to the Minister, and maintain throughout the period during which the licence or any

renewal thereof is in force, a deposit of \$50 as security for the payment of coast station and landline delivery charges in respect of radio telegrams originating on board any vessel in respect of which the licence is issued and transmitted via any coast station, domestic or foreign, which deposit may be appropriated by direction of the Minister for the payment of any such charges which are not otherwise paid in due course and shall be returned at the expiry of nine months from the termination of the licence subject to such deductions as shall have been made for payment of any of the charges aforesaid."

CLASSIFICATION OF SHIP STATIONS

10 *Ship Stations* will be classified as follows:—

34. *Class 1.*—All "seagoing" passenger vessels registered in Canada with an average speed of 15 knots or more, carrying 50 or more persons and plying between ports more than 200 miles apart; also all "seagoing" passenger vessels registered in Canada with an average speed of 13 knots or more, carrying 200 or more persons and plying between ports more than 500 miles apart.

35. *Class 2a.*—All "seagoing" passenger vessels registered in Canada affected by the provisions of Section 4 of The Radiotelegraph Act, which do not come under Class 1.

20 *Class 2b.*—All vessels registered in Canada plying on "coasting voyages" or on the "inland waters" of Canada which are affected by the provisions of Section 4 of the Radiotelegraph Act.

36. *Class 3.*—All vessels registered in Canada not affected by the provisions of Section 4 of The Radiotelegraph Act, but which have been voluntarily equipped with radiotelegraph apparatus.

The terms "seagoing," "coasting voyage," and "inland waters" are to be as defined in section 72 of The Canada Shipping Act, Chapter 113, R.S. 1906.

REGULAR EQUIPMENT

30 37. Vessels in Class 1.—The regular radiotelegraph equipment must have a minimum range of 100 nautical miles at all hours of the day and night with a similar equipment on a similar vessel and with all Canadian Government coast stations.

38. (a) The normal wavelength of all ship stations shall be 600 metres except in the case of vessels plying on the Great Lakes.

(b) The normal wavelength of ship stations on vessels plying on the Great Lakes shall be 715 metres.

39. In the case of small vessels on which it is materially impossible to use transmitting wavelength of 600 metres or 715 metres such vessels may employ such shorter wavelengths as may be prescribed in the schedule attached to licence issued therefor.

40. The logarithmic decrement of a complete oscillation must not exceed two-tenths (0·2).

41. The power used by the transmitter, measured at the terminals of the generator of the station, must not, under normal circumstances, exceed 1 kw., except in the special case provided for in article 35, paragraph 2, of the International 10 Radiotelegraph Convention of London, 1912.

42. In the case of equipments using a power of more than 50 watts, an arrangement must be provided whereby several ranges, each less than the normal range, may be speedily obtained, the shortest range being approximately 15 nautical miles.

43. The use of "plain aerial" except in cases of distress or in installations using a power of less than 50 watts, is prohibited.

44. Vessels in Class 2.—Regulations No. 37 to No. 43, inclusive, shall apply to the equipments on vessels in Classes 2a and 2b.

45. Vessels in Class 3.—Regulations No. 38 to No. 43, inclusive, shall apply to equipments on vessels in Class 3.

20

EMERGENCY EQUIPMENTS

46. *Class 1.*—Every vessel in Class 1 must carry an emergency source of power, instantly available, which shall be capable of operating the equipment for six hours, under normal conditions, with a minimum range of 80 nautical miles.

47. *Class 2.*—Vessels in Classes 2a and 2b must carry a similar source of power with the exception that the minimum normal range of the equipment is reduced to 50 nautical miles.

48. *Class 3.*—Vessels in Class 3 will not be required to carry emergency sets.

49. *Emergency Equipments Generally.*—(1) The emergency equipment in its entirety, must in all cases be placed in the upper part of the ship, as high as practicable and in a position of the greatest safety.

(2) The emergency equipment may take the form of complete transmitter. Storage battery sets, of sufficient capacity to operate the regular radiotelegraph equipment of the vessel for the specified time, are, however, strongly recommended.

(3) A plain aerial transmitter may be installed as an emergency equipment, provided (subject to the provision of Regulation No. 43) the use of the same is confined exclusively to distress calls.

(4) Regulations No. 46 to No. 49, inclusive, will become effective on and after December 1, 1914.

50. *Spare Parts*.—Every ship station shall carry a reasonable number of spares of such parts of both the main and emergency radiotelegraph equipments as are subject to undue wear, deterioration or liability to accident.

51. *Certificate of Inspection*.—The radiotelegraph installation on all British
10 vessels registered in Canada will be subject to inspection by an officer of the Department of Marine and Fisheries at least once a year, who, if the apparatus is found to comply with the terms of The Radiotelegraph Act and the regulations issued thereunder, shall issue to the vessel a "Radiotelegraph Inspection Certificate" certifying that the equipment has been duly inspected and that it complies with the provisions of the licence issued therefor by the Minister of Marine and Fisheries, such certificate to be posted in the radiotelegraph cabin.

52. *Time*.—Radiotelegraph stations on vessels plying on the West Coast shall observe Pacific time, and those on the Great Lakes and East Coast, Eastern Standard time.

20

WATCHES

53. *Vessels in Class 1*.—A constant watch must be maintained at the radiotelegraph stations on all vessels in Class 1 (Regulation No. 34) whilst they are en route, and two operators, holding First-Class Certificates must be carried on such vessels.

54. *Vessels in Class 2a*.—A constant watch from 8 a.m. to 3 p.m. and a watch during the first ten minutes of every other hour of the day must be maintained at the radiotelegraph stations on all vessels in Class 2a (Regulation No. 35) whilst they are en route; the ten-minute watch may be maintained by an operator holding a "Second-Class Certificate of Proficiency" or by a person holding a regular "Third-Class Certificate."

30 55. *Vessels in Class 2b*.—Watches as hereinafter specified in Regulations No. 57 to No. 67, must be maintained at the radiotelegraph stations on all vessels in Class 2b, whilst they are en route.

56. (1) *Vessels in Class 3*.—No fixed watches need be maintained at radiotelegraph stations on vessels in Class 3 (Regulation No. 36) when plying on a coasting voyage or on the Great Lakes on the runs specified in Regulations 57 to 62.

(2) Vessels in Class 3 plying on transoceanic voyages, and carrying one operator, must keep watches as specified in Regulation 56a.

56a. Vessels carrying one operator, and plying on runs not covered by sections 57 to 62, must whilst en route maintain watches as follows:—

Belt A.—East Atlantic and European.

From Long. 30° W. to Long. 30° E., including Baltic, Mediterranean and Black Seas.

0800 to 1000

1200 to 1400

1600 to 1800

2000 to 2200 G.M.T.

10 *Belt B.*—Indian Ocean.

From Long. 30° E. to Long. 90° E., including Red Sea and Persian Gulf.

0000 to 0200

1200 to 1400

1600 to 1800

2000 to 2200 G.M.T.

Belt C.—Australasian (Western).

From Long. 90° E. to Long. 160° E.

0000 to 0200

0400 to 0600

20 1200 to 1400

2000 to 2200

Belt D.—Australasian (Eastern).

From Long. 160° E. to Long. 140° W.

0000 to 0200

0400 to 0600

0800 to 1000

2000 to 2200 G.M.T.

Belt E.—East Pacific.

From Long. 140° W. to the Western Coast of America, thence southward
30 along Long. 70° W.

0000 to 0200

0400 to 0600

1600 to 1800

2000 to 2200 G.M.T.

Belt F.—West Atlantic.

From Eastern Coast of America, and Long. 70° W. (South of Cape Horn)
to Long. 30° W.

0000 to 0200

1200 to 1400

40 1600 to 1800

2000 to 2200 G.M.T.

PACIFIC COAST

57. *Class 2b.—Local Coasting Runs.*—Vessels in Class 2b, when plying on ferry or local runs between any ports in British Columbia south of Queen Charlotte Sound or between any ports in the above province north of that Sound and not steaming for more than 16 hours in any day, must, whilst en route, maintain watches during the following periods:—

- 7.30 a.m. to 8.00 a.m. and the last half hour of every hour until 8.00 p.m.
- 9.30 p.m. to 10.00 p.m.
- 11.30 p.m. to 12.00 midnight.
- 10 3.30 a.m. to 4.00 a.m.
- 5.30 a.m. to 6.00 a.m.

In the case of vessels affected by subsection (c) of section 4 of The Radiotelegraph Act (500 persons—ports more than 20 miles apart), the above watches need only be kept whilst the boats are en route between ports more than 20 miles apart.

58. Vessels in Class 2b, when plying on ferry or local runs between any ports in British Columbia south of Queen Charlotte Sound or between any ports in the above province north of that Sound and steaming for more than 16 hours in any one day, must, whilst en route, maintain watches as prescribed in Regulation No. 57, 20 with the exception that a watch may be maintained from 1.30 a.m. to 2.00 a.m. instead of from 3.30 a.m. to 4.00 a.m., and no watch need be kept between the hours of 2.00 a.m. and 9.30 a.m.

59. *Class 2b.—Coasting Vessels Plying North and South.*—Vessels in Class 2b plying on runs between ports in British Columbia south of Queen Charlotte Sound, and ports in the same province, north of that Sound, or vice versa, must, whilst en route, maintain watches during the following periods:—

- 7.30 a.m. to 8 a.m.
- 10.30 a.m. to 11.00 a.m.
- 1.30 p.m. to 2.00 p.m.
- 30 4.30 p.m. to 5.00 p.m.
- 7.30 p.m. to 8.00 p.m.
- 10.30 p.m. to 11.00 p.m.

If, during these periods, the vessel is in the immediate vicinity of any place mentioned in the lists given in Regulations 60 and 61, communications must be established with the coast station shown or should the vessel reach such vicinity out of the above periods, the ship station must call such coast station until communication is established or it becomes out of range.

60. *North Bound.*—

Station	Locality	
	Day Time Between 7.30 a.m. and 11.00 p.m.	Night Time Between 11.00 p.m. and 7.30 a.m.
Gonzales Hill.....	Trial Island.....	Trial Island.
Point Grey.....	The First Narrows or Abeam Porlier Pass.	The First Narrows or Abeam Porlier Pass.
Cape Lazo.....	Abeam.....	
10 ".....	Cape Mudge.....	Cape Mudge.
Alert Bay.....	Blinkensop Bay.....	
".....	Abeam.....	Abeam.
".....	Pine Island.....	Pine Island.
Bull Harbour.....	".....	"
".....	Egg Island.....	Egg Island.
".....	Before reaching Harold Point..	Before reaching Harold Point.
".....	Ivory Island.....	Ivory Island.
Digby Island.....	Vancouver Rock.....	
".....	Watson Rock.....	Watson Rock.
20 ".....	Abeam.....	Abeam.
".....	Hodgson Island.....	
".....	Pointers.....	Pointers.

61. *South Bound.*—

Station	Locality	
	Day Time Between 7.30 a.m. and 11.00 p.m.	Night Time Between 11.00 p.m. and 7.30 a.m.
Digby Island.....	Pointers.....	Pointers.
".....	Hodgson Island.....	
30 ".....	Abeam.....	Abeam
".....	".....	"
".....	Lawyer Island.....	Lawyer Island.
Bull Harbour.....	Vancouver Rock.....	Vancouver Rock.
".....	Ivory Island.....	
".....	Harold Point.....	Harold Point.
".....	Egg Island.....	Egg Island.
".....	Pine Island.....	Pine Island.
Alert Bay.....	".....	"
".....	Abeam.....	
40 ".....	Blinkensop Bay.....	Blinkensop Bay.
Cape Lazo.....	Chatham Point.....	
".....	Abeam.....	Abeam.
Point Grey.....	Sisters.....	Sisters.
".....	Abeam.....	Abeam.
Gonzales Hill.....	Active Pass.....	Active Pass.

GREAT LAKES AND EAST COAST

62. *Class 2b.*—*Vessels Plying on the Great Lakes and on Coasting Voyages on the East Coast.*—Vessels in Class 2b plying on voyages of more than 300 miles between terminal ports on the Great Lakes or East Coast must maintain watches whilst en route as follows:—

- 7.00 a.m. to 7.30 a.m.
- 10.00 a.m. to 10.30 a.m.
- 1.00 p.m. to 1.30 p.m.
- 4.00 p.m. to 4.30 p.m.
- 10. 7.00 p.m. to 7.30 p.m.
- 10.00 p.m. to 10.30 p.m.

Communication must also be established with each coast station when abeam, irrespective of whether such position is reached during the above periods or not.

63. Vessels in Class 2b, plying on voyages of less than 300 miles but more than 50 miles between terminal ports and not steaming for more than 16 hours out of the 24, must maintain watches whilst en route as follows:—

- 8.00 a.m. to 8.30 a.m. and the first half hour of every hour until 8.30 p.m.
- 10.00 p.m. to 10.30 p.m.
- 20 12.00 p.m. to 12.30 a.m.
- 4.00 a.m. to 4.30 a.m.
- 6.00 a.m. to 6.30 a.m.

64. Vessels in Class 2b, plying on voyages of less than 300 miles but more than 50 miles between ports and steaming for more than 16 hours in any one day, must, whilst en route, maintain watches as prescribed in Regulation No. 63, with the exception that 2.00 a.m. to 2.30 a.m. is substituted for 4.00 a.m. to 4.30 a.m., and no watch need be kept between the hours of 2.30 a.m. and 10.00 a.m.

66. Vessels in Class 2b, plying on voyages of less than 50 miles between terminal ports and not steaming more than 10 hours out of the 24, must, whilst en route, 30 maintain a constant watch.

67. Vessels in Class 2b, plying on voyages of less than 50 miles between terminal ports and steaming for more than 10 hours in the 24 must, whilst en route, maintain watches as prescribed in Regulation No. 64.

OPERATION

68. *Power Available.*—Power for the operation of the main equipment shall be available during the periods a watch is being maintained under Regulations No. 53 to No. 67.

69. *Control of Ship Stations.*—The operation of the radiotelegraph station on any vessel shall be under the supreme control of the master of such vessel.

70. *Censorship by the Master of a Vessel.*—The master of a vessel shall have the right to censor all messages addressed to or transmitted by a radiotelegraph station on board his vessel, but such master shall not divulge to any person (other than the properly authorized officials of the Government or a competent legal tribunal), or make any use whatever of any message coming to his knowledge through the exercise of such censorship, nor shall the master or any operator divulge to any person (other than the properly authorized officials of the Government or a
10 competent legal tribunal), or make any use whatever of any message (other than a message of distress), coming to his knowledge and not intended for the said station.

71. *Form W. 40.*—A copy of Form W. 40 must be posted in every radiotelegraph station; these forms may be obtained from the Deputy Minister of Marine and Fisheries on request.

72. *Secrecy of Messages.*—(a) No message shall be delivered, or its contents divulged, to any person except the addressee, his or her accredited agent, or such properly authorized persons as are essential for the forwarding of such message to its destination;

(b) Any person who makes any use of any message or the contents thereof
20 which has been delivered or divulged to him or her in violation of Regulation No. 72 (a) shall be liable on summary conviction to the penalty prescribed for the violation of these regulations.

73. *Superfluous Signals.*—The transmission of superfluous signals by any ship or coast station is absolutely prohibited; trials and practices are forbidden except under such circumstances as to preclude the possibility of interference with other stations.

74. *Profane Language.*—No person shall transmit or make a signal containing profane words or language.

OPERATORS

30 75. *Operators.*—The apparatus of all coast, land or ship stations, other than private receiving stations, must only be worked by persons holding regular Certificates of Proficiency in Radio, and who have subscribed to a Declaration of Secrecy, as prescribed in Section 6 of The Radiotelegraph Act.

76. *British Subjects.*—All operators on coast, ship or land stations must be British subjects, and the different classes of stations must be worked by operators

holding Canadian "Certificates of Proficiency" (subject to the provisions of section 77) not inferior to those hereinafter prescribed in Regulations No. 80 to 86, for the respective classes of stations.

77. *Ship Stations*.—The holders of Certificates of Proficiency in Radio issued in accordance with the provisions of the International Radiotelegraph Convention by His Majesty's Postmaster General, the Administration of any British self-governing dominion or colony, or the Government of India, will (subject to the provisions of these regulations) be entitled to act as radio operators on any Canadian vessel, so long as operators holding Canadian Certificates are accorded similar
10 privileges in respect of vessels belonging to such Administrations.

78. *Certificates of Proficiency*.—The following Certificates of Proficiency in Radio are issued by the Department:—

Ship Stations—

- (1) First Class Certificate,
- (2) Second Class Certificate,
- (3) Third Class (Watcher's) Certificate,
- (4) Emergency Certificate,
- (5) Radiotelephone Certificate.

Land and Coast Stations—

- 20
- (6) Extra First Class Certificate,
 - (7) First Class Certificate,
 - (8) Second Class Certificate,
 - (9) Third Class Certificate,
 - (10) Emergency Certificate,
 - (11) Radiotelephone Certificate,
 - (12) Experimental Certificate,
 - (13) Amateur Experimental Certificate.

79. *Emergency Certificates*.—In case of emergency in which it is impossible for an operator to attend a regular examination, the Minister may hold an emer-
30 gency examination and shall have power to issue emergency certificates of any class. Such certificates shall not be valid for more than six months.

Any person holding an emergency certificate of proficiency must promptly apply for permission to attend an examination as provided by Regulation 87, and when notified of the date and place of examination he is hereby further required to attend a regular examination for a certificate of proficiency within the requirements of Regulations 89 to 97 inclusive, and the said emergency certificate shall expire and cease to be of effect on the day on which the result of such regular examination is published.

OPERATORS TO BE CARRIED

80. *Ships in Class 1.*—Ships in Class 1 must carry two operators holding First Class Certificates.

81. *Ships in Class 2a.*—Ships in Class 2a must carry two operators, one First Class and one Second Class, or one First Class and one Third Class.

82. *Ships in Class 2b.*—Ships in Class 2b must carry one First Class operator.

83. *Ships in Class 3.*—Ships in Class 3, if they undertake public correspondence, must carry one First Class operator or, if their service is limited exclusively to the ship's business, one Second Class operator.

10 83A. In addition to the above, operators employed on ships fitted with radio direction finding apparatus must be the holders of radio Certificates of Proficiency, endorsed "Competent to work Direction Finding Apparatus."

84. *Coast Stations.*—(1) All public coast stations open for public correspondence and maintaining a constant watch must carry three operators, each of whom must hold a Canadian First Class Certificate of Proficiency. The Minister shall, however, have power in special cases to permit the employment of other persons on such stations for the purpose of maintaining the constant watch above mentioned, provided such persons are capable of transmitting and receiving in the Morse Code at a speed of twenty words a minute as prescribed in subsections (a) and (b) of Regulation No. 89 and provided the station is in charge of an operator
20 holding a First Class Certificate of Proficiency.

(2) This regulation will become effective on and after the 1st of January, 1915.

85. All other coast stations shall carry such operators holding such certificates as are specified in the licence issued for the station under Regulation No. 5.

86. *Land Stations.*—Land stations (commercial, experimental, etc.) shall carry such operators holding such certificates as are specified in the licence issued for the station under Regulations Nos. 6, 7, 8, 9, 19, 20 or 32, according to the classification of the station.

30 EXAMINATION FOR RADIOTELEGRAPH CERTIFICATES OF PROFICIENCY

87. *Applications.*—Applications for permission to attend examinations for any certificate of proficiency must be made to the Deputy Minister of Marine and Fisheries on the special form provided for that purpose (W. 13). The date and place of examination will be notified to the candidate as soon as possible after receipt of the application.

PERSONS ELIGIBLE TO ATTEND EXAMINATION

88. (a) No person shall be permitted to attend examination for any of the following classes of Certificates of Proficiency in Radio:—

Ship Stations—

First Class Certificate,
 Second Class Certificate,
 Third Class (Watcher's) Certificate,
 Emergency Certificate,
 Radiotelephone Certificate,

10 *Land and Coast Stations—*

Extra First Class Certificate,
 First Class Certificate,
 Second Class Certificate,
 Third Class (Watcher's) Certificate,
 Emergency Certificate,
 Radiotelephone Certificate,

- (i) who is not a natural born British subject;
- (ii) who has at any time been of enemy nationality;

20 Provided, however, that any naturalized British subject who has not or whose parents or either of them have not at any time been of enemy nationality may be admitted to examination if his application be approved by the Minister of the Department of Marine and Fisheries.

(b) Candidates for examination for First Class Certificate of Proficiency must be not less than eighteen years of age.

(c) For the purpose of this regulation a person shall be deemed to be of enemy nationality if he has at any time been the subject of a state with which Great Britain has been at war within the period of ten years immediately preceding the 15th day of October, A.D. 1919.

SHIP STATIONS

30 89. *First Class Certificate.*—Candidates for First Class Certificates will be examined in the following subjects:—

- (1) Transmission and reception at a speed of twenty words a minute;
- (2) Adjustment, care and operation of apparatus;
- (3) The regulations applicable to the exchange of radiotelegraph traffic.

The examination will consist of two sections "Practical" and "Written":—

" PRACTICAL SECTION "

(A) To send on an ordinary radiotelegraph key for five consecutive minutes at not less than the prescribed speed (viz., twenty words a minute, five letters being counted as one word); the accuracy of signalling, the correct formation of the letters, and the correctness of spacing will be taken into account.

(B) To receive and write legibly for not less than five consecutive minutes at the prescribed speed from signals received on a double headgear telephone receiver as ordinarily used for radiotelegraph reception.

10 (C) To connect up the apparatus with the help of a diagram of connections.

(D) To name the principal parts of the apparatus.

(E) To mention the most common faults which develop in the apparatus of the set in which he is being examined and the means usually taken to remedy them.

(F) To trace, locate and remedy several such faults.

(G) To adjust the apparatus after it has been placed out of adjustment.

(H) To change the wavelength of the transmitter from 300 to 600 metres and vice versa.

(I) To reduce or increase the transmitting power.

20

" WRITTEN " SECTION

(J) To complete a diagram of connections of the set in which the candidate is being examined.

(K) To answer seven technical questions on the equipment, including storage battery and emergency set, if any.

30 (L) To answer nine questions on the methods of handling radiotelegraph messages and the regulations applicable to the exchange of radiotelegraph traffic and communications as set out in the latest edition of the British Postmaster General's Handbook and the service regulations annexed to the International Radiotelegraph Convention in force; the questions will also include the counting, checking and computation of tolls on three test messages. The candidate will also be required to have a thorough knowledge of the use of the "C.P.R.," "Western Union" and "C.N.T." tariff books and the "Official List of Radiotelegraph Stations" issued by the International Telegraph Bureau. Given these books, he will be required to compute the charges on a test message from any ship via any Canadian coast station to any telegraph office in the world.

90. *Second Class Certificate.*—Candidates for Second Class Certificates must pass a satisfactory examination on all the subjects prescribed for the First Class, with the exception that the minimum speed of transmission and reception is reduced to twelve words a minute. Holders of this certificate will only be allowed to operate stations on ships in Classes 2a and 3, as specified in Regulations No. 81 and No. 83.

91. *Third Class Certificate.*—Third Class (Watcher's) Certificate will authorize the holder to work at one station only, the name and call signal of which will be designated in the certificate.

The examination will be practical and viva voce and the candidate will be
10 required:—

(1) To distinguish from other signals the call signal of the station designated in the certificate, when it is repeated several times, at the rate of ten words a minute;

(2) To distinguish from other signals the distress call "S.O.S." when it is repeated several times, at the rate of ten words a minute;

(3) To adjust the receiver for incoming signals on the wavelength normally used;

(4) To test the detector with a buzzer or other testing appliances and to adjust it for the efficient reception of signals on the normal wavelength.

20 91A. Candidates for endorsement of Certificate "Competent to work Direction Finding Apparatus" will be required to pass an examination in the following:—

GENERAL

(a) To draw a diagram of connections of the set in which the candidate is being examined and to name thereon the different components of the same.

VIVA VOCE

(a) To mention the most common faults which develop in the direction finding apparatus in which he is being examined, and the means taken to locate and remedy them.

(b) To give an explanation of the procedure followed in taking bearings and to
30 state the precautions which must be observed to produce accurate results under various conditions.

PRACTICAL

(a) To connect up a set of direction finding apparatus.

(b) To trace, locate and remedy common faults in the apparatus.

(c) To adjust the apparatus after it has been placed out of adjustment.

(d) To take a series of bearings from a given station and to demonstrate in a practical manner the method followed in arriving at the final results.

COAST AND LAND STATIONS

92. *Extra First Class Certificate.*—Candidates for Extra First Class Certificates, in addition to taking a thorough examination on the subjects set out in sections (c) to (L) of Regulations No. 89, will be required:—

“ PRACTICAL ” SECTION

(A) To send and receive in the International Morse Code for five minutes at a speed of not less than twenty-five words a minute, under the conditions prescribed in sections (A) and (B) of Regulation No. 89;

10 (B) To trace, locate and remedy faults in standard radiotelegraph installations, of not less than five kilowatt power, including valve detector, gasoline engines, D.C. and induction motors and to adjust the same for efficient operation.

(c) The practical use of a wavemeter.

“ WRITTEN ” SECTION

(D) To answer seven questions on the principles governing the working of radiotelegraph installations, internal combustion engines and dynamo electric machinery, as used in connection with radiotelegraph installations;

20 (E) To answer seven questions on the International Radiotelegraph Convention and regulations annexed thereto, the Regulations issued by the Minister of Marine and Fisheries and the procedure governing the obtaining of bearings from Direction Finding stations, the general organization of a radiotelegraph service, including the procedure followed in connection with the transfer of business to and from land lines and the handling of radiotelegraph abstracts and accounts.

The holder of an Extra First Class Certificate will be authorized to operate on any Canadian coast, land or ship station.

30 93. *First Class Certificate.*—The examination for the First Class Coast Certificate will be similar in all respects to that for the First Class Ship Station Certificate, with the exception that the candidate will be required to have a knowledge of the care and operation of gasoline engines.

94. *Second Class Certificate.*—The examination for the Second Class Coast Certificate will be similar to that for the First Class, with the exception that the minimum speed of transmission and reception is reduced to twelve words a minute.

95. *Third Class Certificate.*—The examination for the Third Class Coast Certificate will be similar to that for the Third Class Ship Certificate.

96. *Experimental Certificate*.—Candidates for an Experimental Certificate will be required:—

“ PRACTICAL ” SECTION

- (A) To send on an ordinary radiotelegraph key for five consecutive minutes at a speed of not less than twelve words a minute, five letters being counted as one word; the accuracy of signalling, the correct formation of the letters, and the correctness of spacing will be taken into account;
- 10 (B) To receive and write legibly for not less than five consecutive minutes at a speed of not less than twelve words a minute, five letters being counted as one word; from signals received on a double headgear telephone receiver as ordinarily used for radiotelegraphic reception, and to distinguish the signals “ SOS,” “ STP,” and his own call signal from among other signals, when sent at a speed of twenty words a minute;
- (C) To reduce the transmitting power;
- (D) To change the wavelength of the transmitter within the limits prescribed in the licence issued for the station;
- (E) To adjust the apparatus after it has been placed out of adjustment;

“ WRITTEN ” SECTION

- 20 (F) To complete a diagram of connections of the set in which the candidate is being examined;
- (G) To answer seven technical questions on the equipment, including storage battery and emergency set, if any;
- (H) To answer nine questions on the procedure governing the handling of radiotelegraph messages and the regulations applicable to the exchange of radiotelegraph traffic and communications, particularly as set out in part 5, sections 60 to 91 of the Postmaster General’s Handbook for Wireless Telegraph Operators, section 6, articles 20 to 35 of the regulations annexed to the International Radiotelegraph Convention, and the Minister’s Regulations applicable to the operation of Experimental Stations.

- 30 97. *Amateur Experimental Certificate*.—Candidates for an amateur certificate will be examined in the adjustment and operation of the apparatus they propose to operate and will be required to have a satisfactory knowledge of the Department regulations governing the working of amateur experimental stations (Regulations Nos. 21 to 30), and those annexed to the International Radiotelegraph Convention of London, applicable to the working of stations generally, particularly section 6, articles 20 to 35, entitled “ Transmission of Radiotelegrams.”

The examination will be practical and viva voce, and the candidates will be required to send and receive in the International Morse Code at a speed of not less than ten words a minute and to distinguish from other signals the signals "SOS," "STP" and the call signal of his station, when repeated several times at a speed of ten words a minute.

EXAMINATIONS GENERALLY

98. *Places at which Examinations will be held.*—Examinations will generally be conducted at the Department of Marine and Fisheries, Ottawa; special arrangements will, however, be made where circumstances permit for holding an examination at any radiotelegraph station or any technical school of telegraphy at which suitable apparatus is provided for the purpose.

99. The Certificates of Proficiency will indicate the system or systems of radiotelegraphy under which the candidate's examination was conducted.

100. *Failure to Pass.*—In case of failure a candidate will not ordinarily be re-examined until after the lapse of three months. An additional fee will be payable in respect of the further examination.

101. *Suspension of Certificate.*—Should it be proved to the satisfaction of the Minister that the holder of a "Certificate of Proficiency" has wilfully or negligently failed to comply with the provisions of the International Radiotelegraph Convention and Regulations, or of these regulations, or of any other regulations which may be issued from time to time for his guidance, the certificate may, at the discretion of the Minister, be suspended or cancelled.

INSPECTION OF STATIONS

102. *Inspection.*—Any duly authorized officer of the department may, from time to time, and at all reasonable times, enter upon any coast, land or ship station, within the jurisdiction of Canada, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radiotelegraphy and all other telegraphic instruments and apparatus fixed or being in such station, also the working and user of such apparatus and telegraphic instruments, and all books and papers used in connection with the operation of such station. His authority will be in the form of a letter signed by the Deputy Minister of the Department of Marine and Fisheries.

OPERATION OF SHIP STATIONS WITHIN THE TERRITORIAL WATERS OR HARBOURS OF OF CANADA

103. *Ship Stations in Territorial Waters.*—*The Radiotelegraph Stations on board ships (other than H.M. ships of war or Canadian Government vessels) shall not be worked while such ships are within the territorial waters of Canada, unless*

specific permission is granted therefor by the controlling Canadian coast stations for the locality, and then only provided such working does not interfere with the operation of any coast station established in Canada, and that the provisions of the Radiotelegraph Convention of London, 1912, and the Service Regulations, annexed thereto, are strictly observed.

104. *Ship Stations in Harbours.*—(a) The Radiotelegraph Stations on board ships (other than H.M. ships of war or Canadian Government vessels) shall not be worked whilst such ships are within a harbour of the Dominion of Canada, except as follows:—

- 10 (i) When direct communication by messenger, visual signals or other method between ship and shore is impracticable and then only for the purpose of exchanging with the nearest coast station messages relating exclusively to the business of the ship.
- (ii) For the purpose of making or answering signals of distress.
- (b) For the proper enforcement of the above, ships in Canadian harbours shall, if so instructed by a Canadian Government Radiotelegraph Inspector, or other properly authorized officer, completely disconnect the aerial wires from their radio apparatus, the end of such wires being suspended entirely clear of the radiotelegraph cabin, in such a manner as to show they are properly disconnected.
- 20 (c) I. Foreign Men of War and service aircraft accompanying them, lying in a Naval port, or in any harbour which is close to a Naval port shall obtain permission from the Senior Naval Officer at the Naval Port to use their radiotelegraph apparatus, stating system, wavelength and times of transmission proposed.

II. Foreign Men of War and service aircraft accompanying them, lying in any harbour which is not close to a Naval Port shall obtain permission from the permanent Radio Inspector at that port to use their radiotelegraph apparatus; and at ports where there is no permanent Radio Inspector, they shall conform to the following regulations:

- 30 (1) Transmission on 600 metres is forbidden, except for the purpose of making or answering signals of distress.
- (2) Interference with Naval, Army or Air Force Signalling, or any land or coast station, must be avoided.
- (3) Transmission must be discontinued on request from (a) any Naval Authority, (b) the port authorities, (c) any land or coast station.
- (4) Protracted signalling using apparatus transmitting other than pure continuous waves must be avoided.
- (5) If there is a British or Dominion Fleet or Warship lying in the harbour, the Senior Naval Officer should be consulted.

PENALTY

105. Any person who violates any of the provisions of these regulations shall be liable on summary conviction to a penalty not exceeding fifty dollars and costs or three months' imprisonment.

EXTRACT FROM AIR REGULATIONS 1919

110. "No person shall install or work a radiotelegraph or telephone apparatus in any aircraft primarily registered in Canada, except in accordance with the terms of a licence granted by the Minister of Marine and Fisheries, and no person shall work any radiotelegraph or telephone apparatus on any aircraft, except in accordance with the provisions of the International Radiotelegraph Convention and the Service Regulations annexed thereto."

PRIVATE RECEIVING LICENCE

W. 68 (Est'd. May, 1922)

Radiotelegraph

Branch

No.....

Year 192.... 192....



LICENCE TO OPERATE A RADIO RECEIVING EQUIPMENT

(Issued under the Radiotelegraph Act, Statutes 1913, Chapter 43)

.....
(Christian names in full) (Surname)
is hereby licensed to operate a radio receiving equipment at
20
(Street and number)
.....
(City or Town) (Province)

This licence shall be in force from the day of the date hereof, until 31st day of March next, unless sooner forfeited.

Received the sum of one dollar (\$1.00) licence fee, this.....
day of.....A.D. 192....

A. JOHNSTON,

*Deputy Minister, Department of
Marine and Fisheries.*

30

ORIGINAL
To be handed
to Licensee.

Countersigned.....

Please keep this licence available for inspection.

(on back of licence)

SECURITY OF MESSAGES

1. The licensee shall not divulge to any person (other than the properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus.

This does not apply to broadcasted concerts or programs addressed to the General Public.

10 Regulation 105. Any person who violates any of the provisions of these regulations shall be liable on summary conviction to a penalty not exceeding fifty dollars and costs or three months' imprisonment.

NOTICE

Irregular working and infractions of the radio regulations by transmitting stations should be immediately reported to the Director of Radio, Department Marine and Fisheries, Ottawa.

When using a receiver of the regenerative type for the reception of radio-telephone programs, please avoid increasing regeneration to the point at which the receiver begins to oscillate, otherwise you will cause interference with neighbouring receiving equipments.

LIMITED COAST STATION LICENCE

W. 42.

Limited Coast
Station Licence.

19... ..

Licence No... ..

Call Signal... ..

DEPARTMENT OF MARINE AND FISHERIES



DOMINION OF CANADA

LICENCE TO USE RADIO

10

Issued in accordance with provisions of the Radiotelegraph Act, Chapter 43,
Statutes 1913, and the Regulations made thereunder.

The herein named... ..

.....
.....

resident of... ..
hereinafter called the Licensee, is hereby licensed to establish and operate a radio
coast station situated at... ..

20 for the term of one year commencing on the first day of April, 19 , and terminating
on the thirty-first day of March, 19 , and to install and operate at such station the
apparatus mentioned in the schedule hereto, on payment of the sum of fifty dollars
(\$50), being the licence fee for the privilege above named.

This licence is subject to the Act and Regulations above referred to and to
the following terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several
meanings hereinafter assigned to them unless there be something, either in the sub-
ject or context, repugnant to such construction, that is to say:—

The term " Minister " means the Minister or the Deputy Minister of the Depart-
ment of Marine and Fisheries for the time being, the term " Radio " means and
includes " Radiotelegraph " and " Radiotelephone," and " International Radiotele-
graph Convention " means the International Radiotelegraph Convention and Regu-
lations annexed thereto specified in the schedule.

2. (i) The licensee shall not establish, install, or work any apparatus for radio except the apparatus hereinafter called "the licensed apparatus," specified in the said schedule hereto, nor use wavelengths other than those specified therein.

(ii) The use of the licensed apparatus shall, except in cases of distress, be limited to the exchange of messages with such stations, vessels or lines of vessels as are specified in the schedule.

(iii) No tolls, fees or other consideration shall be received, levied or collected by the licensee until the same have been approved of by the Board of Railway Commissioners for Canada.

10 3. The licensee shall so work the licensed apparatus as not to interfere with the working of any radio station established in Canada or the territorial waters abutting on the coast of Canada (whether on shore or on any ship), by or for the purpose of the Minister or any Department of His Majesty's Government or for commercial purposes and in particular with the sending or receipt of any messages between or at radio stations established as aforesaid on land and radio stations established on ships at sea.

4. The licensee shall comply with all such directions and observe all such rules as may be given or made by the Minister, from time to time, for the purpose of preventing interference with the working of any other radio station and for enabling
20 the messages exchanged by means of the licensed apparatus to be distinguished from those emanating from any other radio station.

5. The equivalent logarithmic decrement of the emitted waves shall not exceed that prescribed in the schedule.

6. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule hereto.

7. The licensee shall, if so required in writing by the Minister, cease to use the licensed apparatus for such period (not exceeding hours in any one day) as may be specified by the Minister.

30 8. Subject to the provisions of this licence, the licensee shall transmit and receive messages by means of the licensed apparatus to and from any other station or to and from any ship without regard to the particular system of radio installed at such other station or on such other ship, on equal terms without favour or preference whether as regards rates of charge, order of transmission or otherwise.

9. (i) The licensee shall, subject to the priority classification prescribed by the International Radiotelegraph Convention, transmit all messages in the order in which they are received, provided if and whenever any Department of the Government shall require the licensee, his servants or agents, to transmit, by means of the licensed apparatus, any message on His Majesty's Service, such message shall have

priority over all other messages, and the licensee, his servants and agents, shall, as soon as reasonably may be, transmit the same, and shall, until transmission thereof, suspend transmission of all other messages.

(ii) The licensee shall not be entitled to claim any compensation in respect of the suspension of the transmission of messages as aforesaid.

10. The licensee shall, so far as possible, receive from all ships and light stations all requests for assistance and all signals of distress and retransmit them with the least possible delay to the proper authorities by means of the licensed apparatus or any other means in his power.

10 11. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus, nor shall he divulge to any person other than the addressee or his accredited agent the contents of any message coming to his knowledge intended for receipt by means of the licensed apparatus. The licensee shall exhibit at the said station a copy of Form No. W. 40 issued by the Department of Marine and Fisheries.

12. A proces verbal of all signals transmitted, giving date, time and nature of such signals shall be kept by the licensee, also such further particulars as the
20 Minister shall from time to time reasonably require. The licensee shall preserve all proces verbaux for such period as is from time to time prescribed by the Minister, and such papers shall be open to the inspection of the Minister or his officers thereto authorized at the office of the licensee in between the hours of 10 a.m. and 5 p.m. on every day except Sunday or a public holiday.

13. The licensee shall make a monthly return to the Minister of all the messages handled by the licensed apparatus and in addition shall render to the Minister such accounts as the Minister shall direct in respect of all charges due or payable under the International Radiotelegraph Convention, in respect of ship-and-coast messages, and shall pay to the Minister at such times and in such manner as
30 the Minister shall direct all sums which shall be due from the licensee under such accounts.

14. The Minister or his authorized officers may from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations, and the working and user of such apparatus and telegraphic instruments.

15. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user
40 thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraph or telephone line.

16. The licensee shall install the apparatus at the station mentioned in the schedule, and the said station shall be placed in operation within months from the date of this licence, and shall be kept in operation continuously during the hours specified in the schedule, until this licence shall expire.

17. All operators at the said station shall be British subjects, and must be of such number and the holders of such Certificate of Proficiency as are specified in the schedule annexed thereto.

18. The licensee shall observe at the said station the provisions of the " Radiotelegraph Act " and those of the International Radiotelegraph Convention and the
10 detailed regulations from time to time made under each or either of them for carrying such provisions into effect.

19. In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents, of any of the terms or conditions herein contained and on the part of the licensee to be observed and performed then in any such case, the Minister may, by writing, revoke and determine these presents and the licences, powers and authorities hereinbefore granted and thereupon these presents and the said licences, powers and authorities and each and every of them shall absolutely cease, determine and become a void.

20. (a) Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that thereby licensed or otherwise) in such manner as he shall in his discretion think fit, neither shall anything herein contained prejudice or affect the right of the Minister from time to time, to enter into agreements of or to grant licences relative to the working and user of radio (whether of a like nature to those hereby licensed or otherwise), or the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall in his discretion think fit.

(b) The allotment of the wavelength or wavelengths specified in the schedule
30 annexed hereto does not confer a monopoly of the use of such wavelength.

21. The licensee shall at all times indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury arising from any act licensed or permitted by these presents.

22. Except with the consent in writing of the Minister, the licensee shall not assign or sublet this licence.

23. Any notice, request or consent (whether expressed to be in writing or not), to be given by the Minister, under these presents, may be under the hand of any authorized officer, for the time being, of the Department of Marine and Fisheries
40 and may be served by sending the same by registered post letter to the office of the licensee and any notice to be given by the licensee, under these

presents, may be served by sending the same by registered post letter addressed to the Deputy Minister of the Department of Marine and Fisheries, Ottawa.

Special provisions applicable to the licensed station.

SCHEDULE

International Radiotelegraph Convention of

- 1. Name of station
- 2. Location
- 3. Latitude and Longitude
- 10 4. Call signal
- 5. Normal range
- 6. System of radio
- 7. Type of aerial
- 8. Characteristics of transmitter
- 9. Characteristics of receiver
- 10. Decrement per complete period
- 11. Wavelength (normal underlined)
- 20 12. Source of power
- 13. Maximum power taken by transmitter
- 14. If A.C. number of cycles
- 15. Hours of service
- 16. Coast charge { per word
- { minimum per message
- 17. Operators to be carried on station:—
- 1st Class
- 2nd Class
- 30 3rd Class
- 18. Total Charge (Ship and Coast to apply on outward
- messages only) { per word
- { minimum per message
- 19. Stations with which the licensed station may communicate

Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES,
Ottawa.

40 Dated this day of, 19

PUBLIC COMMERCIAL LICENCE

W. 18.
Public
Commercial
Licence.

19....
Licence No.....
Call Signal.....

DEPARTMENT OF MARINE AND FISHERIES



DOMINION OF CANADA

LICENCE TO USE RADIO

10

Issued in accordance with the provisions of the Radiotelegraph Act, Chapter 43, Statutes 1913, and the Regulations of the Minister made thereunder.

The herein named.....resident of hereinafter called the Licensee, is hereby licensed to establish and operate a radio land station situated at..... for the term of one year commencing on the first day of April,....., and terminating on the thirty-first day of March,.....and to install and operate at such station the apparatus mentioned in the schedule hereto, 20 on payment of the sum of fifty dollars (\$50), being the licence fee for the privilege above named.

This licence is subject to the said Act and Regulations and to the following terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several meanings hereinafter assigned to them unless there be something, either in the subject or context, repugnant to such construction, that is to say:—

The term "Minister" means the Minister or the Deputy Minister of the Department of Marine and Fisheries for the time being, the term "radio" means and includes "radiotelegraph" and "radiotelephone," and the expression "Marine 30 Signalling" means signalling by means of any system of radio between two or more ships, between ships and any coast station, or between two Government coast stations.

2. The licensee shall not establish, install or work any apparatus for radio, except the apparatus hereinafter called "the licensed apparatus," specified in the said schedule hereto, nor shall wavelengths other than those mentioned therein be employed.

3. The working of the licensed station shall be limited to the exchange of messages with such coast and land stations as are specified in the schedule.

4. No tolls, fees or other consideration shall be received, levied or collected by the licensee until the same have been approved of by the Board of Railway Commissioners for Canada.

10 5. The licensee shall so work the licensed apparatus as not to interfere with the working of any radio station established in Canada by any Department of His Majesty's Government, or with marine signalling on the waters or territory of Canada or neighbouring waters or territory.

6. The licensee shall comply with all such directions and observe all such rules as may be given or made by the Minister, from time to time, for the purpose of preventing interference with the working of any other radio station and for enabling the messages exchanged by means of the licensed apparatus to be distinguished from those emanating from any other radio station.

20 7. The licensee shall, in so required in writing by the Minister, cease to use the licensed apparatus for such period (not exceeding.....hours in any one day) as may be specified by the Minister.

8. The equivalent logarithmic decrement of the emitted waves shall not exceed that prescribed in the schedule.

9. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule hereto.

30 10. (i) The licensee shall transmit all messages in the order in which they are received provided that if and whenever any Department of the Government shall require the licensee, his servants or agents to transmit, by means of the licensed apparatus, any message on His Majesty's Service, such messages shall have priority over all other messages, and the licensee, his servants and agents, shall, as soon as reasonably may be, transmit the same, and shall, until transmission thereof, suspend transmission of all other messages.

(ii) The licensee shall not be entitled to claim any compensation in respect of the suspension of the transmission of messages as aforesaid.

11. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus nor shall he divulge to any person other than the addressee or his accredited agents the contents of any message coming to his knowledge intended for receipt by means of the licensed apparatus. The licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

10 12. (i) A proces verbal of all signals transmitted, giving date, time and nature of such signals shall be kept by the licensee, also such further particulars as the Minister shall from time to time reasonably require. The licensee shall preserve all proces verbaux for such period as is from time to time prescribed by the Minister, and such papers shall be open to the inspection of the Minister or his officers thereto authorized at the office of the licensee in between the hours of 10 a.m. and 5 p.m. on every day except Sunday or a public holiday.

(ii) The licensee shall make a detailed return of the messages handled by the licensed station during each month on the forms provided for that purpose, and shall forward the same to the Minister at the end of each month.

20 13. The Minister or his authorized officers may, from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations, and the working and user of such apparatus and telegraphic instruments.

14. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraph or telephone line.

30 15. The licensee shall observe at the said station the provisions of the "Radio-telegraph Act" and the detailed regulations from time to time made thereunder for carrying such provisions into effect; also such provisions of any International Radio Convention to which Canada subscribes, as are applicable to the operation of the station.

16. The licensee shall install the apparatus at the station mentioned in the schedule and the said station shall be placed in operation within months from the date of this licence, and shall be kept in operation during the hours specified in the schedule until this licence shall expire.

17. All operators at the said station shall be British subjects, and must be of such number and the holders of such Certificate of Proficiency as are specified in the schedule annexed hereto.

18. In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents, of any of the terms or conditions herein contained and on the part of the licensee to be observed and performed then and in any such case, the Minister may, by writing, revoke and determine these presents and the licences, powers and authorities hereinbefore granted and thereupon these presents and the said licences, powers and authorities and each and every of them
10 shall absolutely cease, determine and become a void.

19. (a) Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that hereby licensed or otherwise) in such manner as he shall in his discretion think fit, neither shall anything herein contained prejudice or affect the right of the Minister from time to time, to enter into agreements of or to grant licences relative to the working and user of radio (whether of a like nature to those hereby licensed or otherwise), or the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall in his discretion
20 think fit.

(b) The allotment of the wavelength or wavelengths specified in the schedule annexed hereto does not confer a monopoly of the use of such wavelength.

20. The licensee shall at all times indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury arising from any act licensed or permitted by these presents.

21. Except with the consent in writing of the Minister, the licensee shall not assign or sublet this licence.

22. Any notice, request or consent (whether expressed to be in writing or not),
30 to be given by the Minister, under these presents, may be under the hand of any authorized officer, for the time being, of the Department of Marine and Fisheries and may be served by sending the same by registered post letter to the.....
.....office of the licensee and any notice to be given by the licensee, under these presents, may be served by sending the same by registered post letter addressed to the Deputy Minister of the Department of Marine and Fisheries, Ottawa.

Special provisions applicable to the licensed station.

SCHEDULE

- 1. Name of Station.....
- 2. Location
- 3. Call Signal
- 4. Normal Range.....
- 5. System of Radio.....
- 6. Type of Aerial.....
- 7. Characteristics of Transmitter.....
- 8. Characteristics of Receiver.....
- 10 9. Decrement per complete Oscillation.....
- 10. Wavelengths.. ..
- 11. Source of power.....
- 12. Maximum power taken by Transmitter.....
- 13. If A.C., number of Cycles.....
- 14. Hours of Service.....
-
- 15. Charges. { per word.....
- { minimum per message.....
- 20 16. Operators to be borne on Station:—
- 1st Class.....
- 2nd Class.....
- 3rd Class.....
- 17. Stations with which the licensed station communicate.....

.....
Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA.

Dated this.....day of.....192....

PRIVATE COMMERCIAL LICENCE

W. 43
*Private
Commercial
Licence
19....*

Licence No.....
Call Signal.....

DEPARTMENT OF MARINE AND FISHERIES



10

DOMINION OF CANADA

LICENCE TO USE RADIO

Issued in accordance with the provisions of the Radiotelegraph Act, Chapter 43, Statutes 1913, and the Regulations made thereunder

The herein named.....resident of
.....hereinafter called the Licensee, is hereby licensed to
establish and operate a Radio land station situated at.....
for the term of one year commencing on the first day of April, and terminating
on the thirty-first day of March, and to install and operate at such station the
apparatus mentioned in the schedule hereto, on payment of the sum of Ten Dollars
20 (\$10) being the licence fee for the privilege above named.

This licence is subject to the said Act and Regulations and to the following terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several meanings hereinafter assigned to them unless there be something, either in the subject or context, repugnant to such construction, that is to say:—

The term "Minister" means the Minister or the Deputy Minister of the Department of Marine and Fisheries for the time being, the term "Radio" means and includes "Radiotelegraph" and "Radiotelephone," and the expression "Marine Signalling" means signalling by means of any system of radio between two or more
30 ships, between ships and any coast station, or between two Government coast stations.

2. The licensee shall not establish, install or work any apparatus for radio, except the apparatus hereinafter called "the licensed apparatus," specified in the said schedule hereto, nor shall wavelengths other than those mentioned therein be employed.

3. The working of the licensed station shall be limited to the exchange of messages with such coast and land stations as are specified in the schedule.

4. The station, except in special cases provided for in sections (ii) and (iii) Radio Regulations No. 8, shall be worked solely for the transmission and reception of messages appertaining to the service or affairs of the licensee and no tolls, fees or other consideration shall be received, levied or collected by the licensee on account
10 of any business or messages handled by the licensed apparatus.

5. (i) The licensee shall so work the licensed apparatus as not to interfere with the working of any other Radio station in Canada, or with marine signalling on the waters or territory of Canada or neighbouring waters or territory.

(ii) With a view to preventing such interference as aforesaid, the licensee shall comply with all directions which shall be given to the licensee by the Minister and with all rules prescribed by the Minister for observance by his licensees:—

(a) With respect to all arrangements to be adopted for the purpose of syntony or enabling signals transmitted by means of the licensed apparatus to be distinguished from those emanating from any other radio station.
20

(b) With respect to any alteration of messages which the Minister may think necessary, and

(c) Generally with respect to avoiding interference between one radio station and another.

6. The licensee shall, if so required by the Minister, cease to use the licensed apparatus for such period or periods in each day as may be specified by the Minister.

7. The equivalent logarithmic decrement of the emitted waves shall not exceed that prescribed in the schedule.

8. (a) The licensed station must be provided with an accurate wavemeter of
30 approved type;

(b) The licensed station must be provided with a connection with the local wire telephone system.

9. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule hereto.

10. (i) The licensee shall transmit all messages in the order in which they are received, provided that if and whenever any Department of the Government shall require the licensee, his servants or agents, to transmit by means of the licensed apparatus, any message on His Majesty's Service, such messages shall have priority over all other messages, and the licensee, his servants and agents shall, as soon as reasonably may be, transmit the same, and shall, until transmission thereof, suspend transmission of all other messages.

(ii) The licensee shall not be entitled to claim any compensation in respect of the suspension of the transmission of messages as aforesaid.

10 11. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal), or make any use whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus nor shall he divulge to any person other than the addressee or his accredited agent the contents of any message coming to his knowledge intended for receipt by means of the licensed apparatus. The licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

20 12. (i) A proces verbal of all messages and signals transmitted, giving date, time and nature of such messages and signals shall be kept by the licensee, also such further particulars as the Minister shall from time to time reasonably require. The licensee shall preserve all proces verbaux for such period as is from time to time prescribed by the Minister, and such papers shall be open to the inspection of the Minister or his officers thereto authorized at the office of the licensee in between the hours of 10 a.m. and 5 p.m. on every day except Sunday or a public holiday.

(ii) The licensee shall make a detailed return of the messages handled by the licensed station during each month on the forms provided for that purpose, and shall forward the same to the Minister at the end of each month.

30 13. The Minister or his authorized officers may, from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations, and the working and user of such apparatus and telegraphic instruments.

14. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraphic line.

15. The licensee shall observe at the said station the provisions of the " Radiotelegraph Act " and the detailed regulations from time to time made thereunder for carrying such provisions into effect; also such provisions of any International Radio Convention to which Canada subscribes, as are applicable to the operation of the station.

16. The licensee shall install the apparatus at the station mentioned in the schedule and the said station shall be placed in operation within months from the date of this licence, and shall be kept in operation during the hours specified in the schedule until this licence shall expire.

10 17. All operators at the said station shall be British subjects, and must be of such number and holders of such Certificate of Proficiency as are specified in the schedule annexed hereto.

18. In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents, of any of the terms or conditions herein contained and on the part of the licensee to be observed and performed, then in any such case, the Minister may, by writing, revoke and determine these presents and the licences, powers and authorities hereinbefore granted and thereupon these presents and the said licences, powers and authorities and each and every of them shall absolutely cease, determine and become a void.

20 19. (a) Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that hereby licensed or otherwise) in such manner as he shall in his discretion think fit, neither shall anything herein contained prejudice or affect the right of the Minister from time to time, to enter into agreements of or to grant licences relative to the working and user of radio (whether of a like nature to those hereby licensed or otherwise), or the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall in his discretion think fit.

30 (b) The allotment of the wavelength or wavelengths specified in the schedule annexed hereto does not confer a monopoly of the use of such wavelength.

20. The licensee shall at all times indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury arising from any act licensed or permitted by these presents.

21. Except with the consent in writing of the Minister, the licensee shall not assign or sublet this licence.

22. Any notice, request or consent (whether expressed to be in writing or not), to be given by the Minister, under these presents, may be under the hand of any authorized officer, for the time being, of the Department of Marine and Fisheries and may be served by sending the same by registered post letter to the..... office of the licensee and any notice to be given by the licensee, under these presents, may be served by sending the same by registered post letter addressed to the Deputy Minister of the Department of Marine and Fisheries, Ottawa.

SCHEDULE

- 1. Name of Station.....
- 10 2. Location.....
- 3. Call Signal
- 4. Normal Range, Day
- Night.....
- 5. System of Radio.....
- 6. Type of Aerial.....
- 7. Characteristics of Transmitter.....
-
- 8. Characteristics of Receiver.....
-
- 20 9. Decrement per complete oscillation.....
-
- 10. Wavelengths (normal underlined)
- 11. Source of Power.....
- 12. Rating of station generator.....
- 13. Maximum power to be taken by transmitter, and voltage.....
-
- 14. Hours of Service.....
- 15. Operators to be borne on station:—
- 1st Class
- 30 2nd Class
- 3rd Class
- 16. Stations with which the licensed station must communicate.....
-

.....
Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA.

Dated this.....day of.....19....

EXPERIMENTAL LICENCE

W.. 20.

*Experimental**Licence*

19...

Licence No.....

Call Signal.....

DEPARTMENT OF MARINE AND FISHERIES



DOMINION OF CANADA

LICENCE TO USE RADIO

10 Issued in accordance with the provisions of the Radiotelegraph Act, Chapter 43, Statutes 1913, and the Regulations of the Minister made thereunder.

The herein named.....resident of
hereinafter called the Licensee, is hereby
 licensed to establish and operate an experimental radio station situated at.....
for the term of one year commencing on the
 first day of April.....and terminating on the thirty-first day of March,.....
 and to install and operate at such station the apparatus mentioned in the schedule
 hereto, on payment of the sum of Five Dollars (\$5) being the licence fee for the
 privilege above-named.

20 This licence is subject to the said Act and regulations and to the following
 terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several
 meanings hereinafter assigned to them unless there be something, either in the
 subject or context, repugnant to such construction, that is to say:—

The term "Minister" means the Minister or the Deputy Minister of the
 Department of Marine and Fisheries for the time being, the term "Radio" means
 and includes "Radiotelegraph" and "Radiotelephone," and the expression
 "Marine Signalling" means signalling by means of any system of radio between
 two or more ships, between ships and any coast station, or between two Govern-
 30 ment coast stations.

2. The licensee shall not establish, install or work any apparatus for radio, except the apparatus hereinafter called "the licensed apparatus," specified in the said schedule hereto, nor shall wavelengths other than those mentioned therein be employed.

3. The licensee shall work the licensed apparatus solely for the purpose of conducting experiments in radio, and for no other purpose whatever.

4. No tolls, fees or other consideration shall be received, levied or collected by the licensee on account of any service performed by the licensed station.

5. (i) The licensee shall so work the licensed apparatus as not to interfere 10 with the working of any radio station in Canada, or with marine signalling on the waters or territory of Canada or neighbouring waters or territory.

(ii) With a view to preventing such interference as aforesaid the licensee shall comply with all directions which shall be given to the licensee by the Minister and with all rules prescribed by the Minister for observance by his licensees:—

(a) With respect to all arrangements to be adopted for the purpose of syntony or enabling signals transmitted by means of the licensed apparatus to be distinguished from those emanating from any other radio station.

(b) Generally with respect of avoiding interference between one radio station and another.

20 6. The licensee shall, if so required by the Minister, cease to use the licensed apparatus for such period or periods in each day as may be specified by the Minister.

7. The equivalent logarithmic decrement of the emitted waves shall not exceed that prescribed in the schedule.

8. The licensed station must be provided with an accurate wavemeter of approved type.

9. The licensed station must be provided with a connection with the local wire telephone system.

10. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule 30 hereto.

11. The allotment of the wavelength or wavelengths specified in the schedule annexed hereto does not confer a monopoly of the use of such wavelength.

12. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraphic line.

13. When using a wavelength greater than 275 metres a procès-verbal of all signals transmitted, giving date, time and nature of such signals shall be kept by the licensee, also such further particulars as the Minister shall from time to time reasonably require. The licensee shall preserve all procès-verbaux for such period as is from time to time prescribed by the Minister, and such papers shall be open to the inspection of the Minister or his officers thereto authorized at the office of the licensee in between the hours of 10 a.m. and 5 p.m. on every day except Sunday or a public holiday.

14. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus nor shall he divulge to any person other than the addressee or his accredited agent the contents of any message coming to his knowledge intended for receipt by means of the licensed apparatus. The licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

15. The licensee shall observe at the said station the provisions of the "Radio-telegraph Act" and the detailed regulations from time to time made thereunder for carrying such provisions into effect; also such provisions of any International Radio Convention to which Canada subscribes, as are applicable to the operation of the station.

16. The licensed apparatus shall only be worked by a person or persons holding such certificates as are specified in the schedule annexed hereto.

17. The Minister or his authorized officers may, from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations and the working and user of such apparatus and telegraphic instruments.

18. (i) In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents, of any of the terms or conditions herein contained and on the part of the licensee to be observed and performed then and in any such case, the Minister may, by writing, revoke and determine these presents and the licences, powers and authorities hereinbefore granted and thereupon these presents and the said licences, powers and authorities and each and every of them shall absolutely cease, determine and become a void.

(ii) The Minister may at any time in his absolute discretion give notice in writing to determine these presents and the licence or permission hereby given at the end of one calendar month from the date of such notice, and at the expiration of that period the licence or permission hereby granted shall cease and determine accordingly, but without prejudice to any remedy of the Minister under any provision herein contained on the part of the licensee to be observed and performed.

19. Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that hereby licensed
10 or otherwise) in such manner as he shall in his discretion think fit, neither shall anything herein contained prejudice or affect the right of the Minister from time to time, to enter into agreements of or to grant licences relative to the working and user of radio (whether of a like nature to those hereby licensed or otherwise), on the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall in his discretion think fit.

20. The licensee shall at all times indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury arising from any act licensed or permitted by these
20 presents.

21. Except with the consent in writing of the Minister, the licensee shall not assign or sublet this licence.

22. Any notice, request or consent (whether expressed to be in writing or not) to be given by the Minister, under these presents, may be under the hand of any authorized officer, for the time being, of the Department of Marine and Fisheries and may be served by sending the same by registered post letter to the..... office of the licensee and any notice to be given by the licensee, under these presents, may be served by sending the same by registered post letter addressed to the Deputy Minister of Marine and Fisheries, Ottawa.

SCHEDULE

- 1. Name of Station.....
- 2. Location
- 3. Call Signal
- 4. Normal Range, Day
- Night
- 5. System of Radio.....
- 6. Type of Aerial.....
- 7. Characteristics of Transmitter.....
- 10
- 8. Characteristics of Receiver.....
-
- 9. Decrement per complete oscillation.....
-
- 10. Wavelengths (Normal underlined).....
- 11. Source of Power.....
- 12. Rating of motor generator.....
- 13. Maximum power to be taken by transmitter and voltage....
-
- 20 14. Hours during which station may transmit.....
-
- 15. The station must be worked by persons holding the following certificates:—
- When transmitting on.....metre wave.....
- When transmitting on.....metre wave.....
- 16. Stations with which the licensed station may communicate.
-
-
-

30

Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA.

Dated this day of 19....

AMATEUR EXPERIMENTAL LICENCE

W. 44.

*Amateur
Experimental
Licence
19....*

Licence No.....

Call Signal.....

DEPARTMENT OF MARINE AND FISHERIES



10

DOMINION OF CANADA

LICENCE TO USE RADIO

Issued in accordance with the provisions of the Radiotelegraph Act, Chapter 43, Statutes 1913, and the Regulations of the Minister made thereunder.

The herein named.....resident of
.....hereinafter called the Licensee, is hereby licensed to
establish and operate an Amateur Experimental radio station situated at.....
.....for the term of one year commencing on the
first day of April,.....and terminating on the thirty-first day of March,.....
and to install and operate at such station the apparatus mentioned in the schedule
20 hereto, on payment of the sum of Two Dollars and Fifty Cents (\$2.50), being the
licence fee for the privilege above named.

This licence is subject to the said Act and Regulations and to the following terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several meanings, hereinafter assigned to them unless there be something, either in the subject or context, repugnant to such construction, that is to say:—

The term "Minister" means the Minister or the Deputy Minister of the Department of Marine and Fisheries for the time being, the term "Radio" means and includes "Radiotelegraph" and "Radiotelephone," and the expression
30 "Marine Signalling" means signalling by means of any system of radio between two or more ships, between ships and any coast station, or between two Government coast stations.

2. The licensee shall not establish, install or work any apparatus for radio except the apparatus hereinafter called "the licensed apparatus," specified in the said schedule hereto, nor shall wavelengths other than those mentioned therein be employed.

3. No tolls, fees or other consideration shall be received, levied or collected by the licensee on account of any service performed by the licensed station.

4. (i) The licensee shall so work the licensed apparatus as not to interfere with the working of any radio station in Canada or with marine signalling on the waters or territory of Canada or neighbouring waters or territory.

10 (ii) With a view to preventing such interference as aforesaid, the licensee shall comply with all directions which shall be given to the licensee by the Minister and with all rules prescribed by the Minister for observance by his licensees:—

(a) With respect to all arrangements to be adopted for the purpose of syntony or enabling signals transmitted by means of the licensed apparatus to be distinguished from those emanating from any other radio station.

(b) Generally with respect of avoiding interference between one radio station and another.

5. (a) The licensee shall, if so required by the Minister, cease to use the licensed transmitting apparatus for such period or periods in each day as may be 20 specified by the Minister.

(b) The licensed transmitting apparatus shall not be used during the periods when official time signals are being broadcasted.

6. The waves emitted must be as little damped as possible. In the case of spark stations the logarithmic decrement of a complete oscillation shall not exceed two-tenths and in the case of C.W. and radiotelephone stations the equivalent decrement shall not exceed that specified in the licence.

7. When the licensed station is in the vicinity of a Government or Commercial radio station it must be provided with a connection with the local wire telephone system.

30 8. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule hereto.

9. The allotment of the wavelength or wavelengths specified in the schedule annexed hereto does not confer a monopoly of the use of such wavelengths.

10. Broadcasting of any description by the licensed station is not allowed.

11. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraphic line.

12. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus nor shall he divulge to any person other than the addressee or his accredited agent the contents of any message coming
10 to his knowledge intended for receipt by means of the licensed apparatus. The licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

13. The licensee shall observe at the said station the provisions of the "Radio-telegraph Act" and the detailed regulations from time to time made thereunder for carrying such provisions into effect; also such provisions of any International Radio Convention to which Canada subscribes, as are applicable to the operation of the station.

14. The licensed apparatus shall only be worked by a person, or persons, holding an Amateur Experimental Certificate of Proficiency in Radiotelegraphy as provided
20 for in Regulation No. 97 of the Minister's Regulations.

15. The Minister or his authorized officers may, from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio or all other telegraphic instruments and apparatus fixed and being in such stations, and the working and user of such apparatus and telegraphic instruments.

16. (i) In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents, or any of the terms or conditions herein contained and on the part of the licensee to be observed and performed then and in
30 any such case, the Minister may, by writing, revoke and determine these presents and the licences, powers and authorities hereinbefore granted and thereupon these presents and the said licences, powers and authorities and each and every of them shall absolutely cease, determine and become a void.

(ii) The Minister may at any time in his absolute discretion give notice in writing to determine these presents and the licence or permission hereby given at the end of one calendar month from the date of such notice, and at the expiration of that period the licence or permission hereby granted shall cease and determine accordingly, but without prejudice to any remedy of the Minister under any provision herein contained on the part of the licensee to be observed and performed.

SHIP LICENCE

W. 19.
Ship Licence.
19....

Licence No.....
Call Signal.....

DEPARTMENT OF MARINE AND FISHERIES



DOMINION OF CANADA

LICENCE TO USE RADIO

10 Issued in accordance with the provisions of the Radiotelegraph Act, Chapter 43,
Statutes 1913, and the Regulations of the Minister made thereunder.

.....Class Ship Station.

The herein named

.....
.....

resident of.....hereinafter

called the Licensee, is hereby licensed to establish and operate a radio station on
board the vessel.....for the term of one year com-

20 mencing on the first day of April, nineteen hundred and.....

and terminating on the thirty-first day of March, nineteen hundred and.....

.....and to install and operate at such station the apparatus
mentioned in the schedule hereto on payment of the sum of ten dollars (\$10),

being the licence fee for the privilege above named.

This licence is subject to the said Act and Regulations and to the following
terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several
meanings hereinafter assigned to them unless there be something, either in the

subject or context, repugnant, to such construction, that is to say:—

30 The term “Minister” means the Minister or the Deputy Minister of the
Department of Marine and Fisheries for the time being, the term “Radio” means

and includes “Radiotelegraph” and “Radiotelephone,” and “International Radio-
telegraph Convention” means the International Radiotelegraph Convention and

Regulations annexed thereto specified in the schedule.

2. (i) The licensee shall not establish, install or operate any apparatus for radio, except apparatus hereinafter called the "licensed apparatus," specified in the said schedule hereto, nor use wavelengths other than those specified therein.

(ii) The ship station shall be of such class mentioned in Regulations Nos. 34, 35 or 36 of Minister's Regulations, as is specified in the said Schedule annexed hereto.

3. No tolls, fees or other consideration shall be received, levied or collected by the licensee until the same have been approved of by the Board of Railway Commissioners for Canada, and in no case shall they exceed the maximum fixed by the
10 International Radiotelegraph Convention.

4. The licensee shall comply with all such directions and observe all such rules as may be given or made by the Minister, from time to time, for the purpose of preventing interference with the working of any other radio station and for enabling the messages exchanged by means of the licensed apparatus to be distinguished from those emanating from any other radio station.

5. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule hereto.

6. The equivalent logarithmic decrement of the emitted waves shall not exceed
20 that prescribed in the schedule, except in cases of distress.

7. The licensee shall, so far as possible, receive from all ships and light stations all requests for assistance and all signals of distress and re-transmit them with the least possible delay to the proper authorities by means of the licensed apparatus or any other means in his power.

8. Subject to the provisions of this license, and in accordance with the regulations issued from time to time by the Minister, the licensee shall transmit and receive messages by means of the licensed apparatus to and from any coast station or to and from any other ship station without regard to the particular system of radio installed at such coast station or on such other ship, on equal terms with
30 out favour or preference, whether as regards rates of charge, order of transmission or otherwise, provided always that signals of distress and messages in connection therewith shall receive priority over all other messages and that the order of transmission of such other messages shall be governed by the International Telegraph Regulations.

9. (i) The licensee shall, subject to the priority classification prescribed by the International Radiotelegraph Convention, transmit all messages in the order

in which they are received, provided if and whenever any Department of the Government shall require the licensee, his servants or agents, to transmit, by means of the licensed apparatus, any message on His Majesty's Service, such messages shall have priority over all other messages, and the licensee, his servants and agents, shall, as soon as reasonably may be, transmit the same, and shall, until transmission thereof, suspend transmission of all other messages.

(ii) The licensee shall not be entitled to claim any compensation in respect of the suspension of the transmission of messages as aforesaid.

10 10. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any messages coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus, nor shall he divulge to any person other than the addressee or his accredited agents the contents of any message coming to his knowledge intended for receipt by means of the licensed apparatus, and the licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

20 11. A proces verbal of all signals transmitted, giving date, time and nature of such signals shall be kept by the licensee also such further particulars as the Minister shall from time to time reasonably require. The licensee shall preserve all proces verbaux for such period as is from time to time prescribed by the Minister, and such papers shall be open to the inspection of the Minister or his officers thereto authorized at the office of the licensee in.....between the hours of 10 a.m. and 5 p.m. on every day except Sunday or a public holiday.

30 12. (i) The licensee shall make a monthly return to the Minister of all the messages handled by the licensed apparatus and in addition shall render to the Minister such accounts as the Minister shall direct in respect of all charges due or payable under the International Radiotelegraph Convention, in respect of ship-and-coast messages and shall pay to the Minister at such times and in such manner as the Minister shall direct all sums which shall be due from the licensee under such accounts.

(ii) The licensee shall if required pay to the Minister and maintain throughout the period during which this licence is in force a deposit of \$50 as security for the payment of coast station and landline delivery charges in respect of radiotelegrams originating at the licensed station and transmitted via any coast station, domestic or foreign, which deposit may be appropriated by direction of the Minister for the payment of any such charges which are not otherwise paid in due course and shall be returned at the expiry of nine months from the termination of the licence subject to such deductions as shall have been made for payment of any of the charges aforesaid.

13. The Minister or his duly authorized officers may, from time to time and at all reasonable times, enter upon the herein licensed ship station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations, and the working and user of such apparatus and telegraphic instruments.

14. The licensee shall observe at the said station the provisions of the Radiotelegraph Act and International Radiotelegraph Convention and detailed regulations from time to time made under each or either of them for carrying such
10 provisions into effect.

15. (i) The licensed apparatus at the said ship station shall be worked only by a person or persons holding a certificate or certificates issued by the Minister, the British Postmaster General or the corresponding authorities of any self-governing British Colony or the Government of India, and the licensee shall provide for the working of the station such operators as are required by the provisions of Regulations Nos. 80, 81, 82 or 83 of the Minister's Regulations according to the classification of the station as specified in the schedule annexed hereto.

(ii) A certificate shall not be recognized as authorizing the holder to work a ship station under the terms of this licence unless it bears a statement that it is
20 issued in accordance with the International Radiotelegraph Convention, specified in the schedule hereto.

16. The licensee shall carry on the ship on which the ship station is established under this licence a properly certified copy of such licence, and shall produce such copy for inspection if required so to do by the duly authorized officials of the countries where the ship calls, and the following documents:—

Radiotelegraph Act and Regulations issued thereunder;
International Radiotelegraph Convention and Regulations;
Postmaster General's Handbook for Wireless Telegraph Operators;
Official list of Radiotelegraph Stations;
30 Official list of Call Signals;
C.P.R., G.N.W. or Western Union Tariff Book.

Adequate supply of telegraph forms; and also such other documents as may be prescribed by the Minister, for the purpose of enabling the licensee to communicate with coast and ship stations in accordance with the rules and regulations of the International Radiotelegraph Convention.

17. In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents of any of the terms or conditions herein contained and on the part of the licensee to be observed and performed, then and in any such case, the Minister may, by writing, revoke and determine these presents and the licences, powers and authorities hereinbefore granted, and thereupon these presents, and the said licences, powers and authorities and each and every of them shall absolutely cease, determine and become a void.

18. Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that hereby licensed or otherwise) in such manner as he shall in his discretion think fit, neither shall anything herein contained prejudice or affect the right of the Minister, from time to time, to enter into agreements for or to grant licences relative to the working and user of radio (whether of a like nature to those hereby licensed or otherwise), or the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall, in his discretion, think fit.

19. The licensee shall at all times indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury arising from any act licensed or permitted by these presents.

20. Except with the consent in writing of the Minister, the licensee shall not assign or sublet this licence.

21. Any notice, request or consent (whether expressed to be in writing or not), to be given by the Minister under these presents may be under the hand of any authorized officer, for the time being, of the Department of Marine and Fisheries and may be served by sending the same by registered letter to the licensee, and any notice to be given by the licensee, under these presents, may be served by sending the same by registered letter addressed to the Deputy Minister of Marine and Fisheries, Ottawa, Can.

SCHEDULE

General—

- (1) International Radiotelegraph Convention of.....
- (2) Name of ship.....
- (3) Registered in
- (4) Owner
- (5) Classification
- (6) Apparatus operated by.....
- (7) Call Signal
- 10 (8) Nature of Service.....
- (9) Watches to be maintained.....
- (10) Operators to be borne on station:—
 - 1st Class
 - 2nd Class
 - 3rd Class
- (11) Ship Charge:—
 - Per word
 - Minimum per message.....

Main Apparatus—

- 20 (12) Normal Range
- (13) System of Radio.....
- (14) Type of Aerial.....
- (15) Transmitting Wavelength (Normal underlined).....
- (16) Source of Power.....
- (17) Maximum taken by Transmitter.....
- (18) Decrement per complete Oscillation.....
- (19) Characteristics of Transmitter.....
- (20) Characteristics of Receiver.....

Emergency Apparatus—

- 30 (21) Normal Range
- (22) Wavelength
- (23) Source of Power and capacity of same.....
- (24) Type of Transmitter.....

.....
Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA.

Dated this day of, 19....

TRAINING SCHOOL LICENCE

W. 66.
Training
School
Licence.
19....

Licence No.
Call Signal.

DEPARTMENT OF MARINE AND FISHERIES



DOMINION OF CANADA

LICENCE TO USE RADIO

ISSUED in accordance with the provisions of the Radiotelegraph Act, Chapter 43, Statutes 1913, and the Regulations made thereunder.

The herein named
.
resident of hereinafter called the licensee,
is hereby licensed to establish and operate a radio training school situated at . . .
.
for the term of one year commencing on the first day of April, 19. . . , and ter-
minating at on the thirty-first day of March, 19. . . and to install and operate at
such station the apparatus mentioned in the schedule hereto, on payment of the
sum of five dollars (\$5) being the licence fee for the privilege above named.

This licence is subject to the said Act and Regulations and to the following terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several meanings hereinafter assigned to them unless there is something either in the subject or context, repugnant to such construction, that is to say:—

The term "Minister" means the Minister or the Deputy Minister of the Department of Marine and Fisheries for the time being, the term "Radio" means
and includes "Radiotelegraph" and "Radiotelephone," and the expression "Marine
Signalling" means signalling by means of any system of radio between two or
more ships, between ships and any coast station, or between two Government coast
stations.

2. (i) The licensee shall not establish, install or operate any apparatus for radio, except the apparatus hereinafter called the "licensed apparatus" specified in the said schedule hereto, nor use wavelengths other than those specified therein.

(ii) The licensee shall work the licensed apparatus solely for the purpose of instruction in radio and for no other purpose whatever.

3. The licensee shall so work the licensed apparatus as not to interfere with the working of any radio station in Canada, or with marine signalling on the waters or territory of Canada or neighbouring waters or territory.

4. The licensee shall comply with all such directions and observe all such rules
10 as may be given or made by the Minister, from time to time, for the purpose of preventing interference with the working of any other radio station and for enabling the messages exchanged by means of the licensed apparatus to be distinguished from those emanating from any other radio station.

5. The equivalent logarithmic decrement of the emitted waves shall not exceed that prescribed in the schedule.

6. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraph or telephone line.

20 7. The Minister or his officers may, from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations, and the working and user of such apparatus and telegraphic instruments respectively.

8. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule hereto.

9. The licensee shall observe at the said station the provisions of the "Radio-
30 telegraph Act" and the detailed regulations from time to time made thereunder for carrying such provisions into effect; also provisions of any International Radio Convention to which Canada subscribes, as are applicable to the operation of the station.

10. The licensee shall not divulge to any person (other than the properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any message coming to the knowledge of the licensee and not

intended for receipt by means of the licensed apparatus. No person shall operate or work the receiving apparatus at the licensed school who has not subscribed to, and filed with the Minister of Marine and Fisheries a Declaration of Secrecy as prescribed in section 6 of the Radiotelegraph Act and Radiotelegraph Regulation No. 72. The licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

11. At least one of the instructors at the licensed school shall be the holder of a First Class Canadian Certificate of Proficiency in Radio. Other instructors, teaching in one or two subjects only, must have passed a successful examination in the
 10 subject, or subjects, with which they propose to deal: the papers for this examination and the percentage of marks to be obtained will be as prescribed for the examination for a First Class Canadian Certificate of Proficiency in Radio.

12. The licensee shall at all time indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury arising from any act licensed or permitted by these presents.

13. Except with the consent in writing of the Minister, the licensee shall not assign or sublet this licence.

14. (i) The Minister may at any time in his absolute discretion give notice in
 20 writing to determine these presents and the licence or permission hereby given at the end of one calendar month from the date of such notice, and at the expiration of that period the licence or permission hereby granted shall cease and determine accordingly, but without prejudice to any remedy of the Minister under any provision herein contained on the part of the licensee to be observed and performed.

(ii) The licensee shall, if so required by the Minister, cease to use the licensed apparatus for such period as may be specified by the Minister.

15. In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents of any of the terms or conditions herein contained and on the part of the licensee to be observed and performed, then and in
 30 any such case, the Minister may, by writing, revoke and determine these presents and the licensees, powers and authorities hereinbefore granted, and thereupon these presents, and the said licences, powers and authorities and each and every one of them shall absolutely cease, determine and become a void.

16. Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that hereby licensed or otherwise) in such manner as he shall in his discretion think fit, neither shall any-

thing herein contained prejudice or affect the right of the Minister, from time to time, to enter into agreements for or to grant licences relative to the working and user of radio (whether of a like nature to those hereby licensed or otherwise), or the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall, in his discretion, think fit.

17. Any notice, request or consent (whether expressed to be in writing or not), to be given by the Minister under these presents may be under the hand of any authorized officer, for the time being of the Department of Marine and Fisheries, and may be served by sending the same by registered post letter to the licensee, and any notice to be given by the licensee, under these presents, may be served by sending the same by registered post letter, addressed to the Deputy Minister of Marine and Fisheries, Ottawa.

SCHEDULE

- (1) Name of Station.....
- (2) Location.....
- (3) Call signal.....
- (4) Type of aerial.....
- (5) Transmitting wavelength.....
- 20 (6) Decrement per complete oscillation.....
- (7) Characteristics of transmitter.....
- (8) Characteristics of receiver.....
- (9) Source of power.....
- (10) Maximum power to be taken by transmitter.....
- (11) If A.C., number of cycles.....
- (12) Hours during which the station must not transmit.....
- (13) Stations with which the licensed station may communicate.....

30
Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA.

Dated this.....day of....., 19....

PRIVATE COMMERCIAL BROADCASTING LICENCE

W. 69.

Private
Commercial Broadcasting
Licence

19....

Licence No.....

Call Signal.....

DEPARTMENT OF MARINE AND FISHERIES



10

DOMINION OF CANADA

LICENCE TO USE RADIO

ISSUED in accordance with the provisions of the Radiotelegraph Act, Chapter 43, Statutes 1913, and the Regulations made thereunder.

The herein named.....resident of
hereinafter called the Licensee, is hereby licensed to
 establish and operate a Radio land station situated at.....
for the term of one year commencing on the first day of April,
 and terminating on the thirty-first day of March,and to install and
 operate at such station the apparatus mentioned in the schedule hereto, on payment
 20 of the sum of Fifty Dollars (\$50), being the licence fee for the privilege above
 named.

This licence is subject to the said Act and Regulations and to the following terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several meanings hereinafter assigned to them unless there be something, either in the subject or context, repugnant to such construction, that is to say:—

The term "Minister" means the Minister or the Deputy Minister of the Department of Marine and Fisheries for the time being, the term "Radio" means and includes "Radiotelegraph" and "Radiotelephone," and the expression "Marine Signalling" means signalling by means of any system of radio between two or more ships, between ships and any coast station, or between two Government coast stations.

2. The licensee shall not establish, install or work any apparatus for radio, except the apparatus hereinafter called "the licensed apparatus," specified in the said schedule hereto, nor shall wavelengths other than those mentioned therein be employed.

3. The working of the licensed station shall be limited to broadcasting.

4. The licensee shall not, without the consent of the Minister, in writing, receive or collect any tolls, fees or other consideration on account of any service performed by the licensed station.

5. (i) The licensee shall so work the licensed apparatus as not to interfere
10 with the working of any other Radio station in Canada, or with marine signalling on the waters or territory of Canada or neighbouring waters or territory.

(ii) With a view to preventing such interference as aforesaid, the licensee shall comply with all directions which shall be given to the licensee by the Minister and with all rules prescribed by the Minister for observance by his licensees:—

(a) With respect to all arrangements to be adopted for the purpose of sympathy or enabling signals transmitted by means of the licensed apparatus to be distinguished from those emanating from any other radio station.

(b) With respect to any alteration of programs which the Minister may think
20 necessary, and

(c) Generally with respect to avoiding interference between one radio station and another.

6. The licensee shall, if so required by the Minister, cease to use the licensed apparatus for such period or periods in each day as may be specified by the Minister.

7. The equivalent logarithmic decrement of the emitted waves shall not exceed that prescribed in the schedule.

8. (a) The licensed station must be provided with an accurate wavemeter of approved type;

30 (b) The licensed station must be provided with a connection with the local wire telephone system.

9. The licensed apparatus shall not, without the consent of the Minister, be altered or modified in respect of any of the particulars mentioned in the schedule hereto.

10. (i) If and whenever any Department of the Government shall require the licensee, his servants or agents to transmit by means of the licensed apparatus, any message on His Majesty's Service, such messages shall have priority over all other transmissions and the licensee, his servants and agents, shall, as soon as reasonably may be, transmit the same, and shall, until transmission thereof suspend all other transmission.

(ii) The licensee shall not be entitled to claim any compensation in respect of the suspension of the transmission of messages as aforesaid.

11. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal), or make any use
10 whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus nor shall he divulge to any person other than the addressee or his accredited agent the contents of any message coming to his knowledge intended for receipt by means of the licensed apparatus. The licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

12. A procès verbal of all signals transmitted, giving date, time and nature of such signals shall be kept by the licensee, also such further particulars as the Minister shall from time to time reasonably require. The licensee shall preserve
20 all procès verbaux for such period as is from time to time prescribed by the Minister, and such papers shall be open to the inspection of the Minister or his officers thereto authorized at the office of the licensee in between the hours of 10 a.m. and 5 p.m. on every day except Sunday or a public holiday.

13. The Minister or his authorized officers may, from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations, and the working and user of such apparatus and telegraphic instruments.

30 14. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraphic line.

15. The licensee shall observe at the said station the provisions of the "Radio-telegraph Act" and the detailed regulations from time to time made thereunder for carrying such provisions into effect; also such provisions of any International Radio Convention to which Canada subscribes, as are applicable to the operation of the station.

16. The licensee shall install the apparatus at the station mentioned in the schedule and the said station shall be placed in operation within..... months from the date of this licence, and shall be kept in operation during the hours specified in the schedule until this license shall expire.

17. All operators at the said station shall be British subjects, and must be of such number and the holders of such Certificate of Proficiency as are specified in the schedule annexed hereto.

18. In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents, of any of the terms or conditions herein
 10 contained and on the part of the licensee to be observed and performed, then in any such case, the Minister may, by writing, revoke and determine these presents and the licences, powers and authorities hereinbefore granted and thereupon these presents and the said licences, powers and authorities and each and every of them shall absolutely cease, determine and become a void.

19. (a) Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that hereby licensed or otherwise) in such manner as he shall in his discretion think fit, neither shall anything herein contained prejudice or affect the right of the Minister from
 20 time to time, to enter into agreements of or to grant licences relative to the working and user of radio (whether of a like nature to those hereby licensed or otherwise), or the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall in his discretion think fit.

(b) The allotment of the wavelength or wavelengths specified in the schedule annexed hereto does not confer a monopoly of the use of such wavelength.

20. The licensee shall at all times indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury arising from any act licensed or permitted by
 30 these presents.

21. Except with the consent in writing of the Minister, the licensee shall not assign or sublet this licence.

22. Any notice, request or consent (whether expressed to be in writing or not), to be given by the Minister, under these presents, may be under the hand of any authorized officer, for the time being, of the Department of Marine and Fisheries and may be served by sending the same by registered post letter to the.....
office of the licensee and any notice to be given by the licensee,

under these presents, may be served by sending the same by registered post letter addressed to the Deputy Minister of the Department of Marine and Fisheries, Ottawa.

SCHEDULE

- 1. Name of Station.....
- 2. Location
- 3. Call Signal
- 4. Normal Range, Day.....
Night.....
- 10 5. System of Radio.....
- 6. Type of Aerial.....
- 7. Characteristics of Transmitter.....
.....
- 8. Characteristics of Receiver.....
.....
- 9. Decrement per complete oscillation.....
.....
- 10. Wavelengths (normal underlined).....
- 11. Source of power.....
- 20 12. Rating of motor generator.....
- 13. Maximum power to be taken by transmitter, and voltage.....
.....
- 14. Hours of service.....
.....
- 15. Operators to be borne on station:—
1st Class
- 2nd Class
- 3rd Class

30

Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA.

Dated this.....day of....., 19....

AMATEUR BROADCASTING LICENCE

W. 70.
*Amateur
Broadcasting
Licence
19....*

Licence No.....
Call Signal.....

DEPARTMENT OF MARINE AND FISHERIES



10

DOMINION OF CANADA

LICENCE TO USE RADIO

Issued in accordance with the provisions of the Radiotelegraph Act, Chapter 43, Statutes 1913, and the Regulations made thereunder.

The herein named.....
.....
resident of.....hereinafter called
the Licensee, is hereby licensed to establish and operate a Radio land station at
.....
for the term of one year commencing on the first day of April,.....and
20 terminating on the thirty-first day of March,.....and to install and operate
at such station the apparatus mentioned in the schedule hereto, on payment of
the sum of Ten Dollars (\$10), being the licence fee for the privilege above named.

This licence is subject to the said Act and Regulations and to the following terms, conditions and restrictions:—

1. In this licence, the following words and expressions shall have the several meanings hereinafter assigned to them unless there be something, either in the subject or context, repugnant to such construction, that is to say:—

30 The term "Minister" means the Minister or the Deputy Minister of the Department of Marine and Fisheries for the time being, the term "Radio" means and includes "Radiotelegraph" and "Radiotelephone," and the expression "Marine Signalling" means signalling by means of any system of radio between two or more ships, between ships and any coast station, or between two Government coast stations.

2. The licensee shall not establish, install or work any apparatus for radio, except the apparatus hereinafter called "the licensed apparatus" specified in the said schedule hereto, nor shall wavelengths other than those mentioned therein be employed.
3. The working of the licensed station shall be limited to broadcasting.
4. No tolls, fees or other consideration shall be received, levied or collected by the licensee on account of any service performed by the licensed station.
5. (i) The licensee shall so work the licensed apparatus as not to interfere with the working of any other radio station in Canada, or with Marine signalling
10 on the waters or territory of Canada or neighbouring waters or territory.
- (ii) With a view to preventing such interference as aforesaid the licensee shall comply with all directions which shall be given to the licensee by the Minister and with all rules prescribed by the Minister for observance by his licensees:—
- (a) With respect to all arrangements to be adopted for the purpose of syntony or enabling signals transmitted by means of the licensed apparatus to be distinguished from those emanating from any other radio station.
- (b) With respect to any alteration of programs which the Minister may think necessary and
- (c) Generally with respect to avoiding interference between one radio station
20 and another.
6. The licensee shall, if so required by the Minister, cease to use the licensed apparatus for such period or periods in each day as may be specified by the Minister.
7. The equivalent logarithmic decrement of the emitted waves shall not exceed that prescribed in the schedule.
8. (a) The licensed station must be provided with an accurate wavemeter of approved type;
- (b) The licensed station must be provided with a connection with the local wire telephone system.
9. The licensed apparatus shall not, without the consent of the Minister, be
30 altered or modified in respect of any of the particulars mentioned in the schedule hereto.
10. The licensee shall not divulge to any person (other than properly authorized officials of the Government or a competent legal tribunal) or make any use whatever of any message coming to the knowledge of the licensee and not intended for receipt by means of the licensed apparatus nor shall he divulge to any person other than the addressee or his accredited agent the contents of any message coming to his

knowledge intended for receipt by means of the licensed apparatus. The licensee shall exhibit at the said station a copy of Form No. W. 40, issued by the Department of Marine and Fisheries.

11. A procès verbal of all signals transmitted, giving date, time and nature of such signals shall be kept by the licensee, also such further particulars as the Minister shall from time to time reasonably require. The licensee shall preserve all procès verbaux for such period as is from time to time prescribed by the Minister, and such papers shall be open to the inspection of the Ministers or his officers thereto authorized at the office of the licensee in
 10 between the hours of 10 a.m. and 5 p.m. on every day except Sunday or a public holiday.

12. The Minister or his authorized officers may, from time to time and at all reasonable times, enter upon the herein licensed station, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, for the purpose of sending and receiving messages by radio and all other telegraphic instruments and apparatus fixed or being in such stations, and the working and user of such apparatus and telegraphic instruments.

13. All apparatus used or intended to be used by the licensee shall be so erected, fixed, placed and used as not, either directly or by reason of the working or user
 20 thereof, to interfere with the efficient or convenient maintenance, working or user of any telegraphic line.

14. The licensee shall observe at the said station the provisions of the "Radio-telegraph Act" and the detailed regulations from time to time made thereunder for carrying such provisions into effect; also such provisions of any International Radio Convention to which Canada subscribes, as are applicable to the operation of the station.

15. The licensee shall install the apparatus at the station mentioned in the schedule and the said station shall be placed in operation within
 30 months from the date of this licence and shall be kept in operation during the hours specified in the schedule until this licence shall expire.

16. All operators at the said station shall be British subjects, and must be of such number and the holders of such Certificate of Proficiency as are specified in the schedule annexed hereto.

17. In case of any breach, non-observance or non-performance by or on the part of the licensee, his servants or agents, of any of the terms or conditions herein contained and on the part of the licensee to be observed and performed then and in any such case the Minister may by writing, revoke and determine these presents and

the licences, powers and authorities hereinbefore granted and thereupon these presents and the said licences, powers and authorities, and each and every of them shall absolutely cease, determine and become a void.

18. (a) Nothing in these presents contained shall prejudice or affect the right of the Minister, from time to time, to establish, extend, maintain and work any system or systems of radio communication (whether of a like nature to that hereby licensed or otherwise) in such manner as he shall in his discretion think fit, neither shall anything herein contained prejudice or affect the right of the Minister from time to time, to enter into agreements of or to grant licences relative to the working
10 and user of radio (whether of a like nature to those hereby licensed or otherwise), or the transmission of messages in any part of Canada, by means of radio, with or to any person or persons whomsoever upon such terms as he shall in his discretion think fit.

(b) The allotment of the wavelength or wavelengths specified in the schedule annexed hereto does not confer a monopoly of the use of such wavelength.

19. The licensee shall at all times indemnify the Minister against all actions, claims and demands which may be brought or made by any corporation, company or person in respect of any injury, arising from any act licensed or permitted by these presents.

20. The licensee may, subject to the approval of the Minister, authorize the use of a station belonging to one of its members to broadcast on its behalf. Such station whilst broadcasting becomes the licensed station authorized hereunder and the licensee will be responsible for its proper operation in accordance with the provisions of this licence.
20

21. (i) The Minister may at any time in his absolute discretion give notice in writing to determine these presents and the licence or permission hereby given at the end of one calendar month from the date of such notice and at the expiration of that period the licence or permission hereby granted shall cease and determine accordingly, but without prejudice to any remedy of the Minister under any pro-
30 vision herein contained on the part of the licensee to be observed and performed.

(ii) The licensee shall, if so required by the Minister, cease to use the licensed apparatus for such period (not exceeding eight hours in any one day) as may be specified by the Minister.

22. Any notice, request or consent (whether expressed to be in writing or not), to be given by the Minister, under these presents, may be under the hand of any authorized officer, for the time being, of the Department of Marine and Fisheries, and may be served by sending the same by registered post letter to the.....

office of the licensee and any notice to be given by the licensee, under these presents, may be served by sending the same by registered post letter addressed to the Deputy Minister of the Department of Marine and Fisheries, Ottawa.

SCHEDULE

- 1. Name of Station.....
- 2. Location.....
- 3. Call Signal.....
- 4. Normal Range, Day.....
Night.....
- 10 5. System of Radio.....
- 6. Type of Aerial.....
- 7. Characteristics of Transmitter.....
-
- 8. Characteristics of Receiver.....
-
- 9. Decrement per complete oscillation.....
-
- 10. Wavelengths (normal underlined).....
- 11. Source of power.....
- 20 12. Rating of motor generator.....
- 13. Maximum power to be taken by transmitter, and voltage.....
-
- 14. Hours of service.....
-
- 15. Operators to be borne on station:—
 - 1st Class.....
 - 2nd Class.....
 - 3rd Class.....

30

Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA.

Dated this.....day of.....19....

No. 3

*Official Translation***International Radiotelegraph Convention**

concluded between the Governments of:

Union of South Africa, French Equatorial Africa and other colonies, French West Africa, Portuguese West Africa, Portuguese East Africa and the Portuguese possessions in Asia, Germany, Argentine Republic, Commonwealth of Australia, Austria, Belgium, Bolivia, Brazil, Bulgaria, Canada, Chile, China, Republic of Colombia, Spanish Colony of the Gulf of Guinea, Belgian Congo, Costa Rica, Cuba, 10 Curaçao, Cyrenaica, Denmark, Dominican Republic, Egypt, Republic of El Salvador, Erythrea, Spain, Estonia, United States of America, Finland, France, Great Britain, Greece, Guatemala, Republic of Haiti, Republic of Honduras, Hungary, British India, Dutch East Indies, French Indo-China, Irish Free State, Italy, Japan, Chosen, Taiwan, Japanese Sakhalin, the Leased Territory of Kwantung and the South Sea Islands under Japanese Mandate, Republic of Liberia, Madagascar, Morocco (with the exception of the Spanish Zone), Mexico, Monaco, Nicaragua, Norway, New Zealand, Republic of Panama, Paraguay, the Netherlands, Peru, Persia, Poland, Portugal, Roumania, Kingdom of the Serbs, Croats, and Slovenes, Siam, Italian Somaliland, Sweden, Switzerland, Surinam, Syro-Libanese 20 Territories, Republic of San Marino, Czechoslovakia, Tripolitania, Tunis, Turkey, Uruguay, and Venezuela.

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

ARTICLE 1

DEFINITIONS

In the present Convention:

the term "radioelectric communication" or "radiocommunication" applies to the wireless transmission of writing, signs, signals, facsimiles, and sounds of all 30 kinds by means of Hertzian waves;

the term "radiocommunication station" or simply "station" means a station equipped for the purpose of effecting radiocommunication;

the term "fixed station" means a station established in a fixed spot and communicating with one or more stations similarly established;

the term "mobile station" means a station capable of moving which ordinarily does move;

the term "land station" means a station, other than a mobile station, used for radiocommunication with mobile stations;

the term "mobile service" means the radiocommunication service effected between mobile stations and land stations, and between mobile stations themselves;

the term "international service" means a radiocommunication service between
 10 a station in one country and a station in another country, or between a land station and a mobile station which is outside the limits of the country in which the land station is situated, or between two or more mobile stations on or over the high seas. An internal or national radiocommunication 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;

the term "general communications system" means the whole of the existing telegraph and telephone means of communication open to public service, both wire and wireless, with the exception of the radiocommunication channels of the mobile
 20 service;

the term "public service" means a service for the use of the public in general;

the term "restricted service" means a service which may be used only by specified persons or for particular purposes;

the term "public correspondence" means every radioelectric communication which a station, by virtue of its being available for public service, must accept from the public for transmission;

the term "private enterprise" means any individual person and any company or corporation which operates one or more stations for radio electric communications;

30 the term "radiotelegram" means a telegram originating in or destined for a mobile station, and transmitted over all or part of its course by radioelectric means.

ARTICLE 2

SCOPE OF THE CONVENTION

Sec. 1. The contracting Governments undertake to apply the provisions of the present Convention in all radiocommunication stations established, or operated by the contracting Governments, and open to the international service of public correspondence. They undertake also to apply these provisions to the special services governed by the Regulations annexed to the present Convention.

ARTICLE 5

SECURITY OF CORRESPONDENCE—FALSE OR DECEPTIVE SIGNALS

The contracting Governments undertake to adopt or to propose to their respective legislatures the measures necessary to prevent:

- (a) the unauthorized transmission and reception by means of radioelectric installations of correspondence of a private nature;
- (b) the divulgence of the contents, or merely of the existence, of correspondence illicitly intercepted by means of radioelectric installations;
- (c) the unauthorized publication or use of correspondence received by means
10 of radioelectric installations;
- (d) the transmission or the putting into circulation of false or deceptive distress signals or distress calls.

ARTICLE 6

INVESTIGATION OF INFRINGEMENTS

The contracting Governments undertake to help one another in inquiries concerning infringements of the provisions of the present Convention and the Regulations annexed thereto, as well as, if necessary, in the detection of persons infringing these provisions.

ARTICLE 7

20 CONNEXION WITH THE GENERAL COMMUNICATION SYSTEM

Each of the contracting Governments undertakes to adopt the measures necessary to ensure that land stations established on its territory and open to the international service of public correspondence are connected with the general communications system or at least to take steps to assure rapid and direct means of exchange between these stations and the general communications system.

ARTICLE 8

EXCHANGE OF INFORMATION REGARDING STATIONS AND SERVICES

30 The contracting Governments communicate to one another, through the medium of the International Bureau of the Telegraph Union, the names of the stations open to the international service of public correspondence and of the stations conducting special services governed by the Regulations annexed to the present Convention, as well as all the particulars necessary to facilitate and accelerate radioelectric exchanges.

ARTICLE 9

SPECIAL DEVICES

Each of the contracting Governments reserve the right to require or permit that in the stations contemplated in Article 8, besides the installation of which particulars are published in accordance with that Article, other devices may be installed and worked for special radioelectric transmission, without the particulars of such devices being published.

ARTICLE 10

CONDITIONS TO BE OBSERVED BY STATIONS—INTERFERENCE

10 Sec. 1. The stations contemplated in Article 2 must, so far as possible, be established and operated under the best conditions known in the practice of the service and must be kept abreast of scientific and technical progress.

Sec. 2. 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 and of individual persons or private enterprises authorized by those contracting Governments to conduct a public radiocommunication service.

ARTICLE 11

PRIORITY FOR DISTRESS CALLS

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

ARTICLE 12

CHARGES

The charges applicable to radiotelegrams and the several cases in which radiotelegrams receive free radioelectric transmission are fixed in conformity with the Regulations annexed to the present Convention.

ARTICLE 13

REGULATIONS—CONFERENCES

30 Sec. 1. The provisions of the present Convention are completed by:
(1) general Regulations which have the same validity and come into force at the same time as the Convention;
(2) additional Regulations which bind only the Governments which have signed them.

Sec. 2. The provisions of the present Convention and the Regulations annexed thereto are revised by Conferences of Plenipotentiaries of the contracting Governments, each Conference itself fixing the place and time of the next meeting.

Sec. 3. Before entering on its deliberations each Conference settles its Rules of Procedure, indicating the conditions under which the discussions are organized and conducted.

ARTICLE 14

SPECIAL ARRANGEMENTS

The contracting Governments reserve for themselves and for the private enter-
10 prises duly authorized by them to that effect the right to make special arrangements on 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 operation might be capable of producing with the services of other countries.

ARTICLE 15

SUSPENSION OF THE SERVICE

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

ARTICLE 16

INTERNATIONAL BUREAU

Sec. 1. The International Bureau of the Telegraph Union is charged with the duty of collecting and publishing information of every kind relative to radioelectric services, of circulating in due form requests for modification of the Convention and the Regulations annexed thereto, of announcing the changes adopted, and in general of undertaking any administrative tasks which may be assigned to it in the inter-
30 ests of international radioelectric services.

Sec. 2. The expenses resulting from these activities are borne by all the contracting Governments in the proportions fixed by the general Regulations.

ARTICLE 17

INTERNATIONAL TECHNICAL CONSULTATIVE COMMITTEE FOR RADIOELECTRIC
COMMUNICATIONS

Sec. 1. An International Technical Consultative Committee for Radioelectric Communications is established for the purpose of studying technical and related questions having reference to these communications.

Sec. 2. Its composition, functions and procedure are defined in the general Regulations annexed to the present Convention.

ARTICLE 18

10

RELATIONS WITH STATIONS OF NON-CONTRACTING COUNTRIES

Sec. 1. Each of the contracting Governments reserves to itself the right to fix the conditions on which it admits telegrams or radiotelegrams originating in or destined for a station which is not subject to the provisions of the present Convention.

Sec. 2. If a telegram or a radiotelegram is admitted, it must be forwarded, and the usual charges must be applied to it.

ARTICLE 19

ACCESSIONS

Sec. 1. (1) Governments which have not taken part in the present Con-
20 tion are permitted to accede to it at their request.

(2) This accession is notified through the diplomatic channel to the contracting Government on whose territory the last Conference was held and by that Government to all the others.

(3) It carries with it, of full right, accession to all the clauses of the present Convention and admission to all the advantages provided therein.

Sec. 2. (1) The accession to the Convention of the Government of a country having colonies, protectorates, or territories under sovereignty or mandate does not include the accession of those colonies, protectorates, or territories under sov-
30 the said Government.

(2) The whole of such colonies, protectorates, or territories under sovereignty or mandate, or each of them separately, may form the subject of a separate accession or of a separate denunciation under the conditions set forth in the present Article and in Article 23.

ARTICLE 20

ARBITRATION

Sec. 1. In the case of disagreement between two contracting Governments in respect of the interpretation or the execution either of the present Convention or of the Regulations provided for by Article 13, the question in dispute must, at the request of one of these Governments, be submitted to arbitration. For that purpose each of the Governments concerned chooses one other Government not concerned with the question.

10 Sec. 2. If agreement between the two arbitrators cannot be obtained the arbitrators co-opt one other contracting Government, also not concerned in the dispute. If the two arbitrators cannot agree upon the choice of a third Government, each arbitrator proposes a contracting Government not concerned in the dispute; and lots are drawn between the Governments proposed. The drawing of lots is proper to the Government in whose territory the International Bureau mentioned in Article 16 performs its work. The decision of the arbitrators is made by an absolute majority of votes.

ARTICLE 21

EXCHANGE OF LAWS AND REGULATIONS

20 The contracting Governments communicate to one another, if they think it useful, through the medium of the International Bureau of the Telegraph Union, the laws and regulations which have already been made or which may be made in their countries relative to the purposes of the present Convention.

ARTICLE 22

NAVAL AND MILITARY INSTALLATIONS

Sec. 1. The contracting Governments reserve their entire liberty with regard to the radioelectric installations not covered by Article 2, and especially with regard to naval and military installations.

30 Sec. 2. All such 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.

Sec. 3. Nevertheless, 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 provisions of the Regulations for the conduct of these services.

ARTICLE 23

EXECUTION, DURATION AND DENUNCIATION

Sec. 1. The present Convention shall be put into execution from the 1st January, 1929; and shall remain in operation for an indefinite period and until the expiry of one year as from the date upon which it is denounced.

10 Sec. 2. Denunciation shall only take effect as regards the Government in whose name it is made. So far as the other contracting Governments are concerned, the Convention shall remain in force.

ARTICLE 24

RATIFICATION

Sec. 1. The present Convention shall be ratified and the ratifications thereof shall be deposited in Washington in as short a time as possible.

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

20 In witness whereof, the respective Plenipotentiaries have signed the Convention in a single copy, which shall remain deposited in the archives of the Government of the United States of America and of which a copy shall be delivered to each Government.

Done at Washington, the 25th November, 1927.

No. 4

General Regulations Annexed to the International
Radiotelegraph Convention

ARTICLE 1

DEFINITIONS

In the present Regulations, in completion of the definitions stated in Article 1 of the Convention:

the term "mobile station" means any mobile station whatever;

the term "mobile stations" means all mobile stations, wherever they are;

10 the term "ship station" means a station on board a ship not permanently moored;

the term "aircraft station" means a station on board an aircraft;

the term "coast station" means a land station assigned for communication 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;

the term "aeronautical station" means a land station assigned for communication 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
20 period of its service with aircraft stations;

the term "station" means any station whatever without regard to its purpose;

the term "land station" has a general meaning: it is used when the services in view relate at the same time to communications with ship stations, with aircraft stations, and with other mobile stations of any sort. The term, therefore, means a coast station when communication with ship stations is in question, an aeronautical station when communication with aircraft stations is in question and any station on land intended for communication with other mobile stations of any sort;

the term "broadcasting service" means a service effecting the dissemination of radiotelephonic communications intended to be received by the public, either directly
30 or through the medium of relay stations;

the term "fixed service" means a service effecting radioelectric communications of any kind between fixed points, but does not include the broadcasting service or special services;

the term "mobile service" means a radiocommunication service effected between mobile stations and land stations, and by mobile stations communicating with one another, but does not include special services;

the term "special services" means radiobeacon services, direction-finding, emission of time signals, notices to navigators, standard waves, emissions having a scientific object, etc.;

the term "radiobeacon" means a special station, of which the emissions are intended to enable a receiving station to determine its bearing or direction in relation to the radiobeacon;

the term "direction-finding station" means a station provided with special apparatus intended to determine the direction of the emissions of other stations;

the term "broadcasting station" means a station used for the dissemination of
10 radiotelephonic emissions intended to be received by the public;

the term "private experimental station" means: (1) a private station intended for experiments with a view to the development of radioelectric practice or science; (2) a station used by an "amateur" that is to say a duly authorized person interested in radioelectric practice with a purely personal aim and without pecuniary interest;

the term "Administration" means a Government Administration.

ARTICLE 2

LICENCE

Sec. 1. No radioelectric sending station shall be established or worked by an individual person or by a private enterprise without a special licence issued by the
20 Government of the country to which the station in question is subject.

Sec. 2. The holder of a licence must undertake to preserve the secrecy of correspondence, both telegraphic and telephonic. Moreover, the licence must provide that the interception of radioelectric 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 in writing, communicated to others, or used for any purpose whatsoever.

Sec. 3. In order to facilitate the verification of licences 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.

ARTICLE 3

CHOICE AND CALIBRATION OF APPARATUS

Sec. 1. The choice of the radioelectric apparatus and devices to be used by a station is free, provided that the waves emitted are in conformity with the provisions of these Regulations.

Sec. 2. (1) The Administrations must take the measures necessary to assure themselves that the frequency meters (wave meters) used for the adjustment of the sending apparatus are calibrated as accurately as possible, by comparison with their national standard instruments.

(2) In cases of international dispute, comparisons are made by an absolute method of measuring frequencies.

ARTICLE 4

CLASSIFICATION AND USE OF RADIOELECTRIC EMISSIONS

Sec. 1. (1) Radioelectric emissions are divided into two classes:

- 10 A. Continuous waves,
 B. Damped waves,

defined as follows:

Class A.—Waves of which the successive oscillations are identical as a permanent condition.

Class B.—Waves consisting of successive trains in which the amplitude of the oscillations, after reaching a maximum, decreases gradually.

(2) Waves of Class A comprise the types given below, which are defined as follows:

Type A1. Unmodulated continuous waves. Continuous waves of which the
20 amplitude or frequency is varied by the operation of telegraphic keying.

Type A2.—Continuous waves modulated at audible frequency. Continuous waves, of which the amplitude or frequency is varied in a periodic manner at audible frequency, combined with telegraphic keying.

Type A3.—Continuous waves modulated by speech or by music. Continuous waves of which the amplitude or frequency is varied according to the characteristic vibrations of speech or music.

(3) The foregoing classification into waves of Types A1, A2, and A3 does not prevent the use, under conditions fixed by the Administrations concerned, of modulated and/or manipulated waves, by methods not falling within the definitions of
30 Types A1, A2 and A3.

(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). After this designation the approximate length in metres will be shown in parenthesis.

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 expressed in kilocycles per second.

Sec. 2. 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.

Sec. 3. The Administrations concerned fix the tolerance allowed between the mean frequency of the emissions and the notified frequency; they do their utmost
10 to take advantage of technical progress so as to reduce this tolerance gradually.

Sec. 4. The width of a band of frequencies occupied by the emission of a station must correspond reasonably with technical progress for the type of communication concerned.

Sec. 5. 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 not to produce serious interference with the working of stations engaged in services to which the immediately adjacent bands of frequencies are allotted.

ARTICLE 5

20 DISTRIBUTION AND USE OF FREQUENCIES (WAVE LENGTHS) AND TYPES OF EMISSION

Sec. 1. The Administrations of the contracting Governments 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.

Sec. 2. These Administrations, however, agree to assign to stations which by reason of their nature are believed to be 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.

Sec. 3. The Administrations also agree to consider the table of distribution of
30 bands of frequencies (*see* paragraph 7) as a guide giving, for the different services, the limits which must be observed for all new stations and to which all existing stations must be adapted with the least delay that is practicable, without diminishing the quality of the service which these existing stations maintain, account being taken of the present state of their installations.

Sec. 4. Nevertheless, the frequencies of all broadcasting stations at present working on frequencies below 300 kc/s (wave lengths above 1,000 m.) shall, in principle, be removed, not later than a year after the present Regulations come into force, either into the band between 160 and 224 kc/s (wave lengths 1,875 to 1,340 m.) or into the band between 550 and 1,500 kc/s (wave lengths 545 to 200 m.).

Sec. 5. No new broadcasting station shall be authorized to work in the band of frequencies between 160 and 224 kc/s (wave lengths 1,875 to 1,340 m.) unless no inconvenience therefrom will result to existing radiocommunication services, including broadcasting services conducted by stations which are already using frequencies in this band, and stations of which the frequencies are removed into this same band in conformity with the provisions of paragraph 4 above.

Sec. 6. The power of existing broadcasting stations which use frequencies below 300 kc/s (wave lengths above 1,000 m.) shall not be increased unless no inconvenience to existing radiocommunication services will result therefrom.

10 Sec. 7. The table on pages 38 to 41 shows the distribution of frequencies (approximate wave lengths) among the various services.

Sec. 8.—(1) Subject to the provisions of section 1 of the present Article, the use of Type B waves of a frequency below 375 kc/s (wave lengths above 800 m.) is forbidden as from the 1st January, 1930, except as regards existing land stations.

(2) No new installations for the emission of Type B waves shall be fitted in ships or in aircraft as from the 1st January, 1930, except when the transmitters working on full power consume less than 300 watts measured at the input of the supply transformer at audible frequency.

(3) The use of Type B waves of all frequencies shall be forbidden as from the 20 1st January, 1940, except for transmitters fulfilling the conditions as to power indicated in (2) above.

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

Sec. 9. The use of Type A3 waves is not authorized between 100 and 160 kc/s (3,000 and 1,875 m.).

Sec. 10. The use of Type A2 waves is not authorized between 100 and 150 kc/s (3,000 and 2,000 m.), except in the band 100 to 125 kc/s (3,000 to 2,400 m.) and then only for time signals.

30 Sec. 11. In the band 460 to 550 kc/s (650 to 545 m.) no type of emission capable of rendering inoperative the signals of distress, alarm, safety, or urgency sent on 500 kc/s (600 m.) is authorized.

Sec. 12. In principle, any station conducting a service between fixed points on a wave with a frequency below 110 kc/s (wave length above 2,725 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. A station is not permitted to use for a service between fixed points a frequency other than that assigned to it, as stated below.

Frequencies in Kilocycles per Second (kc/s).	Approximate Wave-lengths in Metres	Services
10-100	30,000-3,000	Fixed services.
100-100	3,000-2,725	Fixed services and mobile services.
110-125	2,725-2,400	Mobile services.
125-150 ¹	2,400-2,000 ¹	Maritime mobile services <i>open to public correspondence exclusively</i> .
150-160	2,000-1,875	Mobile service. (a) Broadcasting. (b) Fixed services. (c) Mobile services.
160-194	1,875-1,550	The conditions for use of this band are subject to the following regional arrangements: All regions where broadcasting stations now exist working in frequencies below 300 kc/s } broadcasting. (above 1,000 m.). Other regions { Fixed services. { Mobile services. Regional arrangements will respect the rights of other regions in this band. (a) Mobile services. (b) Fixed services. (c) Broadcasting.
194-285	1,550-1,050	The conditions for use of this band are subject to the following regional arrangements: Europe { (a) Air mobile services <i>exclusively</i> . { (b) Air fixed services <i>exclusively</i> . { (c) Within the band 250-285 kc/s (1,200-1,050 m.). { Fixed services <i>not open to public correspondence</i> . { (d) Broadcasting within the band 194-224 kc/s (1,550-1,340 m.). Other regions { (a) Mobile services except commercial ship stations. { (b) Air fixed services <i>exclusively</i> . { (c) Fixed services <i>not open to public correspondence</i> .
285-315	1,050-950	Radiobeacons.
315-350 ²	950-850 ²	Air mobile services <i>exclusively</i> .
350-360	850-830	Mobile services <i>not open to public correspondence</i> .
360-390	830-770	(a) Direction-finding. (b) Mobile services, on condition that they do not interfere with direction-finding.
390-460	770-650	Mobile services.
460-485	650-620	Mobile services (<i>except damped waves and radiotelephony</i>).
485-515 ³	620-580 ³	Mobile services (distress, calling, etc.).
515-550	580-545	Mobile services <i>not open to public correspondence (except damped waves and radiotelephony)</i> .
550-1,300 ⁴	545-230 ⁴	Broadcasting.
1,300-1,500	230-200	(a) Broadcasting. (b) Maritime mobile services, wave of 1,365 kc/s (220 m.) <i>exclusively</i> .
1,500-1,715	200-175	Mobile services.
1,715-2,000	175-150	Mobile services. Fixed services. Amateurs.

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

² The wave of 333 kc/s (900 m.) is the international calling wave for air services.

³ The wave of 500 kc/s (600 m.) is the international calling and distress wave. It may be used for other purposes on condition that such use does not interfere with calls and distress signals.

⁴ Mobile services may use the band 550 to 1,300 kc/s (545-230 m.) on condition that such use does not interfere with the services of a country which uses this band *exclusively* for broadcasting.

Frequencies in Kilocycles per Second (kc/s).	Approximate Wave-lengths in Metres	Services
2,000-2,250	150-133	Mobile services and fixed services.
2,250-2,750	133-109	Mobile services.
2,750-2,850	109-105	Fixed services.
2,850-3,500	105-85	Mobile services and fixed services.
3,500-4,000	85-75	Mobile services.
		Fixed services.
		Amateurs.
4,000-5,500	75-54	Mobile services and fixed services.
5,500-5,700	54-52.7	Mobile services.
5,700-6,000	52.7-50	Fixed services.
6,000-6,150	50 -48.8	Broadcasting.
6,150-6,675	48.8 -45	Mobile services.
6,675-7,000	45 -42.8	Fixed services.
7,000-7,300	42.8 -41	Amateurs.
7,300-8,200	41 -36.6	Fixed services.
8,200-8,550	36.6 -35.1	Mobile services.
8,550-8,900	35.1 -33.7	Mobile services and fixed services.
8,900-9,500	33.7 -31.6	Fixed services.
9,500-9,600	31.6 -31.2	Broadcasting.
9,600-11,000	31.2 -27.3	Fixed services.
11,000-11,400	27.3 -26.3	Mobile services.
11,400-11,700	26.3 -25.6	Fixed services.
11,700-11,900	25.6 -25.2	Broadcasting.
11,900-12,300	25.2 -24.4	Fixed services.
12,300-12,825	24.4 -23.4	Mobile services.
12,825-13,350	23.4 -22.4	Mobile services and fixed services.
13,350-14,000	22.4 -21.4	Fixed services.
14,000-14,400	21.4 -20.8	Amateurs.
14,400-15-100	20.8 -19.85	Fixed services.
15,100-15,350	19.85-19.55	Broadcasting.
15,350-16,400	19.55-18.3	Fixed services.
16,400-17,100	18.3 -17.5	Mobile services.
17,100-17,750	17.5 -16.9	Mobile services and fixed services.
17,750-17,800	16.9 -16.85	Broadcasting.
17,800-21,450	16.85-14	Fixed services.
21,450-21,550	14 -13.9	Broadcasting.
21,550-22,300	13.9 -13.45	Mobile services.
22,300-23,000	13.45-13.1	Mobile services and fixed services.
23,000-28,000	13.1 -10.7	Not reserved.
28,000-30,000	10.7 -10	Amateurs and experiments.
30,000-56,000	10 -5.35	Not reserved.
56,000-60,000	5.35-5	Amateurs and experiments.
Above 60,000	Below 5	Not reserved.

NOTE.—It is recognized that short waves (frequencies from 6,000 to 23,000 kc/s approximately—wave lengths from 50 to 13 m. approximately) are very efficient for long distance communications. It is recommended that as a general rule this band of waves should be reserved for that purpose, in services between fixed points.

Sec. 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. Nevertheless, regional arrangements may be made for exempting the stations concerned from the application of this rule.

Sec. 14. In order to facilitate the exchange of synoptic meteorological messages in European regions, two frequencies between 37.5 and 100 kc/s (wave lengths between 8,000 and 3,000 m.) shall be assigned to this service by regional arrangement.

Sec. 15. 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.

Sec. 16. (1) The frequencies assigned by Administrations to all new fixed, land or broadcasting stations of which they have authorized or have themselves undertaken the installation must be chosen so as to avoid so far as possible interference with international services effected by existing stations of which the frequencies have already been notified to the International Bureau. In the case of a change of
10 the frequency of an existing fixed, land or broadcasting station, the new frequency assigned to this station must comply with the condition mentioned above.

(2) The Governments concerned agree together when necessary in regard to the determination of the waves to be assigned to the stations in question as well as to the conditions of use of the waves so assigned. If no arrangement to prevent interference can be reached the provisions of Article 20 of the Convention may be applied.

Sec. 17. (1) Each Administration promptly notifies the International Bureau when it decides upon, or authorizes, the establishment of a radiocommunication station, of which the operation necessitates the allocation, for the purpose of a
20 regular service, of a particular frequency below 37.5 kc/s (wave length about 8,000 m.) where the use of this frequency might cause international interference over wide areas. This notice must reach the International Bureau four months before the construction of the proposed station so as to permit of the settlement of objections which any of the Administrations may raise to the adoption of the proposed frequency.

(2) Where a fixed station using short waves is intended to conduct a regular service and its radiation would be capable of causing international interference, the Administration concerned must, as a general rule before the completion of the station, and in any case before it is open for service notify to the International
30 Bureau the frequency assigned to the station.

(3) Such notification, however, is made only when the Administration concerned is certain that the service in question can be established within a reasonable time.

Sec. 18. (1) Each Administration may assign to amateur stations frequencies taken from the bands allotted to amateurs in the table of distribution (section 7 above).

(2) The maximum power which these stations may use is fixed by the Administration concerned, account being taken of the technical qualifications of the operators and of the conditions under which the stations must work.

(3) All the general rules laid down in the Convention and in these Regulations apply to amateur 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.

(4) In the course of their emissions, these stations must transmit their call signs at short intervals.

10

ARTICLE 6

SERVICE OF PRIVATE EXPERIMENTAL STATIONS

Sec. 1. The exchange of communications between private experimental stations in different countries is forbidden if the Administration of one of the countries concerned has notified objection to such exchange.

Sec. 2. When such exchange is permitted the communications must, unless the countries concerned have otherwise agreed among themselves, 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 not enter into consideration.

20 Sec. 3. In a private experimental station authorized to conduct transmission, any person operating the apparatus, either on his own account or for a third party, must have proved his ability to transmit passages in the Morse Code and to read, in radioelectric reception by ear, passages thus transmitted. He may be replaced only by authorized persons possessing the same qualifications.

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

ARTICLE 7

OPERATORS' CERTIFICATES

30 Sec. 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 radiotelephone installation (power not exceeding 300 watts input) capable of being used only for telephony, the service may be carried out by an operator holding only the radiotelephonist's certificate.

(2) If the operator is totally incapacitated in the course of a sea-passage, a flight, or a journey, the master or the person responsible for the mobile station may authorize, but only 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.

Sec. 2. There are two classes of certificates and special certificates for radio-
10 telegraph operators and one class of certificate for radiotelephone operators.

Certificates for Radiotelegraph Operators

Sec. 3. (1) Each Government is free to fix the number of examinations necessary to obtain a first-class certificate.

(2) The first-class certificate must state that the operator possesses the qualifications requisite for the radiotelephone operator's certificate. Each Government remains free to require or not these qualifications in the case of the second-class certificate.

(3) The minimum qualifications for obtaining these certificates are the following:

20

A. First Class

The first-class certificate states the professional and technical competence of the operator with regard to:

(a) Knowledge of the general principles of electricity, of the theory of radiotelegraphy and radiotelephony, and of the practical working of all apparatus used in the mobile service;

(b) 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 specified in sub-paragraph (a).

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

(d) Correct transmission and correct reception by ear of code groups (mixed letters, figures, and punctuation marks) at a speed of 20 (twenty) groups per minute, and of a plain language passage in the mother tongue at a speed of 25 (twenty-five) words per 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) Detailed knowledge of the Regulations applying to the exchange of radioelectric communications, knowledge of the documents relative to the assessment of the charges for radiotelegrams, knowledge of the radiotelegraph part of the Regulations for the Safety of Life at Sea, and, in the case of air navigation, knowledge of the special provisions governing the radioelectric service in air navigation.

(f) Knowledge of the general geography of the five parts of the world, and particularly the principal electrical connections by wire and wireless.

B. *Second Class*

The second-class certificate states the professional competence of the operator 10 with regard to:

(a) Elementary theoretical and practical knowledge of electricity and radiotelegraphy, and knowledge of the adjustment and working of the apparatus used in the mobile 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) Correct transmission and correct reception by ear of code groups (mixed 20 letters, figures, and punctuation marks) at a speed of 16 (sixteen) groups per minute and of a plain language passage in the mother tongue at a speed of 20 (twenty) words per 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) Knowledge of the regulations applying to the exchange of radioelectric communications, knowledge of the documents relative to the assessment of the charges for radiotelegraphs, knowledge of the radiotelegraph part of the Regulations for the Safety of Life at Sea, and, in the case of air navigation, knowledge of the special provisions governing the radioelectric service in air navigation.

30 (f) Elementary knowledge of general geography in relation to communications by wire and wireless.

C. *Special Certificate*

(1) The radiotelegraph service of small vessels (to which the Convention for the Safety of Life at Sea is not applicable) may be carried out by operators holding a special certificate satisfying the following conditions:

(a) The operators of such of these mobile stations as participate in the international service of public correspondence and in the general work of mobile stations must be capable of carrying out radioelectric communications at the sending and receiving speed required for obtaining a second class certificate.

(b) When these stations do not participate in that service, though, of course, acting in case of distress, and work on a special wave which does not interfere with other radioelectric services, it rests with each Government concerned to fix the conditions for obtaining the certificate.

(2) As an exception it is provisionally conceded that the Government of New Zealand may issue a special certificate, for which it shall fix the standard of qualifications, to 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.

10 Sec. 4. (1) Before becoming chief operator of a mobile station on board a ship of the first class (Article 20, section 2) 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 mobile station on board a ship of the second class (Article 20, section 2) a first class operator must have had at least six months' experience as operator on board ship or in a coast station.

(3) In order to qualify for service as a first class operator in an aircraft, the operator must prove the number of flying hours in the radioelectric service, fixed by the Administration which issues the certificate.

20 Sec. 5. Operators who have successfully passed the examination for the second class certificate receive from their Government temporary certificates authorizing them to embark as chief operators in ships of the third class (Article 20, section 2). After proving six months' service on board ship they may receive a final second class certificate authorizing them to perform similar duties in ships of the second class.

Certificates for Radiotelephone Operators

Sec. 6. (1) There is only one class of certificate for radiotelephone operators.

(2) This certificate states the professional competence of the operator with regard to—

- 30 (a) Knowledge of the adjustment and working of radiotelephone apparatus.
 (b) Ability to transmit and receive clearly conversation by telephone apparatus.
 (c) Knowledge of the Regulations applying to the exchange of radiotelephone communications and of the part of the radiotelegraph Regulations relating to the safety of life.

(3) Holders of radiotelephone operators' certificates may only be employed in ships, aircraft, etc., fitted with a low-power radiotelephone installation (300 watts input at the maximum) and solely for the telephone service.

(4) Radiotelephone operators in the aeronautical service must prove a minimum number of hours of flight on board an aircraft as fixed by the Administration concerned.

(5) 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.

Sec. 7. Each Administration takes the measures necessary for putting operators under the obligation to preserve the secrecy of correspondence and for preventing to
10 the greatest possible extent, the fraudulent use of certificates.

Sec. 8. The Government concerned will take the necessary steps so that certificates issued under former regulations shall remain valid for the holders of those certificates who are capable of satisfying in a general way the new conditions of issue.

Sec. 9. The provisions of the present Article will become obligatory not later than three years after the present Regulations come into force.

ARTICLE 8

AUTHORITY OF THE MASTER

Sec. 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
20 vehicle carrying the mobile station.

Sec. 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 9

GENERAL PROCEDURE IN THE MOBILE SERVICE

Sec. 1. In the mobile service, the procedure detailed below is obligatory, except in the case of distress calls or of distress correspondence, to which the provisions of
30 Article 19 are applicable.

Sec. 2. (1) Before proceeding with any transmission, the sending station must make sure that it will not cause excessive interference with other communications in progress within its range on the frequency to be used; if it is likely that such interference will be caused, the station awaits the first break in the transmission with which it might interfere.

(2) If, in spite of this precaution, a radioelectric transmission in progress is impeded by the call, the latter must cease at the first request from a land station open to the international service of public correspondence or from any aeronautical station. The station which requests this cessation must indicate the approximate duration of the wait imposed on the station whose call it has stopped.

Sec. 3. In mobile service radiotelegraph correspondence the following procedure is used for calling a station—

(1) (a) The station calling makes the call by transmitting not more than three times the call sign of the station called and the word DE, followed not more than
10 three times by its own call sign.

(b) In making this call the station calling uses the waves on which the station called keeps watch.

(2) The station called replies by transmitting not more than three times the call sign of the station calling, the word DE, its own call sign, and, if it is ready to receive traffic, the letter K (invitation to transmit), followed if it is thought necessary, by the appropriate abbreviation and a figure indicating the strength of the signals received.

(3) If the station called is not ready to receive, it replaces in the reply the letter K by the signal - — - - (wait), followed by a number indicating in minutes
20 the probable duration of the wait. If this is likely to exceed ten minutes, the reason for the wait must be given.

(4) When there are several radiotelegrams to be transmitted in the same direction, they may be transmitted in series with the consent of the station which is to receive them.

(5) This latter station, in giving its consent, indicates the number of radiotelegrams which it is ready to receive in a series, and after this indication sends the letter K.

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

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

(8) 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 sends the letter K and the transmission of the radiotelegram is continued.

(9) (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 in series, the call sign of the sending station and the letter K are sent only at the end of the series.

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

10 (b) The acknowledgment of receipt of a series of radiotelegrams is given by means of the letter R followed by the number of radiotelegrams received, as well as by the numbers of the first and last telegrams composing the series. This acknowledgment of receipt is preceded by the formula given above.

(11) 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.

Sec. 4. (1) If the station calling intends to transmit its traffic with a type of wave and/or on a frequency other than those used in making the call, it sends after its own call sign the service indications showing the type of wave and/or the frequency which it proposes to use for its transmission. The absence of these service
20 indications means that the station does not intend to change the type of wave or the frequency.

(2) If the station called wishes the station calling to send with a type of wave and/or on a frequency other than those used for the call, it adds to the reply formula the service indications showing the type of wave and/or the frequency which it desires to be used. The absence of these service indications means that the station does not desire that the type of wave and/or the frequency used for the call shall be changed.

(3) If the station calling has indicated that it is going to use for transmission a type of wave and/or a frequency other than those with which it made the call,
30 the station called, in the reply, gives before the letter K the abbreviations indicating that from that moment onwards it will listen on the type of wave and/or the frequency announced and that it will itself use the said type of wave and/or frequency throughout the communication.

(4) If the station calling is a land station entitled, according to the provisions of the present Regulations, to use a wave other than those which it is possible for the mobile station to emit, it may, after establishing contact, use this wave to transmit its traffic. In such case the procedure is as defined below:—

(a) The land station calls the mobile station by using the wave on which the latter keeps watch; and, after obtaining a reply, informs it by means of the appropriate abbreviation that it must listen thereafter on the wave which the land station intends to use.

(b) If the mobile station can receive the wave indicated, it sends the letter K. If it cannot, it informs the land station, by means of the appropriate abbreviation, that it is not possible for it to receive the wave suggested, and the two stations arrange to adopt another working wave.

(5) The land station stays on the wave which it has used until after the trans-
10 mission of the signal --- — — (end of work), followed by its call sign. This signal followed by the call sign, is repeated by the mobile station on the international calling wave assigned to its service.

(6) When the land station which receives a request to change the type of wave and/or the frequency cannot, or does not desire to, comply with this request, it does not transmit the signal K, but suggests, by the appropriate abbreviations, the use of another type of wave and/or another frequency.

Sec. 5. (1) On the wave of 500 kc/s (600 m.) (or on an authorized wave, in the case of communications with an aircraft station), the periods of continuous work between two stations must not exceed ten minutes or thereabouts; after each
20 of these periods a pause must be observed in order to permit, if necessary, another station to send a priority call or to transmit a priority message.

(2) On the other waves assigned to the maritime mobile service the length of the periods of continuous work is controlled by the coast station. In communications between two ship stations, the receiving station decides the length of the periods of continuous work.

(3) In communications between aircraft stations the length of the periods of continuous work is controlled by the receiving aircraft station, subject to the right of the aeronautical station to intervene for that purpose. In communications between aeronautical stations and aircraft stations, the aeronautical station controls
30 the length of the periods of continuous work.

Sec. 6. When a station receives a call without being certain that such call is intended for it, it shall 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, a station calling, it must reply immediately, using the signal --- — — in place of the call sign of this latter station.

Sec. 7. (1) When it is necessary to make test signals, in order to adjust the apparatus before calling or sending, such signals must not be made for more than

about ten seconds and they must be composed of a series of V's followed by the call sign of the station working.

(2) If a station sends test signals at the request of another station to enable the latter to adjust its receiving apparatus, these signals must likewise be composed of a series of V's in which the call sign of the transmitting station is interpolated several times.

ARTICLE 10

GENERAL CALL TO ALL MOBILE STATIONS

Sec. 1. (1) Stations desiring to enter into communication with mobile stations, 10 without, however, knowing the names of the mobile stations within their range of action, may use the signal of inquiry CQ, in place of the call sign of the station called in the calling formula, followed by the letter K (general call for all mobile stations with request for reply).

(2) 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.

(3) The call CQ not followed by the letter K (general call for all mobile stations without request for reply) is used for radiotelegrams of general information, time signals, regular meteorological bulletins, general safety notices, and information of all kinds intended to be read by anyone who can receive them.

20

ARTICLE 11

INTERFERENCE

Sec. 1. (1) The exchange of unnecessary signals is forbidden in mobile stations. Tests and experiments are allowed in these stations only in so far as they do not disturb the service of other stations.

(2) Each administration considers, before authorizing them, whether the proposed tests or experiments are likely to interfere with the service of other stations.

Sec. 2. Tests and adjustments in any station must be made in such a way as not to interfere with the service of other stations engaged in authorized correspondence. The test and adjustment signals must be of such a kind that no 30 confusion can be produced with a signal, abbreviation, etc., of special meaning defined by the Regulations.

Sec. 3. Any station making emissions for tests, adjustments, or experiments must transmit its call sign at short intervals during the course of these emissions.

Sec. 4. The Administration or private enterprise making a complaint regarding interference must, in order to support and justify the complaint, declare that it regularly uses receiving apparatus of a type equivalent to the best employed in the current practice of the service concerned.

ARTICLE 12

REPORTS OF INFRINGEMENTS

Sec. 1. If an Administration has information of a breach of the Convention or of these Regulations, committed in a mobile service station which it has authorized, it ascertains the facts, fixes the responsibility, and takes the necessary steps.

10 Sec. 2. Infringements of the mobile service regulations are reported by the stations which detect them, to the Administration to which those stations are subject, by means of forms similar to the specimen given in Appendix 2.

Sec. 3. In the event of repeated breaches by the same station, representations must be made to the Administration of the country to which the station is subject.

ARTICLE 13

PUBLICATION OF SERVICE DOCUMENTS

Sec. 1. The International Bureau prepares and issues the following service documents:

(a) A table and a map, as annexes to the List of ship stations, indicating the 20 zones and the hours of service on board ships of the second class (*see* Appendices 5 and 6).

(b) An alphabetical list of call signs of all fixed, land, and mobile stations to which a call sign from the international series has been allotted. This list is prepared without regard to nationality; it is preceded by a table of distribution of call signs showing the countries to which one or more blocks of call signs are assigned as provided in Article 14.

(c) Lists of all fixed, land, and mobile stations having a call sign from the international series, whether or not open to public correspondence, and a List of broadcasting stations.

30 Sec. 2. The List relating to each class of station is published in separate parts as follows:

I. *Fixed and Land Stations*

(1) List of stations by countries, the names of the countries being arranged in alphabetical order and the names of the stations of the same country being, in their turn, arranged in alphabetical order under the name of that country. This List is preceded by an alphabetical index giving the name of the station, the call sign, the indication of the character of the station and the number of the page on which the details relating to the station may be found.

(2) The word RADIO is printed separately after the name of each coast station.

10

II. *Stations performing Special Services*

(1) List of stations by countries with an alphabetical index similar to the one in the preceding part. The stations mentioned in this List are those which carry out special services for the needs of maritime and aerial navigation (direction-finding, radiobeacons, time-signals, notices to navigators, regular meteorological information, press messages addressed to all stations, etc.).

(2) The words GONIO and PHARE, respectively, are shown after the name of direction-finding stations and radiobeacon stations.

III. *Ship Stations*

List of stations arranged in alphabetical order, without regard to nationality, 20 giving in abbreviated form the name of the country to which each station belongs.

IV. *Aircraft Stations*

List of stations arranged in alphabetical order, without regard to nationality, giving in abbreviated form the name of the country to which each station belongs.

V. *Broadcasting Stations*

List of stations by countries with alphabetical index similar to that of Parts I and II.

Sec. 3. The supplements to the list of call signs and to the respective lists of stations contain additions, modifications and deletions arranged in alphabetical order. These supplements are issued monthly, and are recapitulatory.

30

List of Fixed and Land Stations

Sec. 4. (1) The particulars of fixed and land stations must include the following information—

- (a) name of the station;
- (b) call sign;

(c) exact geographical position of the transmitting aerial, indicated by the territorial subdivision and by the longitude and latitude in degrees, minutes and seconds, the longitude being calculated in relation to the meridian of Greenwich;

(d) types and frequencies (wave lengths) of emission available, the normal transmitting wave being underlined;

(e) normal radiation power expressed in metre-amperes or, failing this, height of the aerial and intensity of the current at the base of the aerial;

(f) nature of services performed;

(g) hours of service (Greenwich mean time);

10 (h) where necessary in the case of land stations, name of the private enterprise which prepares the accounts;

(i) land station charge or charges;

(j) special information concerning times for the transmission of traffic lists or for the transmission of radiotelegrams without acknowledgment of receipt or with deferred acknowledgment of receipt.

(2) The internal telegraph charge of the country to which the land station is subject and the charge applied by that country to telegrams destined for adjoining countries are shown in the list.

List of Stations Performing Special Services

20 Sec. 5. In addition to the particulars concerning fixed and land stations the information published must mention:

A. For direction-finding stations:

(a) whether or not the station is provided with transmitting apparatus, and, if not, the sending station with which it is conjoined;

(b) the wave on which the direction-finding station must be called; the wave on which mobile stations must send the signals prescribed for the taking of bearings; the wave on which the direction-finding station (or the sending station conjoined with it) must transmit the true bearings obtained, and the sectors in which bearings are normally accurate;

30 (c) when necessary, the normal radiation power, expressed in metre-amperes, of the sending station conjoined with it (or, failing this, the height of the aerial, and intensity of the current at the base of the aerial).

B. For radiobeacon stations:

(a) the characteristic signals of the stations;

(b) whether, in addition to its radiobeacon emissions, the station can transmit or receive ordinary communications;

(c) where necessary, the names of the stations with which it is necessary to get into communication in order to exchange messages with the radiobeacon if the latter is not able to send or receive communications;

(d) the sectors in which the emissions of the radiobeacon give bearings which are normally accurate.

C. For stations transmitting time signals:

the table of signals used and the times of transmission.

D. For stations transmitting notices to navigators or regular meteorological observations:

10 the times of transmission, and, if necessary, the name of the document or documents in which the details concerning these transmissions are to be found.

List of Ship Stations

Sec. 6. The particulars must comprise the following information:

(a) name of the ship followed by the call sign in case of duplication of names;

(b) call sign;

(c) country to which the station is subject (abbreviated indication);

(d) types and frequencies (wave lengths) of emission available, the normal transmitting wave being underlined;

20 (e) normal radiation power expressed in metre-amperes; or, failing this, height of the aerial and intensity of the current at the base of the aerial;

(f) nature of services performed (if the station is equipped with a direction-finder this should be indicated) and the hours of service;

(g) name of the Administration or private enterprise to which accounts for charges must be addressed.

(h) ship charge.

Sec. 7. In the case of duplication of names between two ship stations of the same nationality, and also in cases where the accounts must be sent directly to the owner of the ship, the name of the shipping company to which the ship belongs or of the shipowner is stated.

List of Aircraft Stations

30

Sec. 8. The particulars must comprise the following information:

(a) call sign of the station and name, if any, of the aircraft;

(b) name of the country to which the station is subject (abbreviated indication);

(c) mark and type of the aircraft;

- (d) types and frequencies (wave lengths) of emission available, the normal transmitting wave being underlined;
- (e) customary route or home airport of the aircraft;
- (f) nature of services performed and hours of service; if the station is equipped with a direction-finder, this should be indicated;
- (g) name of the Administration or private enterprise with which accounts for charges must be exchanged;
- (h) when necessary, aircraft station charge.

List of broadcasting stations

- 10 Sec. 9. The particulars must comprise the following information:
- (a) name of the station;
 - (b) call sign, if any;
 - (c) exact geographical position of the transmitting aerial, shown by the territorial subdivision and by the longitude and latitude in degrees, minutes and seconds, the longitude being calculated in relation to the meridian of Greenwich;
 - (d) frequency (wave length) of emission;
 - (e) normal radiation power expressed in metre-amperes; or, failing this, height of the aerial and intensity of the current at the base of the aerial;
 - (f) optionally, days and hours of emission; the hours are shown in Greenwich
- 20 mean time and countries using summer time state the time for each of the two periods of the year;
- (g) name of the Administration or private enterprise which conducts the service.

Symbols indicating the nature and duration of the service of stations

- Sec. 10. The following symbols are used in service documents:
- PG station open for public correspondence;
 - PR station open for restricted public correspondence;
 - N station open always, day and night;
 - Y station open from sunrise to sunset;
 - 30 X station not having fixed hours of service;
 - Z1 ship station of the second class, with 8 hours of service;
 - Z2 ship station of the second class, with 16 hours of service;
 - FA aeronautical station;
 - FC coast station;
 - FS land station established solely for life-saving purposes;
 - FX station performing a communication service between fixed points;
 - RF fixed radiobeacon station;

RG direction-finding station;

RS receiving station only, connected with the general communications system;

RW rotating radiobeacon station.

Sec. 11. The general form to be taken by the various Lists of Stations is shown in Appendix 3. Administrations or private enterprises must adopt forms identical with these for the particulars which they send to the International Bureau.

ARTICLE 14

CALL SIGNS

10 Sec. 1. Fixed, land, and mobile stations covered by section 1 of Article 2 of the Convention and also private experimental stations must have a call sign taken from the international series assigned to each country in the following table of distribution. In this table, the first letter or the first letters provided for the call signs show the nationality of the stations.

Sec. 2. Call signs consist of:

(a) three letters in the case of fixed and land stations;

(b) four letters in the case of ship stations;

(c) five letters in the case of aircraft stations;

20 (d) the letter or letters indicating the nationality and a single figure followed by a group of not more than three letters, for private experimental stations.

Sec. 3. In the aircraft radio service, after communication has been established by means of the five-letter call sign, 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.

30 Sec. 4. (1) The twenty-six letters of the alphabet 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 which might be confused with distress signals or with other signals of the same nature;

(c) combinations reserved for the abbreviations to be used in radioelectric transmissions;

(d) in the case of aircraft stations, combinations including the letter W as the second letter.

Sec. 5. (1) Each country selects the call signs of its stations from the international series allotted to it and notifies to the International Bureau the call sign allotted to each station.

(2) The International Bureau takes care that the same call sign is not allotted to more than one station and that call signs which might be mistaken for distress
10 signals or other signals of the same nature are not allotted to any station.

ARTICLE 15

INSPECTION OF STATIONS

Sec. 1. Mobile stations having their port of registry in a colony, possession or protectorate may be considered as subject to the authority of such colony, possession or protectorate, as regards the grant of licences.

Sec. 2. The competent authorities of the countries where a mobile station calls may require the production of the licence; this must be kept in such a way that it can be produced without delay. In default of such production, or when manifest irregularities are proved, such authorities may proceed to inspect the radio-
20 electric installations in order to satisfy themselves that these conform to the conditions imposed by the Present Regulations.

Sec. 3.—(1) When an Administration has found it necessary to adopt the course indicated in section 2 above, it immediately informs the Administration to which the mobile station in question is subject. In addition, the procedure specified in Article 12 is followed when necessary.

(2) The 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 8) or to their representative.

Sec. 4. With regard to the technical and operating conditions to which mobile
30 stations holding licences must conform, for international radioelectric service, the contracting Governments undertake not to impose upon foreign mobile stations which are temporarily within their territorial waters or 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 the Convention for the Safety of Life at Sea, are not covered by the present Regulations.

ARTICLE 16

CONDITIONS TO BE OBSERVED BY MOBILE STATIONS

Sec. 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 5. In accordance with these provisions, the use by mobile stations of damped waves (Type B) of a frequency below 375 kc/s (wavelength above 800 m.) shall be forbidden as from the 1st January, 1930.

(2) In addition, no new transmitting installation of Type B waves shall be made in mobile stations as from the 1st January, 1930, except when these transmitters working on full power use less than 300 watts measured at the input of the supply transformer at audible frequency.

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

Sec. 2. (2) Every station installed on a ship or on an aircraft making a passage over the sea must, if the ship or aircraft is compulsorily equipped with radio-electric apparatus as the result of an international agreement, be able to send and receive on the wave of 500 kc/s (600 m.) Type A2 or B. Ship stations must, in addition, be able to use the wave of 375 kc/s (800 m.), Type A2, (or B subject to the provisions of section 1 above).

(2) Aircraft stations must be able to send and receive on the wave of 333 kc/s (900 m.) Types A2 or A3 (or B subject to the provisions of section 1 above).

Sec. 3. (1) In addition to the fixed waves stipulated above, mobile stations equipped to send waves of Types A1, A2 or A3 may use all the waves authorized in Article 5.

(2) The use of waves of Type B is authorized only for the following frequencies (wavelengths):

Kc/s	Metres
375.....	800
410.....	730
425.....	705
454.....	660
500.....	600
665.....	450
1,000.....	300
1,364.....	220

(3) The use of the Type B wave of 665 kc/s (450 m.) is forbidden henceforth in regions where this wave may interfere with broadcasting.

(4) The use of the Type B wave of 1,000 kc/s (300 m.) for traffic is forbidden, henceforth, between 6 p.m. and midnight, local time, and shall be entirely forbidden, at all times, as from the 1st January, 1930, at the latest. The Type B wave of 1,000 kc/s (300 m.) may, however, continue in use indefinitely, without restriction as to hours, by stations on board fishing vessels, for direction-finding bearings among themselves, on condition that such use does not interfere with broadcasting.

10 Sec. 4. All apparatus in mobile stations which is installed for the transmission of Type A1 waves between 125 and 150 kc/s (2,400--2,000 m.) must permit the use of at least three frequencies chosen from this band, and must enable a rapid change to be made from one to another of these frequencies.

Sec. 5. (1) All stations on ships compulsorily equipped with radioelectric apparatus must be able to receive the wave of 500 kc/s (600 m.) and, in addition, all the waves necessary for carrying out the service which they perform.

(2) As from the 1st January, 1932, they must be able to receive easily and efficiently, on the same frequencies, waves of Types A1 and A2.

20 Sec. 6. Transmitting apparatus used in the mobile service must be provided with devices permitting reduction of power. This provision does not apply to transmitters, of which the input power does not exceed 300 watts.

Sec. 7. Receiving apparatus must be such that the current which it produces in the aerial is as small as possible and does not disturb neighbouring stations.

Sec. 8. The transmitting and receiving apparatus of every mobile station must be such as to allow changes of frequency to be 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 practicable.

ARTICLE 17

30

CALLING AND LISTENING WAVES

Sec. 1. (1) In the band between 360 and 515 kc/s (830-580 m.) the only Type B waves permitted are the following: 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 mobile stations in ships compulsorily equipped and by coast stations, is the wave of 500 kc/s (600 m.) (A1, A2 or B.).

(3) Except for the wave of 500 kc/s (600 m.) the use of waves of all types between 485 and 515 kc/s (620-580 m.) is forbidden.

(4) The wave of 500 kc/s (600 m.) is the international calling and distress wave. It may be used, with discretion, for other purposes, if it does not interfere with signals of distress, urgency or safety, or with calls.

(5) Coast stations must be able to use at least one wave besides that of 500 kc/s (600 m.). This additional wave is underlined in the List of Stations in order to show that it is the normal working wave of the station. The additional waves thus chosen may be the same as those of ship stations or they may be different. In
10 any case, the working waves of coast stations must be chosen so as to avoid interference with neighbouring stations.

(6) Besides the normal working waves underlined in the List, coast and ship stations may use, in the authorized band, additional waves which they think suitable. These waves are indicated in the List without being underlined.

Sec. 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 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 the 15th minute and at the 45th minute of each hour Greenwich mean time.

20 (2) Stations conducting a service of radiotelegraph correspondence, press, etc., with ships at sea must remain silent during the periods indicated above. Only the transmissions contemplated in Article 19, sections 25 to 27, may be made during these periods.

(3) As an exception, however, land and ship stations equipped to correspond by means of continuous waves may continue to work during these periods if they are in a position to maintain at the same time an adequate watch on the distress wave as prescribed in paragraph (1) of the present section.

Sec. 3. The following rules must be observed in the operation of stations in the mobile service using Type A1 waves in the band 100 to 160 kc/s (3,000--1,875
30 m.), which is assigned to the mobile service:

(a) Every coast station conducting communications on a long continuous wave must keep watch on the wave of 143 kc/s (2,100 m.) unless otherwise indicated in the List of Stations. The coast station transmits all its traffic on the wave or waves specially assigned to it.

(b) When a mobile station desires to establish communication on a long continuous wave with another station of the mobile service, it must use the wave of 143 kc/s (2,100 m.), unless otherwise indicated in the List of Stations. This wave, designated as the general communication wave, must be used:

(1) for calls and answers to calls;

(2) for sending signals preliminary to the transmission of traffic.

(c) A mobile station, after establishing communication on the general communication wave, with another station in the mobile service, may transmit its traffic on any wave in the authorized band on condition that it does not disturb the working of a coast station or working in progress on the calling wave.

(d) As a general rule, every mobile station, equipped for service on long continuous waves and not engaged in communication on another wave, must, in order to permit of exchanges of traffic with other stations of the mobile service, revert to the wave of 143 kc/s (2,100 m.) for 10 minutes from the beginning of the 35th minute to the beginning of the 45th minute of each hour, Greenwich mean time, during their specified hours of watch, according to the class to which the station in question belongs.

(e) (1) Coast stations transmit their traffic lists at specified times, published in the List of Stations, on the wave or waves which are assigned to them.

(2) Outside the times fixed for the transmission of their traffic lists, coast stations may call mobile stations individually, at any time, according to circumstances or to the work which they have to perform. These individual calls may be made on the wave of 143 kc/s (2,100 m.) in areas where there is not congestion of traffic.

(f) Special provisions concerning the service performed by land stations equipped with long continuous waves are shown in a special note in the List of Stations.

ARTICLE 18

EMERGENCY INSTALLATIONS

Sec. 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.

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

ARTICLE 19

DISTRESS, ALARM, URGENCY, AND SAFETY SIGNALS

Distress Signal

Sec. 1. The distress signal consists of the group - - - — — — - - - which indicates that the ship, aircraft, or other vehicle carrying the mobile station sending it, is threatened by grave and imminent danger, and requests immediate assistance.

Distress Call

Sec. 2. (1) The distress call consists of the distress signal sent three times, followed by the word DE and by the call sign of the mobile station in distress sent three times. This call has absolute priority over all other transmissions. All mobile or land stations which hear it must immediately cease all transmissions capable of interfering with the distress calls or messages and must listen on the wave used for the emission of the distress call. This call must not be addressed to a particular station.

(2) The same rules apply to the radiotelephone distress call which consists 10 of the spoken expression MAYDAY (corresponding to the French pronunciation of the expression "m'aider").

Distress Message

Sec. 3. The distress message comprises the distress call followed by the name of the ship, aircraft, or vehicle in distress, and particulars of its position, the nature of the distress and the kind of assistance desired.

Sec. 4. As a general rule, when a ship or aircraft on or over the sea is concerned, the position must be expressed in latitude and longitude (Greenwich) using figures for degrees and minutes accompanied by one of the words NORTH or SOUTH, and one of the words EAST or WEST. The degrees are separated 20 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.

Sec. 5. 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.

Ses. 6. A station on board a ship in distress must transmit the distress call on the wave of 500 kc/s (600 m.), preferably Type A2 or B. This call must be followed as soon as possible by the distress message.

Sec. 7. The distress call and message must be repeated at intervals, until an answer is received, and especially during the periods of silence prescribed in 30 Article 17, section 2. The intervals must, however, be long enough for stations preparing to reply to the call to have time to start their sending apparatus. When the ship in distress receives no answer to a distress call or message sent on the 500 kc/s (600 m.) wave, the call and the message may be repeated on any other available wave on which attention might be gained.

Sec. 8. A mobile station which observes that another mobile station is in distress may transmit the distress message on condition that:

(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.

Sec. 9 (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 15 and 16 below), taking care not to interfere with the transmission of similar acknowledgments of receipts sent by other
10 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.

Distress Traffic

Sec. 10. Distress traffic comprises all messages relative to the immediate assistance required by the mobile station in distress.

Sec. 11. All distress traffic must include the distress signal, sent before the time of handing-in.

20 Sec. 12. The control of distress working belongs to the mobile station in distress or to the mobile station which, by application of the provisions of section 8, sub-paragraph (a), has issued the distress call. These stations may delegate the control of the distress working to another station.

Sec. 13. All stations which are within the zone of the distress communications but which do not take part in them must refrain from using the distress wave until the distress working has ceased. As soon as distress working is established on the distress wave, mobile stations not taking part in it may continue their normal service on other authorized waves of Type A1, if by so doing, they are not prevented from clearly receiving the distress traffic.

30 Sec. 14 (1) When the distress working has ceased and silence is no longer necessary, the station which has controlled such working sends a message on the distress wave addressed to CQ, indicating that the distress working has ceased. This message takes the following form:

Call 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 mobile station which was in distress, words "distress traffic ended."

(2) This message is repeated, if necessary, on the other waves on which the distress working has taken place.

Acknowledgment of Receipt of a Distress Message

Repetition of a Distress Call or Distress Message

Sec. 15. The acknowledgment of receipt of a distress message is given in the following form:

10 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.

Sec. 16. Every mobile station which acknowledges receipt of a distress message must make its name and position known as soon as possible (in the form shown in section 4), taking care not to interfere with other stations better situated to render immediate assistance to the station in distress.

20 Sec. 17. If a mobile station using continuous waves not included in the band 485 to 515 kc/s (620-580 m.) hears a distress message sent on the wave of 500 kc/s (600 m.), outside the silence periods prescribed for the wave of 500 kc/s (600 m.), and if the ship, aircraft or other vehicle carrying the mobile station is not in a position to render assistance, the said station must take all possible steps to attract the attention of other mobile stations in the vicinity, which are working on waves not included in the band mentioned above.

Sec. 18. Repetitions of the distress call or message, by mobile stations other than the one in distress, are permitted only on the authority of the master of the stations (or his substitute), care being taken not to cause interference by unnecessary repetition.

Sec. 19. A station which repeats a distress call or message adds to the end thereof the word DE followed by its own call sign transmitted three times.

30 Sec. 20. When a station receives a distress call or message but is not in a position to render assistance and has reason to believe that there has been no acknowledgment of receipt of the distress message, it must repeat the message on full power on the distress wave and take all the necessary steps to notify the authorities who may be able to intervene usefully.

Automatic Alarm Signal

Sec. 21. The automatic alarm signal must fulfil the following conditions:

(a) The signal must be capable of being sent by hand or by automatic apparatus, without difficulty and with a precision in timing which must not be greater than can be judged from a watch or a clock having a seconds hand.

(b) Its composition must be clear, distinct, and easily recognized by a person ignorant of the Morse Code; and it must lend itself to the easy and cheap construction of an automatic receiver which:

1. responds to the alarm signal even when many stations are working and
10 when there is atmospheric interference;

2. is not actuated by strong signals or by atmospherics when these are not accompanied by the alarm signal;

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

4. gives warning when its operation ceases to be normal.

(c) The signal must be different from the signal used for the adjustment and working of the variometer.

(d) Before an automatic alarm receiver is approved for use in ships under the jurisdiction of an Administration, the Administration must be satisfied by practical
20 tests made under suitable conditions of interference, that the apparatus fulfils the provisions of these Regulations.

(e) The following alarm signal is henceforth recognized:

a series of twelve dashes sent in one minute, the duration of each dash being four seconds and the duration of the space between two dashes, one second.

(f) This special signal must have for its sole purpose the actuation of the devices used to give the alarm. It must be used solely to announce that the distress signal is about to follow.

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

Urgency Signal

Sec. 22. (1) The urgency signal consists of several 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 a call. This signal indicates that the station calling has a very urgent message to transmit concerning the safety of the ship,

aircraft, or other vehicle in which it is borne; of a ship, aircraft, or other vehicle in sight; or, finally, of the safety of any person on board or within sight. In the aircraft radio service the expression PAN is used as the urgency signal, in radiotelephony and in radiotelegraphy, when an aircraft station wishes to give notice of damage which compels the aircraft to land without requiring immediate assistance. In radiotelegraphy, the three letters must be clearly separated in order that the signals AN may not be changed into the signal P.

(2) 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
10 with the transmission of the urgency traffic.

As a general rule, the urgency signal may be used only if the mobile station which emits it addresses it to a specific station.

Sec. 23. (1) Mobile stations which hear the urgency signal must continue to listen for at least three minutes. At the end of this period, if no urgency message has been heard, they may resume their normal service.

(2) Nevertheless land and ship stations, which are in communication on authorized 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.

Sec. 24. The urgency signal shall be transmitted only on the authority of the
20 master or the person responsible for the ship, aircraft, or other vehicle bearing the mobile station.

Safety Signal

Sec. 25. The safety signal consists of the group TTT, transmitted with the letters well separated, followed by the word DE and by the call sign of the station which emits it. It indicates that this station is about to transmit a message concerning the safety of navigation or giving important information relative to meteorological warning messages.

Sec. 26. The safety signal and the safety message are sent on the wave of
30 500 kc/s (600 m.) and on the normal listening wave of ship and aircraft stations as the case may be.

Sec. 27. The safety signal is sent once during the first silence period which occurs (Article 17, section 2) and towards the end of that period. All stations hearing it must continue to listen on the normal calling wave (ship stations) or on the authorized wave (aircraft stations) until the message announced by the safety signal is ended. The transmission of this message begins immediately after the end of the silence period.

ARTICLE 20

WORKING HOURS OF STATIONS IN THE MOBILE SERVICE

Land Stations

Sec. 1. (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 authorized private enterprise whose right to do so is recognized by the laws of its country, fixes the hours of service for land stations under its jurisdiction.

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

10 1, finishing all operations resulting from a distress call;

2, exchanging all radiotelegrams originating in, or destined for, mobile stations which are situated within their range of action 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 radioelectric communications.

Ship Stations

Sec. 2. (1) From the point of view of the international service of public correspondence, ship stations are divided into three classes—

20 1st class: stations open always.

2nd class: stations having fixed working hours of limited duration.

3rd class: stations having working hours of less duration than those specified for the stations in the second class, and stations not having fixed working hours.

(2) The provisions of section 1, paragraph (2), of the present Article apply strictly to ship stations, as regards distress service. The principle of sub-paragraph 2 of that paragraph is applied in such stations so far as practicable.

(3) It rests with each of the contracting Governments to ensure the efficiency of the service in ship stations of its nationality by requiring the presence in such stations of the necessary number of operators, account being taken of its own legis-
30 lation on this subject.

(4) During navigation, ship stations of the second class must provide a service as follows—

(a) in the case of short voyages, during the hours fixed by the Administration to which they are subject;

(b) in other cases, at least during the hours assigned to them in Appendix 5. Mention of these hours is made in the licence.

Aircraft Stations

Sec. 3. Aircraft stations are divided into two classes—

1st class: stations performing a service throughout the period of flight;

2nd class: stations not having fixed hours of service.

Sec. 4. So far as concerns the international service of public correspondence of mobile stations, the staff of these stations must include at least—

(a) For mobile stations of the 1st class, an operator holding a 1st class certificate;

(b) For mobile stations of the 2nd class, an operator holding a 1st or 2nd 10 class certificate;;

(c) For mobile stations of the 3rd class, an operator who has passed the examination for the 2nd class certificate.

ARTICLE 21

INFORMATION TO APPEAR IN THE LICENCE

The Government which issues the licence to a ship station or an aircraft station mentions therein the class in which such station is placed. In the case of a ship station placed in the second class, the licence also indicates the hours of service assigned to the station, in conformity with the particulars given in Appendix 5.

20

ARTICLE 22

ADDRESS OF RADIOTELEGRAMS

Sec. 1. (1). The address of radiotelegrams destined for mobile stations must be as complete as possible; it must be drawn up as follows:—

(a) name or designation of the addressee; with supplementary particulars, if necessary;

(b) name of the ship or, in the case of an aircraft, the call sign, as it appears in the first column of the List of Stations;

(c) name of the land station, through which the message is to be forwarded, as it appears in the List of Stations.

30 (2) The name and call sign required under section 1, paragraph (1) (b), may, however, be replaced, at risk of the sender, by particulars of the voyage made by such mobile station, indicated by the names of the ports of departure and of destination, or by any equivalent indication.

(3) In sending on, over the general communication system, a radiotelegram received from a mobile station, the land station transmits as the office of origin the name of the mobile station whence the radiotelegram emanates, as it appears in the List of Stations, followed by the name of the land station.

Sec. 2. (1) Mobile stations authorized not to carry the official List of Telegraph Offices may add to the name of the telegraph office of destination the name of the territorial subdivision and, if necessary, the name of the country of destination, if it is doubtful whether, without this addition, the message could be correctly sent on without hesitation.

(2) In that case the name of the telegraph office and the supplementary particulars are counted and charged for as a single word. The land station operator receiving the radiotelegram retains or deletes these particulars or modifies the name of the office of destination as may be necessary or sufficient to forward the radio-
10 telegram to its proper destination.

ARTICLE 23

ORDER OF PRIORITY IN ESTABLISHING COMMUNICATIONS IN THE MOBILE SERVICE

The order of priority in establishing communications in the mobile service is as follows:—

1. distress calls, distress messages, and distress traffic;
2. communications preceded by an urgency signal;
3. communications preceded by the safety signal;
4. communications relative to direction-finding bearings;
5. all other communications.

20

ARTICLE 24

CALLING

Sec. 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 having come within the radius of action of the land station.

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

Sec. 2. (1) Nevertheless, land stations may transmit their traffic lists, consisting of the call signs of all mobile stations for which they have traffic on hand,
30 at prearranged times as fixed by agreement between the Governments concerned. Land stations which transmit their calls on the wave of 500 kc/s (600 m.) transmit the call signs of their traffic list in alphabetical order; land stations which use continuous waves transmit such call signs in the order which appears to them to be the most convenient.

(2) In all cases, mobile stations which, during this transmission, hear their call sign must reply as soon as they can do so under the provisions of section 1, following so far as possible the order in which they were called. The time at which land stations transmit their traffic lists, and the frequencies and types of waves which they use for this purpose are stated in the List of Stations.

(3) The land station makes known to each mobile station concerned the frequency and type of waves which will be used for working with it, and the approximate time at which such working may begin.

10 Sec. 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.

Sec. 4. (1) When a land station answers a call from a mobile station it may, if it thinks it necessary, ask the mobile station, by means of the appropriate abbreviations, to state the number of radiotelegrams on hand.

20 (2) If information concerning the position, route, speed or ports of call of the ship, aircraft or other vehicle bearing the mobile station appears necessary to the land station, the latter asks for it by means of a free service message, addressed to the master, or to the person in charge of the ship, aircraft or other vehicle bearing the mobile station, who furnishes it or not at his own discretion. The mobile station must not give such information to the land station until it has been requested and furnished as stated above.

Sec. 5. In communication between coast stations and mobile stations, the mobile station conforms to the instructions given by the coast station, in all questions relating to the order and time of transmission, and to the suspension of work. This provision does not apply to cases of distress.

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

30 Sec. 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 may not be resumed until after an interval of fifteen minutes. 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.

Sec. 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 in the List, 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 the purpose the appropriate abbreviations.

ARTICLE 25

TIME OF HANDING-IN OF RADIOTELEGRAMS

Sec. 1. For the purpose of indicating the time of handing-in of radiotelegrams accepted in mobile stations, the accepting officer takes Greenwich mean time, and uses the notation of the twenty-four hour system. The time is always expressed and transmitted by means of four figures (0000 to 2359).

Sec. 2. Nevertheless, the Administrations of countries situated outside Zone "A" (Appendix 6) may authorize ship stations passing along the coasts of their countries to use zone time for giving, by a group of four figures, the time of handing-in, and in this case the group must be followed by the letter F.

ARTICLE 26

ROUTING OF RADIOTELEGRAMS

Sec. 1. (1) In principle, a mobile station which is using waves of Type A2, A3 or B transmits its radiotelegrams to the nearest land station.

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

30 Sec. 2. A mobile station which uses Type A1 waves included in the authorized band may transmit its radiotelegrams to a land station which is not the nearest. It is, however, recommended, in this case, that preference should be given 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 which are to be sent.

Sec. 3. (1) A coast station, to which one or more waves included in the band 125 to 150 kc/s (2,400-2,000 m.) are allocated, has the right of preference in such wave or waves.

(2) Any other station in the mobile service transmitting public traffic on such wave or waves and thereby interfering with the coast station must suspend its work at the request of the latter.

Sec. 4. Except in the case of distress, communications between ship stations must not interfere with the working of coast stations. When such interference occurs, the ship stations which are the cause of the interference must stop transmitting or must change their waves, at the first request of the coast station with which they interfere.

Sec. 5. 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 sections are fulfilled.

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

(2) Every mobile station which is about to close its service in consequence of arrival in a port must so notify the nearest land station.

ARTICLE 27

20

WAVE TO BE USED IN CASE OF DISTRESS

In case of distress, the wave of 500 kc/s (600 m.) must be used preferably with Type A2 or B. When it is not possible to use one of these types of waves, Type A1 or A3 may be used. 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, indicate its situation, and obtain assistance.

ARTICLE 28

MEASURES FOR REDUCING INTERFERENCE

Sec. 1. Where waves other than the normal wave may be used, the ship station observes the instructions of the coast station with which it is in communication. In principle, the normal wave of 500 kc/s (600 m.) must not be used for the transmission of long radiotelegrams in areas where radioelectrical working is congested.

Sec. 2. During their hours of service, stations which use for their work waves of Type A2, A3 or B, and are open to the international service of public correspondence, must continue to listen on the wave of 500 kc/s (600 m.) except when they are exchanging traffic on other waves.

Sec. 3. As a general rule, it is recommended that public correspondence traffic should be transmitted on waves of Type A1, rather than on waves of Type A2 or B.

Sec. 4. All stations in the mobile service are bound to exchange traffic with the minimum of radiated energy necessary to ensure good communication.

ARTICLE 29

ADVICE OF NON-DELIVERY

Sec. 1. When, for any cause, a radiotelegram originating in a mobile station and destined for a place on land cannot be delivered to the addressee, a notice
10 of non-delivery is issued addressed to the land station which received the radiotelegram from the mobile station. This land station, after verifying the address, forwards the notice, if possible, to the mobile station by way, when necessary, of another land station of the same country or of a neighbouring country, in so far as existing conditions or special agreements, if any, permit.

Sec. 2. When a radiotelegram received at a mobile station cannot be delivered, that station so informs the office or mobile station of origin by a service advice. In the case of a radiotelegram coming from land this service advice is sent, whenever possible, to the land station through which the radiotelegram passed or, if necessary, to another land station of the same country or of a neighbouring country,
20 in so far as existing conditions or special agreements, if any, permit.

ARTICLE 30

PERIOD OF RETENTION OF RADIOTELEGRAMS AT LAND STATIONS

Sec. 1. (1) When the mobile station to which a radiotelegram is addressed has not notified its presence to the land station within the time specified by the sender, or, in the absence of such indication, by the morning of the fifth day following the date of handing-in, the land station informs the office of origin, which notifies the sender. The latter may ask, by paid service message, telegraphic or postal, addressed to the land station, that his telegram be kept until the end of the
30 the radiotelegram is treated as undelivered at the end of the seventh day.

(2) The lapse of any of the periods mentioned above is ignored if the land station is sure that the mobile station will soon come within its range.

Sec. 2. On the other hand, the lapse of those periods is not awaited when the land station is sure that the mobile station has definitely left its radius of action. If it presumes that no other land station of the Administration or of the private

enterprise to which it is subject is in communication with the mobile station the land station cancels the radiotelegram in so far as concerns the section between the land station and the mobile station, and informs the office of origin, which notifies the sender. In the contrary case, the radiotelegram is forwarded to the land station which is presumed to be in communication with the mobile station, provided, however, that no additional charge results therefrom.

Sec. 3. When a radiotelegram cannot be transmitted to a mobile station owing to the arrival of the latter in a port near the land station, the latter station may, if necessary, forward the radiotelegram to the mobile station by other means of
10 communication.

ARTICLE 31

SPECIAL SERVICES

A. Meteorological Services. Time Signals. Notices to Navigators

Sec. 1. Meteorological synoptic messages and messages containing forecasts and/or a survey of the general meteorological situation, and the time signals must, in principle, be transmitted in conformity with a fixed time-table. Radiotelegrams of this class intended for mobile stations must be sent, so far as possible, at times when they can be received by stations having only one operator (see Appendix 5); the speed of transmission must be such that the signals can be read by an oper-
20 ator possessing only a second-class certificate.

Sec. 2. During transmissions "to all stations" of time signals and of meteorological messages intended for stations of the mobile service, all stations in that service of which the transmissions might interfere with the reception of the signals and messages in question, must keep silent in order to permit all stations which desire to do so to receive these signals and messages.

Sec. 3. Meteorological warning messages and notices concerning the safety of navigation which are of urgent interest to the mobile services are transmitted immediately and must be repeated at the end of the first silence period which follows (see Article 17, section 2). These messages and notices must be sent on the frequencies
30 assigned to the mobile service for which they are destined; their transmission is preceded by the safety signal TTT.

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

Sec. 5. In the interests of brevity and of their proper use by mobile stations, meteorological observations transmitted by stations in the mobile service must, in principle, be drawn up according to an international meteorological code.

B. *Service of Direction-Finding Stations*

Sec. 6. The Administrations to which direction-finding stations are subject accept no responsibility for the consequences of an inaccurate bearing.

10 Sec. 7. These Administrations notify, for insertion in the List of Radiotelegraph Stations, the characteristics of each direction-finding station, indicating, for each one, the sectors in which bearings are normally accurate. All changes in these details must be published without delay; if the change is of a permanent nature it must be communicated to the International Bureau.

Sec. 8. (1) In normal service, coast direction-finding stations must be capable of taking and furnishing bearings to ship stations either on the frequency of 500 kc/s (600 m.) only, or on the frequency of 375 kc/s (800 m.) only, or on both of these two frequencies.

An aircraft station desiring to obtain a bearing must, in order to ask for it, call on the wave of 333 kc/s (900 m.) or on a wave assigned to the aerial route on which it is flying. In all cases where an aircraft station, being near coast stations, applies to them for a bearing, it must use the frequency of such coast stations.

20 Sec. 9. The procedure to be followed in the direction-finding service is given in Appendix 8.

C. *Radiobeacon Service*

Sec. 10. (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 may be either circular or directional.

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

30 (2) Radiobeacons properly so-called use waves from 285 to 315 kc/s (1,050-950 m.) of Types A1 and A2 exclusively.

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

Sec. 11. The signals sent by radiobeacons must permit of a good bearing being taken with the direction-finder; they must be selected in such a way as to avoid all uncertainty, when there is need to distinguish between two or more radiobeacons.

Sec. 12. Administrations which have organized a radiobeacon service accept no responsibility for the consequences of inaccurate bearings obtained by means of the radiobeacons of such service.

Sec. 13. (1) Administrations notify, for insertion in the List of Radiotelegraph Stations, the characteristics of each radiobeacon properly so-called, and of each station deputed to act as a radiobeacon, including, if necessary, particulars of the sectors in which bearings are normally trustworthy.

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

ARTICLE 32

ACCOUNTING

Sec. 1. (1) Land station and ship charges do not enter into the international telegraph accounts.

(2) The accounts relating to these charges are settled by the Administrations of the countries concerned. They are prepared month by month by the Administrations to which the land stations belong and are communicated by them to the Administrations concerned.

20 Sec. 2. Where the working of the land stations is not in the hands of the Administration of the country, the enterprise working the stations may be substituted, in respect of accounts, for the Administration of the country.

30 Sec. 3. In the case of radiotelegrams originating in mobile stations, the Administration to which the land station is subject debits the Administration to which the mobile station of origin is subject with the land station charges, with the charges relating to transmission over the general communication system—which will hereafter be called telegraph charges—with the total charges collected for pre-paid replies, with the land station and telegraph charges collected for collation, with the charges relating to express delivery, to delivery by post or air post, and with the charges collected for supplementary copies of multiple telegrams. Radiotelegrams are treated, from the point of view of accounting between the land station and the office of destination, as telegrams originating in the country in which the land station is situated.

Sec. 4. 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 to 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 up the charge per telegram in any manner.

Sec. 5. In the case of radiotelegrams and paid services advices addressed to mobile 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 charges plus the land station and ship charges (for radiotelegrams) applicable to collation, but only where the telegram has been transmitted to the mobile station. The Administration to which the office of origin is subject is always debited, from country to country if necessary, through the channel of the telegraph accounts, by the Administration to which the land station is subject, with the total charges relating to prepaid replies. As regards telegraph charges and charges relating to delivery by post or air post, and to supplementary copies, the procedure, so far as 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 mobile station of destination is subject, with the ship charge, with any charges due to intermediate mobile stations, with the total charge collected for prepaid replies, with the ship charge relating to collation, with the charges collected for supplementary copies of multiple telegrams, and with the charges collected for delivery by post or by air post.

Sec. 6. Paid service advices and replies to telegrams with prepaid replies, are treated in the radiotelegraph accounts, that is to say, the accounts relating to transmission in the mobile service, in all respects like other radiotelegrams.

Sec. 7. In the case of radiotelegrams exchanged between mobile stations,

(a) through the medium of a single land station:

The Administration to which the land station is subject debits the one to which the mobile station of origin is subject with the land station charge, with the land telegraph charge, if any, and with the charge of the mobile station of destination. It credits the Administration to which the mobile station of destination is subject with the ship 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 mobile station of origin is subject with all charges collected after deduction of the charge due to that mobile station. The Administration to which the second land station is subject—the station which has to transmit the

radiotelegram to the mobile station of destination—debts direct the Administration to which the first land station is subject with the charges relative to this transmission, but only where the radiotelegram has been transmitted to the mobile station.

Sec. 8. In the case of radiotelegrams which, at the request of the sender, are forwarded through one or two intermediate mobile stations, each of these latter stations debits the mobile station of destination if the radiotelegram is destined for a mobile station, or the mobile station of origin if the radiotelegram originates in a mobile station, with the ship charge due to it for transit.

10 Sec. 9. In principle, the settlement of accounts relating to traffic exchanged between mobile stations is made direct between the organizations controlling the stations, that to which the station of origin is subject being debited by that to which the station of destination is subject.

Sec. 10. (1) The monthly accounts, mentioned in the preceding sections, which serve as a basis for the special accounting in respect of radiotelegrams, are drawn up radiotelegram by radiotelegram with all necessary particulars, within a period of three months, counting from the month to which they relate. This period may exceed three months when exceptional difficulties occur in the transmission of the documents by post between the radioelectric stations and the Administrations to
20 which they are subject.

(2) In the absence of an agreement to the contrary, the monthly accounts serve as a balance account, and their verification, acceptance and settlement must be effected within a period of six months from the date of their despatch, except where abnormal difficulties occur in the transmission of documents in consequence of voyages of very long duration.

(3) When the checking of differences prevents the acceptance of an account, the balance thereof is nevertheless paid within the period of six months mentioned above, and corrections subsequently found necessary are included in a subsequent monthly account. The balances of the accounts which have not been paid within
30 the said period, increased, if necessary, by the period of delay resulting from the abnormal difficulties mentioned above, bear interest at the rate of seven per cent (7%) per annum, from the day following the expiry of the period of six months, increased where necessary as stated above.

(4) The settlement and examination of accounts presented more than two years after the date of handing-in of the radiotelegrams to which the accounts relate, may be refused by the debtor Administration.

Sec. 11. The Governments reserve to themselves the option of making, between themselves and with the private enterprises concerned, special arrangements with a view to the adoption of other provisions respecting accounts.

ARTICLE 33

INTERNATIONAL TECHNICAL CONSULTATIVE COMMITTEE FOR RADIOELECTRIC COMMUNICATIONS

Sec. 1. The International Technical Consultative Committee for Radioelectric Communications established by Article 17 of the Convention, is charged with the task of studying technical and related questions which concern international
10 radiocommunication and which are submitted to it by the participating Administrations or private enterprises. Its function is limited to giving opinions on the questions which it has studied. It transmits these opinions to the International Bureau, with a view to their communication to the Administrations and private enterprises concerned.

Sec. 2. (1) The Committee is composed, for each meeting, of experts from the Administrations and authorized private enterprises working radioelectric stations, which desire to participate in its work and which undertake to contribute, in equal shares, to the general expenses of the meeting in question. The personal expenses of the experts are borne by the Administration or private enterprise which has
20 appointed them.

(2) The experts of such authorized private enterprises participate in the work in a consultative capacity. Nevertheless, when a country is not represented by an Administration, the experts of the authorized private enterprises of that country, as a whole and regardless of their number, exercise a single vote.

Sec. 3. The Administration of the Netherlands is charged with the task of organizing the first meeting of the International Technical Consultative Committee for Radioelectric Communications and of preparing the program of work for this meeting.

Sec. 4. The Administrations which are represented at a meeting of the Com-
30 mittee decide as to the Administration which shall call the succeeding meeting. Questions to be studied by the Committee are sent to the Administration organizing the meeting next to be held and that Administration fixes the date and program of the meeting.

Sec. 5. In principle, the meetings of the International Technical Consultative Committee for Radioelectrical Communications take place every two years.

ARTICLE 34

INTERNATIONAL BUREAU

Sec. 1. (1) The supplementary expenses resulting from the work of the International Bureau of the Telegraph Union in connexion with the radioelectrical services, must not exceed 200,000 francs a year, excluding: (a) the expenses proper to the work of Conferences; (b) the expenses proper to the work of committees regularly appointed when, in accordance with the provisions of the General Regulations or of a decision of a Conference, these expenses are to be borne by all the contracting countries.

10 (2) The sum of 200,000 francs may be modified at a later date with the unanimous consent of the contracting Governments.

Sec. 2. The supreme Administration of the Swiss Confederation is appointed to organize the Division for radioelectric services in the International Bureau of the Telegraph Union mentioned in Article 16 of the Convention; it has the supervision thereof, controls its expenses, advances the necessary funds, and prepares the annual account. This account is communicated to all the other Administrations.

20 Sec. 3. The amounts advanced for the needs of the radioelectric services by the Administration which controls the International Bureau, must be repaid by the debtor Administrations, with the least possible delay, and at the latest, within three months from the date when the account is received. After this period of three months, the amounts due bear interest in favour of the creditor Administration at the rate of seven per cent (7%) per annum, counting from the date of expiry of the period mentioned above.

Sec. 4. (1) For the division of the expenses, the contracting States are divided into six classes, each contributing on the basis of a certain number of units, namely:—

	1st class—25 Units
	2nd “ —20 “
	3rd “ —15 “
30	4th “ —10 “
	5th “ — 5 “
	6th “ — 3 “

(2) The Administrations inform the International Bureau of the class in which they wish their countries to be placed.

(3) The above coefficients are multiplied for each class by the number of States which it contains and the sum of the products thus obtained gives the number by

which the total expenses are to be divided, in order to determine the amount of the unit of expense.

In conformity with the provisions of Article 13 of the Washington Convention, the present General Regulations will come into force on the 1st January, 1929.

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 the United States of America and of which a copy will be delivered to each Government.

Done at Washington, the 25th November, 1927.

10

NOTE

The following appendices have been omitted:

- Appendix 1. List of abbreviations to be used in radioelectric transmissions;
- “ 2. Report of an infringement of the Radiotelegraph Convention or of the Service Regulations;
- “ 3. Service Documents;
- “ 4. Scale used to express strength of signals;
- “ 5. Hours of service for ships in the second class;
- “ 6. International periods of service for ships with less than 3 wireless operators;
- 20 “ 7. Documents with which ship and aircraft stations must be provided;
- “ 8. Procedure for obtaining direction-finding bearings.

No. 5

**Authorization of Canadian Representatives *re* International
Convention, 1927**

PRIVY COUNCIL

CANADA

*CERTIFIED to be a true copy of a Minute of a Meeting of the Committee of the
Privy Council, approved by His Excellency the Governor General on the
11th August, 1927.*

The Committee of the Privy Council have had before them a report, dated 3rd
10 August, 1927, from the Minister of Marine and Fisheries, stating that the third
meeting of the International Radio Conference, to which Canada subscribes, will
be held in Washington on October 4th, 1927.

The last Conference, which was held in 1912, dealt chiefly with international
"ship to shore" communication. Since that date there have been many develop-
ments in radio, and the forthcoming conference will have to deal with many inter-
national problems, such as transocean communication, broadcasting, direction find-
ing, etc., all of which are of considerable importance to Canada.

The Minister recommends that Canada be represented at the forthcoming
Conference, and that the following be selected as its representatives:

20 *Head of Delegation:*

Mr. A. Johnston, Deputy Minister, Department of Marine, Ottawa.

Delegates:

Mr. C. P. Edwards, O.B.E., Director of Radio, Department of Marine,
Ottawa;

Major W. A. Steele, M.C., Royal Canadian Corps of Signallers, Depart-
ment of National Defence, Ottawa;

Mr. Laurent Beaudry, First Secretary, Legation of the Dominion of
Canada, Washington; and

that the following be selected to act as technical advisors to the Canadian dele-
30 gation:—

Mr. Donald Manson, Chief Inspector, Radio Branch, Department of
Marine, Ottawa;

Mr. J. W. Bain, Radio Engineer, Department of Marine, Ottawa;
and the expenses in connection with the Dominion delegation be paid out of
Appropriation No. 500, "International Radio Conference, 1927".

The Committee concur in the foregoing recommendation and submit the same
for approval.

G. G. KEZAR,
Assistant Clerk of the Privy Council.

PRIVY COUNCIL
CANADA

CERTIFIED to be a true copy of a Minute of a Meeting of the Committee of the Privy Council, approved by the Deputy of His Excellency the Governor General on the 7th October, 1927.

The Committee of the Privy Council have had before them a report, dated 6th October, 1927, from the Honourable Ernest Lapointe for the Secretary of State for External Affairs, submitting that by Order in Council dated August 11th, 1927, the Canadian Government appointed the following as its representatives at
10 the Third meeting of the International Radio Conference, which is now being held at Washington:

Head of Delegation:

Mr. A. Johnston, Deputy Minister, Department of Marine, Ottawa.

Delegates:

Mr. C. P. Edwards, O.B.E., Director of Radio, Department of Marine, Ottawa.

Major W. A. Steele, M.C., Royal Canadian Corps of Signallers, Department of National Defence, Ottawa.

20 Mr. Laurent Beaudry, First Secretary, Legation of the Dominion of Canada, Washington.

The present Conference being held with a view to revising the International Radio-Telegraphic Convention of 1912, the Minister recommends that the above Canadian delegation be authorized to sign, on behalf of Canada, any agreement which may be reached at the Conference in the form of a Convention between Governments.

The Committee concur in the foregoing recommendation and submit the same for approval.

E. J. LEMAIRE,
Clerk of the Privy Council.

No. 5a

Ratification of Washington Convention, 1927

WHEREAS a Convention together with General Regulations relating to Radio Telegraphy was signed at Washington on the 25th November, 1927, by the representatives of His Majesty's Government in Canada and of other Governments specified therein, which Convention and General Regulations are word for word as follows:—

HIS MAJESTY'S Government in Canada having considered the aforesaid Convention together with the General Regulations, hereby confirm and ratify the same and undertake faithfully to perform and carry out the stipulations therein contained, in witness whereof this instrument of ratification is signed and sealed by the Secretary of State for External Affairs for Canada.

ERNEST LAPOINTE,

OTTAWA, July 12th, 1928.

For the Secretary of State for External Affairs.

Certified to be a true copy of the original.

O. D. SKELTON,

Under-Secretary of State for External Affairs.

OTTAWA, 3rd March, 1931.

DEPARTMENT OF EXTERNAL AFFAIRS,
CANADA

20
No. 321

OTTAWA, 10 Aug., 1928.

SIR,—With reference to your despatch of July 3rd, 1928, regarding the ratification of the International Radio-Telegraph Convention and regulations appended thereto, I have the honour to inform you that the Canadian Government agrees that the above Convention is a Convention between Governments and that the governmental form, as suggested, appears to be satisfactory in the present instance.

His Majesty's Government in Canada has ratified, in that form, the above Convention by an Order in Council of July 12th, 1928.

30 I have the honour to be, sir,

Your most obedient, humble servant,

O. D. SKELTON,

For the Secretary of State for External Affairs.

Lieutenant-Colonel The Right Honourable L. C. M. S. AMERY,
Secretary of State for Dominion Affairs.

(Telegram)

DEPARTMENT OF EXTERNAL AFFAIRS,

CANADA

*From the Secretary of State for Dominion Affairs to the Secretary of State for
External Affairs, Canada*

Code

Circular B. 69

LONDON, 3rd July, 1928.

Circular B. 69. July 3rd. My despatch 20th April, Dominions Treaty No. 22.
10 His Majesty's Government in Great Britain desire to proceed at an early date to
ratification of the International Radio Telegraph Convention and Regulations
appended thereto. In view of the fact that Convention is a Convention between
Governments it would appear appropriate that ratification should be expressed as
being by Governments, and His Majesty's Government in Great Britain accordingly
proposes to adopt the following form:

20 "WHEREAS a Convention relating to Radio Telegraphy was signed at
Washington on the 25th November, 1927, by the representatives of His
Majesty's Government in Great Britain and of other Governments specified
therein, which the Convention is word for word as follows (here insert text of
Convention) His Majesty's Government in Great Britain having considered
Convention aforesaid hereby confirm and ratify the same and undertake faith-
fully to perform and carry out the stipulations therein contained, in witness
whereof this instrument of ratification is signed and sealed by His Majesty's
Principal Secretary of State for Foreign Affairs".

We should be glad to learn whether His Majesty's Governments in the
Dominion agree that Governmental form should be adopted. If so, it might be
convenient that above form with the necessary adaptation should be used.

SECRETARY OF STATE FOR DOMINION AFFAIRS.

No. 6

**An Agreement Between Canada, United States, Newfoundland,
Cuba and Other North American Nations Relative
to the Assignment of Frequencies on the
North American Continent**

(1) The sovereign right of all nations to the use of every radio channel is recognized.

Nevertheless, until technical development progresses to the stage where radio interference can be eliminated, it is agreed that special administrative arrangements are essential in order to promote standardization and to minimize radio interference.

(2) The Governments agree that each country shall be free to assign any frequency to any radio station within its jurisdiction upon the sole condition that no interference with any service of another country will result therefrom.

(3) It is agreed that each Government shall use Appendix I attached hereto, as a general guide in allocating channels to the various services specified therein.

(4) Channels are divided into two classes (1) common channels which are primarily assigned to particular services in all countries, and (2) general communication channels which are assigned for use in specific areas.

20 (5) With regard to the general communication channels, it is considered that at the present stage of the art, the use of radio channels below 3,500 K/C will not normally cause interference at distances greater than 1,000 miles and such channels may, therefore, be used with freedom from interference by stations separated by such distance. It is further recognized that stations operating on frequencies above 3,500 K/C may become sources of interference at distances in excess of 1,000 miles, particularly at night.

(6) The Governments agree to take advantage of the physical facts just explained, and by suitable geographical distribution of these two classes of channels throughout North America and the West Indies, to make available for general
30 communication services, the total number of channels set forth in Appendix 2 attached hereto.

(7) Each Government shall have the right to assign to stations under its jurisdiction, in the manner it deems best, such general communication channels as are allocated to that Government under this agreement, as set forth in Appendix No. 2. The Governments agree not to assign to stations within their respective jurisdiction

any of the general communication channels allocated to other Governments, unless it can be accomplished without causing interference.

(8) The marine calling frequency of 5,525 K/C shall be used until superseded by an international assignment.

(9) In addition to the frequencies assigned specially for experiments (1,604, 2,398 and 4,596 K/C) the Governments agree that experimentation by particularly qualified experimenters, may be authorized on any other channel provided no interference is caused with established services, as provided in Regulation No. 11 of the International Radio Convention of Washington 1927.

(10) The Governments agree to adopt a radio frequency standard based on the unit of time, and to compare at least once every six months, the actual radio frequency measuring standards.

(11) The Governments agree to require all stations, other than mobile and amateur stations, under their jurisdiction, to tune their transmitters with an accuracy of 0.025 per cent, or better, of their national frequency standard.

(12) The Governments agree to require all stations likely to cause international interference, other than mobile and amateur stations, to maintain their frequency with an accuracy of 0.05 per cent, or better, at all times.

(13) For the purpose of this agreement a channel shall be regarded as a band of frequencies the width of which varies with its position in the range of frequencies under consideration, but which progresses numerically from the lower to the higher frequencies, as shown in the following table:—

Frequency (K/C)	Channel Width (K/C)
1,500–2,198.....	4
2,200–3,313.....	6
3,316–4,400.....	8
4,405–5,490.....	10
5,495–6,000.....	15

(14) The Governments agree to adopt for the present in their national plan of allocation a separation of 0.2 per cent between radio frequency channels; and to permit stations under their respective jurisdiction to occupy the assigned frequency and the adjacent frequencies to the limit permitted by the frequency maintenance tolerances and necessitated by the type of emission the station may be authorized to use. For commercial telephony a band width of six kilocycles shall be permitted. For the present, a 100 kilocycle band width shall be considered standard for television.

(15) The Governments agree to require stations under their jurisdiction to use transmitters which are as free as practicable from all emissions (such as those due to harmonics, decrement, spacing waves, frequency modulation, key clicks, type of

NORTH AMERICAN RADIO CONFERENCE, 1929

APPENDIX No. 1

Allocation of Channels to Services (Arranged in order of Kilocycles)

	(1) Channels	Service	No. of Channels
	1504 to 1600	Maritime Mobile Services (2).....	25
	1600 to 1648	Air Mobile Services (3).....	12
	1648 to 1712	Mobile Services.....	16
	1712 to 2000	Amateurs.....	72
10	2000 to 2200	Experimental Visual Broadcasting.....	50
	2200 to 2296	General Communication Services (4).....	16 (32)
	2296 to 2398	Maritime and Air Mobile Services (3).....	17
	2398 to 2470	Mobile Services.....	12
	2470 to 2506	Air Mobile Services.....	6
	2506 to 2602	Maritime Mobile Services.....	16
	2602 to 2650	Air Mobile Services.....	8
	2650 to 2746	Maritime and Air Mobile Services.....	16
	2746 to 2950	Experimental Visual Broadcasting.....	34
	2950 to 3004	Maritime and Air Mobile Services.....	9
20	3004 to 3058	General Communication Services (4).....	9 (18)
	3058 to 3106	Air Mobile Services.....	8
	3106 to 3148	Maritime Mobile Services.....	7
	3148 to 3412	General Communication Services (4).....	40 (80)
	3412 to 3500	Maritime and Air Mobile Services.....	11
	3500 to 3996	Amateurs.....	62
	3996 to 4100	General Communication Services (4).....	13
	4100 to 4196	Maritime and Air Mobile Services.....	12
	4196 to 4745	General Communication Services (4).....	60
	4745 to 4795	Maritime and Air Mobile Services (3).....	5
30	4795 to 5495	General Communication Services (4).....	70
	5495 to 5690	Maritime and Air Mobile Services.....	13
	5690 to 6000	General Communication Services (4).....	20
		(5) 639 (704)	

Notes

- (1) The last channel in each group is assigned to the service indicated immediately abreast the group except as specially noted to the contrary.
- (2) The channel 1600 Kc/s is assigned to Mobile Services.
- (3) The channels 1604, 2398 and 4795 Kc/s are assigned to Experimental Services.
- (4) For details regarding General Communication Services, see Appendix II.
- 40 (5) Taking into account Articles 5 and 6 of the Agreement, this total is increased by 65.

NORTH AMERICAN RADIO CONFERENCE, 1929

APPENDIX No. 2

*Distribution of General Communication Channels**United States:*

3154	4252	4995
3160	4260	5005
3166	4268	5015
3172	4276	5025
3178	4284	5035
3184	4292	5045
3190	4300	5055
3232	4308	5065
3238	4316	5075
3244	4364	5085
3250	4372	5095
3256	4380	5105
3262	4388	5115
3268	4396	5125
3274	4405	5135
3280	4415	5145
3286	4425	5155
3292	4435	5165
3298	4445	5175
3304	4525	5185
3310	4535	5195
3316	4545	5205
3324	4555	5215
3332	4565	5225
3340	4575	5235
3348	4585	5245
3356	4595	5255
3364	4605	5265
3372	4615	5275
3380	4625	5285
3388	4635	5295
3396	4645	5305
3404	4655	5315
3412	4665	5325
4012	4675	5335
4020	4685	5345
4028	4695	5355
4036	4705	5365
4044	4715	5855
4052	4725	5870
4060	4735	5885
4068	4745	5900
4076	4925	5915
4084	4935	5930
4092	4945	5945
4100	4955	5960
4204	4965	5975
4236	4975	5990
4244	4985	

Canada and Newfoundland:

2206	3214	4475
2212	3220	4485
2218	3226	4495
2224	3232	4815
2230	3238	4825
2236	3244	4835
2242	3250	4845
2248	3256	4855
2254	3262	4865
2260	3268	4875
2266	3274	4885
2272	3280	4895
2278	3286	4905
2284	3292	5385
2290	3298	5395
2296	3304	5405
3010	3310	5415
3016	3316	5425
3022	3324	5435
3028	3332	5445
3034	x 3340	5455
3040	x 3348	5465
3046	x 3356	5475
3052	x 3364	5485
3058	x 3372	5495
x 3154	x 3380	5705
x 3160	x 3388	5720
x 3166	x 3396	5735
x 3172	x 3404	5750
x 3178	x 3412	5765
x 3184	4324	5780
x 3190	4332	5795
3196	4340	5810
3202	4348	
3208	4465	

103

Note.—x Used for Newfoundland.*Cuba:*

2206	2248	3208
2212	3010	4004
2218	3016	4212
2224	3022	4505
2230	3028	5375
2236	3196	5825
2242	3202	

20

Other Nations:

2254	3034	4220
2260	3040	4228
2266	3046	4356
2272	3052	4455
2278	3058	4515
2284	3214	4805
2290	3220	4915
2296	3226	5840

24

SUMMARY

Services	No. of Channels
Maritime Mobile Services exclusively	47
Air Mobile Service exclusively	33
Amateurs	134
Experimental Visual Broadcasting	84
Air and Maritime Mobile Services	81
Experimental	3
Mobile Services	29
General Communication Services	228
Total	639
Grand Total	704

Note.—The grand total is obtained by adding on 65 channels made available through the application of Articles 5 and 6 of the Agreement.

*The Chairman of the Canadian Delegation to the Chairman of the
United States Delegation*

OTTAWA, February 1, 1929.

JUDGE E. O. SYKES,
Federal Radio Commission,
Washington, D.C.

“In accordance with the undertaking given by the Canadian delagation at the closing session of the Conference on Friday last, I now have the honour to advise that the proposals for the distribution of channels as set forth in detail in appendices Numbers One and Two and graphic chart attached to draft of document headed ‘Suggestions for an agreement between United States, Canada, Cuba, Mexico and other North American nations relative to the assignment of frequencies on the North American continent,’ as per copy transmitted to you by Commander Craven, are

approved and accepted by the Canadian delegation. The United States delegation, having already by majority vote approved of these proposals as generally outlined at the final session of the Conference, it is our understanding that there but remains for approval the Articles of Agreement as suggested in draft document in question. As soon as we are advised that this is confirmed by the United States delegation and that these Articles of Agreement are approved and accepted by them, the whole may be considered as approved and accepted by the Canadian authorities."

A. JOHNSTON.

10 *The United States Minister to the Secretary of State for External Affairs,
Canada*

OTTAWA, CANADA, February 26, 1929.

No. 315

SIR,—With regard to the recent short wave length radio conference at Ottawa, I am instructed by my Government to inform you that it approves the recommendations of the delegates at the conference and will announce the agreement effective March 1, 1929.

I avail myself of the occasion to renew to you, Sir, the assurances of my highest consideration.

WILLIAM PHILLIPS.

20 The Right Honourable,
WILLIAM LYON MACKENZIE KING, C.M.G., LL.B., LL.D.,
Secretary of State for External Affairs,
Ottawa.

The Secretary of State for External Affairs, Canada, to the United States Minister

DEPARTMENT OF EXTERNAL AFFAIRS, CANADA

OTTAWA, February 28, 1929.

No. 16

SIR,—I have the honour to acknowledge your Note of February 26, 1929, regarding the recent Short Wave Radio Conference at Ottawa.

30 It is gratifying to the Government of the Dominion of Canada to learn that the Government of the United States approve the recommendations of the delegates at the Conference. The Canadian Government have pleasure in stating that they also accept these recommendations.

It is noted that your Government will announce the agreement effective March 1, 1929. I have the honour to request that you be good enough to inform them that we will accordingly announce the agreement as effective on the same day.

Accept, Sir, the renewed assurances of my highest consideration.

O. D. SKELTON,

For the Secretary of State for External Affairs.

The Hon. WILLIAM PHILLIPS,
Minister of the United States of America,
United States Legation, Ottawa.

10 *The Secretary of State for External Affairs, Canada, to the Prime Minister of Newfoundland, St. John's, Newfoundland*

(Telegram)

OTTAWA, February 28, 1929.

With reference to recent Short Wave Radio Conference at Ottawa the Canadian Government are now informed that the United States Government approve the recommendations of the delegates at Conference. These recommendations have also been accepted by the Canadian Government. It has been arranged between the two Governments to have the agreement announced as effective March 1, 1929.

SECRETARY OF STATE FOR EXTERNAL AFFAIRS.

20 *The Newfoundland Delegate to the Secretary of State for External Affairs, Canada*

(Telegram)

ST. JOHN'S, NEWFOUNDLAND, March 4, 1929.

External,

Ottawa, Ont.

Your cable to Prime Minister reference Radio Conference at Ottawa. Government of Newfoundland have notified Chairman accepting recommendations made by United States and Canadian Government to be effective as from March 1, 1929.

Lemessurier,

NEWFOUNDLAND DELEGATE.

*The Consul General of Cuba to the Under-Secretary of State for External Affairs,
Canada*

No. 40.

OTTAWA, March 14, 1929.

SIR,—I have the honour to inform you that the Secretary of State of the Republic has been notified by the Department of Communications, in charge of our Radio Services, that the agreement relative to the Ottawa Radio Conference is accepted by Cuba.

I have the honour to be,
With the highest consideration, sir,
Your obedient servant,

10

GABRIEL DE LA CAMPA,
Consul General for Cuba.

The Honourable Doctor O. D. SKELTON,
Under-Secretary of State for External Affairs,
Ottawa.

*The Under-Secretary of State for External Affairs, Canada, to the Consul General
of Cuba*

DEPARTMENT OF EXTERNAL AFFAIRS, CANADA

OTTAWA, June 22, 1929.

20 SIR,—With further reference to your Note of the 14th March regarding the Short Wave Radio Conference held at Ottawa in January last, I have the honour to state, for the purpose of completing your records, that the Government of Canada approve the recommendations of the delegates at the Conference and consider the Agreement to be effective as from the 1st March, 1929.

I have the honour to be, sir,
Your obedient Servant,

O. D. SKELTON,
Under-Secretary of State for External Affairs.

GABRIEL DE LA CAMPA, Esquire,
30 Consul General of Cuba,
Ottawa.

The Secretary of State for External Affairs, Canada, to the Colonial Secretary of Newfoundland

DEPARTMENT OF EXTERNAL AFFAIRS, CANADA

No. 10.

OTTAWA, June 22, 1929.

SIR,—With reference to our telegram of the 28th February to your Prime Minister and the telegram of the 4th March from Mr. W. H. Le Messurier regarding the Short Wave Radio Conference held at Ottawa in January last, I have the honour to state, for the purpose of completing your records, that the Government of Canada accept the recommendations of the delegates at the Conference
10 and consider the Agreement to be effective as from the 1st March, 1929.

I should be grateful if you would be good enough to state, for the purpose of completing our records, whether the Government of Newfoundland accept the recommendations of the delegates at the Conference and consider the Agreement to be effective as from the 1st March, 1929.

I have the honour to be, sir,
Your obedient Servant,

O. D. SKELTON,

For the Secretary of State for External Affairs.

The Honourable,
20 The Colonial Secretary of Newfoundland,
St. John's, Newfoundland.

The Colonial Secretary of Newfoundland to the Secretary of State for External Affairs, Canada

DEPARTMENT OF THE COLONIAL SECRETARY, ST. JOHN'S, NEWFOUNDLAND

September 26, 1929.

SIR,—Referring to your letter No. 10 of the 22nd June last regarding the Short Wave Radio Conference held in Ottawa in January last, I have the honour to intimate, for the purpose of completing your records, that the Government of Newfoundland accept the recommendation of the Delegates at the Conference and
30 consider the Agreement to be effective as from the 1st March, 1929.

I have the honour to be, sir,
Your obedient Servant,

A. BAINES,

Colonial Secretary.

The Honourable,
The Secretary of State for External Affairs,
Ottawa.

No. 7

**Informal Arrangement Between Canada and the United States
re Aircraft**

DEPARTMENT OF EXTERNAL AFFAIRS, CANADA

OTTAWA, 19th June, 1930.

No. 71.

SIR,—With reference to my note No. 70 of even date and to previous correspondence regarding the Aviation Radio Conference held in New York on April 10 and 11 last, I have the honour to inform you that the Canadian Government
10 are prepared to accept the recommendations of the Conference and, in developing its radio "aids to air navigation and radio communication facilities with aircraft," will follow the general principle set out in these recommendations.

Accept, Sir, the renewed assurances of my high consideration.

(Sgd.) O. D. SKELTON,

For the Secretary of State for External Affairs.

B. REATH RIGGS, Esquire,

Charge d'Affaires,

Legation of the United States of America,

OTTAWA.

20

LEGATION OF THE UNITED STATES OF AMERICA
CANADA

OTTAWA, August 18, 1930.

No. 804.

SIR,—With reference to the Department of External Affairs' note No. 71 of June 19, 1930, and to previous correspondence regarding the Aviation Radio Conference held in New York on April 10 and 11, 1930, I have the honour, upon instructions from my Government, to advise you that on August 5, 1930, the Federal Radio Commission adopted the recommendations of that Conference and will put them into effect as soon as practicably possible.

30 I avail myself of the occasion to renew to you, Sir, the assurances of my highest consideration.

(Sgd.) B. REATH RIGGS,

Chargé d'Affaires.

The Honourable R. B. BENNETT,

Secretary of State for External Affairs,

Ottawa.

INFORMAL CANADA-UNITED STATES AVIATION RADIO CONFERENCE

The co-ordination of airways communication and radio aids to air navigation in Canada and the United States is desirable and the following principles are proposed as a guide in the operation of these systems.

The Conference recommends that: the two governments study these principles and attempt to apply them to their respective systems, and that by correspondence and future conferences these principles be further developed and closer co-ordination obtained.

It is further recommended that:—

10 1. The International Air Calling Frequency of 333 K/C be not required regionally for aircraft or aeronautical stations in Canada or the United States.

2. It be recognized that a frequency separation of 6 K/C is ordinarily sufficient between stations operating radio range beacon and radio telephone services.

3. A minimum distance of 750 miles between radio beacon stations operating on the same frequency is desirable. It is recommended that this separation be maintained between nations, although in some cases it may be necessary to reduce the separation within the interior of their country.

4. The following frequencies:

20 237
240
248
278 K/C

out of the band 194-284 K/C be reserved regionally for air services.

5. The following frequencies shall remain free from assignments in the United States within 750 miles of Canadian airways radio stations:

248
290
296
326
30 332 K/C

In addition, no further assignments in the United States should be made on the following frequencies within 750 miles of Canadian airways radio stations:

240
314 K/C

6. The following frequencies shall remain free from assignments in Canada within 750 miles of United States airways radio stations:

254	308
260	320
266	338
272	344
284	350
302	

7. The frequency 278 K/C should be reserved primarily for low power air-
10 port use.

8. One frequency, approximately 237 K/C shall be reserved for emergency messages from ground stations to aircraft in cases where such messages might interfere with the regular airways beacon service.

9. The following frequencies should be reserved for Canadian stations operating along the Canadian Transcontinental airways from Halifax to Vancouver:

3492
5630 K/C

The United States authorities will discuss with aviation companies operating between Chicago, Minneapolis, and St. Paul a change of frequencies from those now
20 specified in the U.S. Aviation Plan for the Green Chain to the Red Chain frequencies in order that Canadian planes flying from Winnipeg to Minneapolis and St. Paul will be able to have closer frequency co-ordination.

10. The United States will continue to use 3106 K/C as a national calling frequency and Canada will use the frequency 5630 K/C for the same purpose, since the experience gained to date in the United States and Canada would indicate that the common calling frequency selected in the United States might not be equally suitable in Canada.

No. 8

International Convention for the Safety of Life at Sea

PREAMBLE

The Governments of Germany, the Commonwealth of Australia, Belgium, Canada, Denmark, Spain, the Irish Free State, the United States of America, Finland, France, the United Kingdom of Great Britain and Northern Ireland, India, Italy, Japan, Norway, the Netherlands, Sweden, the Union of Socialist Soviet Republics; being desirous of promoting safety of life at sea by establishing in common agreement uniform principles and rules directed thereto;

10 Considering that this end may best be achieved by the conclusion of a Convention;

Have appointed their Plenipotentiaries, namely:

The Government of Germany:

Dr. Friedrich STHAMER, Ambassador Extraordinary and Plenipotentiary of the German Reich in London.

Mr. Gustav KOENIGS, Ministerialdirigent in the Reichsverkehrsministerium, Geheimer Regierungsrat, Berlin.

Mr. Arthur WERNER, Oberregierungsrat in the Reichsverkehrsministerium, Geheimer Justizrat, Berlin.

20 Mr. Walter LAAS, Professor, Director of the "Germanischer Lloyd" Classification Society, Berlin.

Dr. Otto RIESS, Director ret. of the Reichsschiffsvermessungsamt, Geheimer Regierungsrat, Neubrandenburg.

Mr. Herman GIESS, Ministerialrat in the Reichspotministerium, Berlin.

Vice-Admiral Hugo DOMINIK, President of the "Deutsche Seewarte," Hamburg.

The Government of the Commonwealth of Australia:

Captain Henry James FEAKES, Royal Australian Navy, Commonwealth Naval Representative in London.

30 Lieut.-Commander Thomas FREE, Royal Naval Reserve (Retired).

Captain J. K. DAVIS, Commonwealth Director of Navigation.

The Government of Belgium:

BARON DE GERLACHE DE GOMERY, Director-General of the Marine Department.

Mr. Gustave DE WINNE, Ingénieur en Chef, Director of the Marine Department.

Mr. Georges GOOR, Adviser to the Marine Department.

The Government of Canada:

Mr. Alexander JOHNSTON, Deputy Minister of Marine.

Mr. Lucien PACAUD, Secretary in the Office of the Canadian High Commissioner in London.

The Government of Denmark:

Mr. Emil KROGH, Assistant-Secretary in the Marine Department, Ministry of Industry, Commerce and Shipping.

Mr. V. TOPSÖE-JENSEN, Judge of the Supreme Court of Appeal.

Captain V. LORCK, Chief Examiner of Masters and Mates.

10 Mr. J. A. KÖRBING, Technical Managing Director of the United Steam Ship Company, Copenhagen.

Mr. Aage H. LARSEN, Engineer in Chief of the Ministry of Industry, Commerce and Shipping.

Mr. Arnold POULSEN, Engineer Commissioner to the Ministry of Industry, Commerce and Shipping.

The Government of Spain:

Rear-Admiral Don Francisco Javier de SALAS y Gonzalez, Head of the Naval Commission in Europe.

The Government of the Irish Free State:

20 Mr. J. W. DULANTY, Commissioner for Trade for the Irish Free State in Great Britain.

Mr. E. C. FOSTER, Chief Surveyor in the Marine Branch, Department of Industry and Commerce.

The Government of the United States of America:

The Honourable Wallace H. WHITE, Junior, Member of Congress, Chairman of the Committee on Merchant Marine and Fisheries.

Mr. Arthur J. TYRER, Commissioner of Navigation, Department of Commerce.

Mr. Charles M. BARNES, Chief of the Treaty Division, Department of State.

30 Rear-Admiral George H. ROCK, Construction Corps, United States Navy, Assistant Chief of the Bureau of Construction and Repair, Navy Department.

Captain Clarence S. KEMPF, United States Navy, Hydrographer, Navy Department.

Mr. Dickerson N. HOOVER, Supervising Inspector-General of the Steamboat Inspection Service, Department of Commerce.

Mr. William D. TERRELL, Chief of the Radio Division, Department of Commerce.

Rear-Admiral John G. TAWRESEY, Construction Corps, United States Navy (Retired), United States Shipping Board.

The Government of the United States of America—Concluded

Mr. Herbert B. WALKER, President of the American Steamship Owners' Association.

Mr. Henry G. SMITH, President of the National Council of American Shipbuilders.

Captain Charles A. McALLISTER, President of the American Bureau of Shipping.

The Government of Finland:

Baron Gustaf WREDE, President of the Shipping Board.

10 Captain Väinö BERGMAN, Inspector of Shipping.

Consul Karl KURTEN, Manager of the Finnish Shipowners' Association.

The Government of France:

Mr. RIO, Senator, and former Minister.

Captain HAARBLEICHER, Naval Construction Corps, Director of Mercantile Shipping Service, Department of Public Works.

Commander MARIE, Naval Construction Corps, Direction of Mercantile Shipping.

Captain THOUROUDE, Naval Attaché to the French Embassy in London.

The Government of the United Kingdom of Great Britain and Northern Ireland:

20 Sir Herbert W. RICHMOND, Vice-Admiral, Royal Navy.

Sir Westcott ABELL, Professor of Naval Architecture, Armstrong College, Newcastle-on-Tyne.

Mr. A. L. AYRE, Vice-President of the Shipbuilding Employers' Federation.

Captain F. W. BATE, Professional Officer, Mercantile Marine Department, Board of Trade.

Mr. C. H. BOYD, Mercantile Marine Department, Board of Trade.

Sir William C. CURRIE, President of the Chamber of Shipping of the United Kingdom.

Mr. A. J. DANIEL, Principal Ship Surveyor, Board of Trade.

30 Sir Norman HILL, Chairman of the Merchant Shipping Advisory Committee.

Sir Charles HIPWOOD, Principal Assistant Secretary, Mercantile Marine Department, Board of Trade.

Captain A. R. H. MORRELL, Trinity House.

The Government of India:

Sir Geoffrey L. CORBETT, Commerce Department, Government of India.

Captain E. V. WHISH, Port Officer, Bombay.

Mr. M. A. MASTER, General Manager of the Scindia Steam Navigation Company.

The Government of Italy:

Lieut.-General of Port G. INGIANNI, General Director of the Mercantile Marine.

10 Vice-Admiral A. ALESSIO, Chief of the Technical Inspectorate of the Mercantile Marine.

Count D. ROGERI DI VILLANOVA, Counsellor to the Italian Embassy in London.

Dr. T. C. GIANNINI, Counsellor of Emigration.

Major-General of Port F. MARENA, Vice-Inspector of Harbour Master Offices.

Engineer-General E. FERRETTI, Chief of the Technical Office of the Italian Naval and Aeronautical Register.

Mr. G. GNEME, Chief of the Telegraph Service of the General Direction of Postal and Telegraphic Services.

20 Commander L. BIANCHERI, Royal Italian Navy.

The Government of Japan:

Mr. Yukio YAMAMOTO, Inspector-General of the Mercantile Marine Bureau, Expert in the Department of Communications.

Captain Shichihei OTA, Imperial Japanese Navy.

Mr. Itaro ISHII, First Class Secretary of Embassy.

The Government of Norway:

Mr. B. VOGT, Norwegian Minister in London.

Mr. L. T. HANSEN, Director of the Department of Shipping, Ministry of Commerce and Navigation.

30 Mr. J. SCHÖNHEYDER, Surveyor-in-Chief of the Ship and Engineer Division, Ministry of Commerce and Navigation.

Mr. Arth H. MATHIESEN, Vice-President of the Norwegian Shipowners' Association.

Captain N. MARSTRANDER, Chairman of the Board of the Norwegian Masters' Association.

Mr. A. BIRKELAND, Manager of the Norwegian Seamen's and Firemen's Union.

The Government of the Netherlands:

- Vice-Admiral C. FOCK, Inspector-General of Navigation.
 Mr. C. H. de GOEJE, Ex-Inspector-General of Navigation, Netherland East Indies.
 Mr. A. van DRIEL, Adviser on Naval Architecture, Shipping Inspection Service.
 Mr. J. A. BLAND van den BERG, Inspector of Coastal and Ships' Radiotelegraphy.
 Mr. Phs. van OMMEREN, Junior, Chairman of Phs. van Ommeren, Ltd.
 10 Mr. H. G. J. UILKENS, Ex-Commodore of the Netherland Steamship Company.

The Government of Sweden:

- Baron PALMSTIERNA, Swedish Minister in London.
 Mr. Nils Gustaf NILSSON, Assistant Under-Secretary in the Board of Trade.
 Captain Erik Axel Fredrik EGGERT, Maritime Expert to the Social Board.

The Government of the Union of Socialist Soviet Republics:

- Mr. Jan. Lvovitch ARENS, Counsellor to the U.S.S.R. Embassy in Paris.
 Captain Karl Pavlovitch EGGI, Commander of the Icebreaker *Lenin*, Soviet Merchant Fleet (Sovtorgflot).
 20 Who, having communicated their full powers, found in good and due form, have agreed as follows:

CHAPTER I.—PRELIMINARY

ARTICLE 1

The Contracting Governments undertake to give effect to the provisions of the present Convention for the purpose of promoting safety of life at sea, to promulgate all regulations and to take all other steps which may be necessary to give the present Convention full and complete effect.

- The provisions of the present Convention are completed by Regulations contained in Annex I, which have the same force and take effect at the same time
 30 as the present Convention. Every reference to the present Convention implies at the same time a reference to the Regulations annexed thereto.

ARTICLE 2

Applications and Definitions

1. The provisions of the present Convention shall apply to ships belonging to countries the Governments of which are Contracting Governments, and to ships belonging to territories to which the present Convention is applied under Article 62, as follows:

Chapter II.—(*Construction*) to passenger ships (mechanically propelled) on international voyages.

10 Chapter III.—(*Life-saving Appliances*) to passenger ships (mechanically propelled) on international voyages.

Chapter IV.—(*Radiotelegraphy*) to all ships engaged on international voyages except cargo ships of less than 1,600 tons gross tonnage.

Chapter V.—(*Safety of Navigation*) to all ships on all voyages.

Chapter VI.—(*Certificates*) to all the ships to which Chapters II, III and IV apply.

2. The classes of ships to which each Chapter applies are more precisely defined, and the extent of the application is shown, in each Chapter.

3. In the present Convention, unless expressly provided otherwise—

- 20 (a) a ship is regarded as belonging to a country if it is registered at a port of that country;
- (b) the expression "Administration" means the Government of the country in which the ship is registered;
- (c) an international voyage is a voyage from a country to which the present Convention applies to a port outside such country, or conversely; and for this purpose every colony, overseas territory, protectorate or territory under suzerainty or mandate is regarded as a separate country;
- (d) a ship is a passenger ship if it carries more than 12 passengers;
- (e) the expression "Regulations" means the Regulations contained in Annex I.

30 4. The present Convention, unless expressly provided otherwise, does not apply to ships of war.

ARTICLE 3

Cases of Force Majeure

No ship, which is not subject to the provisions of the present Convention at the time of its departure on any voyage, shall become subject to the provisions of the present Convention on account of any deviation from its intended voyage due to stress of weather or any other cause of *force majeure*.

Persons who are on board a ship by reason of *force majeure* or in consequence of the obligation laid upon the master to carry shipwrecked or other persons shall not be taken into account for the purpose of ascertaining the application to a ship of any provisions of the present Convention.

* * * * *

CHAPTER IV—RADIOTELEGRAPHY

ARTICLE 26

Application and Definition

1. This Chapter applies to all ships engaged on international voyages except cargo ships of less than 1,600 tons gross tonnage.
- 10 2. For the purposes of this Chapter a cargo ship means any ship not being a passenger ship.

ARTICLE 27

Fitting of Radio Installation

1. All ships to which this Chapter applies shall, unless exempted under Article 28, be fitted with a radiotelegraph installation complying with the provisions of Article 31, as follows:—
 - (a) All passenger ships, irrespective of size.
 - (b) All cargo ships of 1,600 tons gross tonnage and upwards.
2. Each Administration may delay the application of the provisions of para-
20 graph 1 (b) to cargo ships belonging to its country of less than 2,000 tons gross tonnage for a period not exceeding five years from the date of the coming into force of the present Convention.

ARTICLE 28

Exemptions from the Requirements of Article 27

1. Each Administration may, if it considers that the route and the conditions of the voyage are such as to render a radiotelegraph installation unreasonable or unnecessary, exempt ships belonging to its country from the requirements of Article 27 as follows:—
 - I.—*Passenger ships*
 - 30 (a) Individual passenger ships or classes of passenger ships which, in the course of their voyage, do not go more than—
 - (i) 20 miles from the nearest land;
 - or*
 - (ii) 200 miles in the open sea between two consecutive ports.
 - (b) Passenger ships which make voyages entirely within the restricted areas specified in the Annex to this Article.

II.—*Cargo Ships*

Individual cargo ships or classes of cargo ships which, in the course of their voyage, do not go more than 150 miles from the nearest land.

2. Each Administration may, in addition, exempt ships belonging to its country of the following classes:—

I. Barges in tow and existing sailing ships.

An existing sailing ship is one the keel of which is laid before the 1st July, 1931.

10 II. Ships of primitive build, such as dhows, junks, etc., if it is practically impossible to fit them with a radiotelegraph installation.

III. Ships which are not normally engaged on international voyages, but which in exceptional circumstances are required to undertake a single voyage of that kind.

Annex to Article 28

1. The Baltic Sea and approaches thereto East of a line drawn from Utsire (Norway) in the North to Texel (Netherlands) in the South, outside the territorial jurisdiction of the Union of Socialist Soviet Republics.

2. The portions of the Gulf of Tartary and the Sea of Okhotsk covered in voyages between ports in Hokkaido and ports in Japanese Sakhalin.

20 3. The Chosen (Tyosen) Strait between a line in the North drawn from Kawajiri Misaki (Cape Natsungu) to Fusan, and a line in the South drawn from Nagasaki to Giffard Island (off the South-West point of Quelpart Island) and thence to Tin To (Amherst Island).

4. The Yellow Sea North of Parallel 37° North.

5. The Formosa Strait between a line in the North drawn from Fuki Kaku (Syauki Point) to Foochow and a line in the South drawn from South Cape (the South point of Formosa) to Hong Kong.

6. The area within the following limits:—

30 Parallel 10° N. from long. 94° E. to the coast of Asia, coast of Asia to Saigon (Cape Tiwan), straight lines between Cape Tiwan, lat. 4° 30' N. long. 110° E., south point of Palawan Island, Palmas (Miangas) Island, lat. 0° long. 140° E., lat. 0° long. 148° E., lat. 10° S. long. 148° E., Cape York, north coast of Australia from Cape York to Port Darwin (Cape Charles), straight lines between Cape Charles, Ashmore Reef (East Island), lat. 10° S. long. 109° E., Christmas Island, lat. 2° N. long. 94° E., lat. 10° N. long. 94° E., outside the territorial jurisdiction of Australia and of the United States of America.

7. The Caribbean Sea, outside the territorial jurisdiction of the United States of America, in relation to voyages made by sailing ships only.

8. The area of the South Pacific Ocean bounded by the Equator, Meridian 130° W., Parallel 34° S., and the coast of Australia, outside the territorial jurisdiction of Australia.

9. The Tong King Gulf and portions of the China Sea lying to the West of a line drawn from Hong Kong to Lat. 17° N. Long. 110° E., thence due South to Latitude 10° N., and thence West to Saigon.

10. The portions of the Indian Ocean covered in voyages between ports in Madagascar, Reunion and the Mauritius Islands.

11. The portions of the North Atlantic Ocean and Mediterranean Sea covered in voyages between Casablanca (Morocco) and Oran (Algeria) and intermediate ports.

ARTICLE 29

Watches

1. *Passenger Ships*

Each passenger ship which, in accordance with Article 27, is required to be fitted with a radiotelegraph installation, shall, for safety purposes, carry a qualified operator, and, if not fitted with an auto-alarm, shall, whilst at sea, keep watches by means of a qualified operator or a certified watcher, as under:—

- (a) All passenger ships under 3,000 tons gross tonnage, as determined by the Administration concerned;
- (b) All passenger ships of 3,000 tons gross tonnage and over, continuous watch.

Each Administration is authorized to exempt passenger ships belonging to its country from 3,000 tons to 5,500 tons gross tonnage, both included, from the requirement of a continuous watch for a period not exceeding one year from the date of the coming into force of the present Convention, provided that during the period of such exemption they shall maintain a watch of at least 8 hours per day.

30 2. *Cargo Ships*

Each cargo ship which, in accordance with Article 27, is required to be fitted with a radiotelegraph installation, shall, for safety purposes, carry a qualified operator, and, if not fitted with an auto-alarm, shall, whilst at sea, keep watches by means of a qualified operator or a certified watcher, as under:—

- (a) All cargo ships under 3,000 tons gross tonnage, as determined by the Administration concerned;

(b) Cargo ships from 3,000 to 5,500 tons gross tonnage, both included, at least 8 hours' watch per day;

(c) Cargo ships over 5,500 tons gross tonnage, continuous watch.

Each Administration is authorized to exempt ships belonging to its country included in (c) above from the requirement of a continuous watch for a period not exceeding one year from the date of the coming into force of the present Convention, provided that during the period of such exemption they shall maintain a watch of at least 8 hours per day.

Each Administration is also authorized to exempt ships belonging to its country 10 from 5,500 tons to 8,000 tons gross tonnage from the requirement of a continuous watch for a further period of one year, provided that during this further period of exemption they shall maintain a watch of at least 16 hours per day.

3. On all ships fitted with an auto-alarm this auto-alarm shall, whilst the ship is at sea, always be in operation when the operator or watcher is not on watch.

On ships for which the hours of watch are to be determined by the Administration concerned, such watch should be maintained preferably at hours prescribed for radiotelegraph service by the International Radiotelegraph Convention in force.

On ships which are required to keep 8 hours' or 16 hours' watch per day, such watch shall be maintained at the hours prescribed for radiotelegraph service by the 20 International Radiotelegraph Convention in force.

4. By *auto-alarm* is meant an automatic alarm receiver which complies with the requirements of Article 19, § 21, of the General Regulations annexed to the International Radiotelegraph Convention, 1927.

5. By *qualified operator* is meant a person holding a certificate complying with the provisions of the General Regulations annexed to the International Radiotelegraph Convention in force.

6. By *certified watcher* is meant any person holding a watcher's certificate issued under the authority of the Administration.

ARTICLE 30

Watchers

30

1. A watcher's certificate shall not be granted by a Contracting Government unless the applicant proves that he is capable—

(a) of receiving and understanding the alarm, distress, safety and urgency signals when these signals occur among a series of other signals;

(b) of correct reception by ear of code groups (mixed letters, figures and punctuation marks) at a speed of sixteen groups per minute, each group

being composed of five characters and each figure or punctuation mark counting as two characters;

(c) of regulating the receivers used in the ship's radiotelegraph installation.

2. The Contracting Governments undertake to take steps to ensure that certified watchers observe the secrecy of correspondence.

ARTICLE 31

Technical Requirements

The radiotelegraph installations required by Article 27 above and the direction-finding apparatus required by Article 47 shall comply with the following requirements:—

1. The ship's station must be placed in accordance with the detailed Regulations of the Government of the country to which the ship belongs, in the upper part of the ship in a position of the greatest possible safety, as high as practicable above the deepest load water line.

2. There shall be provided between the bridge of the ship and the wireless telegraph room, means of communication either by voice pipe or by telephone or in some other manner equally efficient.

3. A reliable clock with a seconds hand must be provided in the wireless telegraph room.

20 4. A reliable emergency light must be provided in the wireless telegraph room.

5. The installation shall comprise a main installation and an emergency (reserve) installation. If, however, the main installation complies with all the requirements of an emergency (reserve) installation the latter is not then obligatory.

6. The main and emergency (reserve) installations must be capable of transmitting and receiving on the frequencies (wave lengths) and types of waves assigned by the International Radiotelegraph Convention in force for the purpose of distress and safety of navigation to ships compulsorily fitted with radiotelegraph installations in accordance with the present Convention.

7. The main and emergency (reserve) transmitters shall have a note frequency 30 of at least 100.

8. The main transmitter shall have a *normal range* of 100 nautical miles, that is to say, it must be capable of transmitting clearly perceptible signals from ship to ship over a range of at least 100 nautical miles by day under normal conditions

and circumstances, the receiver being assumed to be one employing a rectifier of the crystal type without amplification.*

9. Sufficient power must be available in a ship station at all times to operate the main radiotelegraph installation efficiently under normal conditions over the above range.

10. All parts of the emergency (reserve) installation shall be placed in the upper part of the ship, in a position of the greatest possible safety, as high above the deepest load water line as practicable. The emergency (reserve) installation must be provided with a source of energy independent of the propelling power of the ship and of the main electricity system and must be capable of being put into operation rapidly and of working for at least six continuous hours.

For the emergency (reserve) installation, the normal range as defined in paragraph 8 above must be at least 80 nautical miles for ships required to maintain a continuous watch and at least 50 nautical miles for all other ships.

11. The receiving installation must permit of the reception of such of the waves used for the transmission of time signals and meteorological messages as may be considered necessary by the Administration.

12. The receiver must be so arranged as to be capable of maintaining reception by means of a rectifier of the crystal type.

20 13. In ships in which watch is kept by means of an automatic alarm receiver a means of giving audible warning shall be provided in the wireless telegraph room, in the wireless operator's cabin, and on the bridge, which shall operate continuously after the receiver has been operated by the alarm signal or distress call until stopped. Only one switch for stopping the warning shall be provided and this shall be situated in the wireless telegraph room.

14. In such ships the wireless operator, when going off watch, shall connect the automatic alarm receiver to the aerial and test its efficiency. He shall report to the master or the officer on watch on the bridge whether it is in working order.

30 15. Whilst the ship is at sea the emergency source of power shall be maintained at its full efficiency and the automatic alarm receiver shall be tested at least once every 24 hours. A statement that both these requirements have been fulfilled must be inserted in the ship's official log daily.

* Unless a more precise and practical method is available to determine the range of transmitters it is recommended that, as a guide, the following relations between the range on nautical miles (from ship to ship under normal conditions in daytime) and the power of the ship transmitter in metre ampères for 500 kilocycles per second (600 m.) be used:—

100 nautical miles	60 M A
80 nautical miles	45 M A
50 nautical miles	25 M A

M being the actual height in metres of the aerial from its highest point to the load line.

A being the current in ampères measured at the base of the aerial in case of B, or fully modulated A 2, transmitters.

16. A wireless log shall be carried by every ship compulsorily equipped with wireless transmitting apparatus. This document shall be kept in the wireless telegraph room, and in it shall be inserted the names of the operators and watchers as well as all incidents and occurrences connected with the wireless service which may appear to be of importance to safety of life at sea, and in particular all distress messages and distress traffic in full.

17. The direction-finding apparatus required by Article 47 shall be efficient and capable of receiving clearly perceptible signals and of taking bearings from which the true bearing and direction may be determined. It shall be capable of
10 receiving signals on the frequencies prescribed for distress, direction-finding and wireless telegraph beacons by the International Radiotelegraph Convention in force.

Efficient communication shall be provided between the apparatus and the bridge.

ARTICLE 32

Competence

The matters governed by the International Radiotelegraph Convention, Washington, 1927, and the Regulations annexed thereto remain, and will continue, subject to the provisions:—

(1) Of that Convention and of the Regulations annexed thereto, and of any
20 Convention and Regulations which may in the future be substituted therefor;

(2) Of the present Convention in regard to all the points in which it supplements the aforementioned documents.

CHAPTER VIII—FINAL PROVISIONS

ARTICLE 62

Application to Colonies, Etc.

1. A Contracting Government may, at the time of signature, ratification, accession or thereafter, by a declaration in writing addressed to the Government of the United Kingdom of Great Britain and Northern Ireland, declare its desire that the present Convention shall apply to all or any of its colonies, overseas
30 territories, protectorates or territories under suzerainty or mandate, and the present Convention shall apply to all territories named in such declaration, two months after the date of the receipt thereof, but failing such declaration, the present Convention will not apply to any such territories.

2. A Contracting Government may at any time by a notification in writing addressed to the Government of the United Kingdom of Great Britain and Northern Ireland express its desire that the present Convention shall cease to apply to all or any of its colonies, overseas territories, protectorates or territories under suzerainty or mandate to which the present Convention shall have, under the provisions of the preceding paragraph, been applicable for a period of not less than five years, and in such case the present Convention shall cease to apply one year after the date of the receipt of such notification by the Government of the United Kingdom of Great Britain and Northern Ireland to all territories mentioned therein.

10 3. The Government of the United Kingdom of Great Britain and Northern Ireland shall inform all the other Contracting Governments of the application of the present Convention to any colony, overseas territory, protectorate or territory under suzerainty or mandate under the provisions of paragraph 1 of this Article, and of the cessation of any such application under the provisions paragraph 2, stating in each case the date from which the present Convention has become or will cease to be applicable.

ARTICLE 63

Authentic Texts. Ratification

The present Convention of which both the English and French texts shall be 20 authentic shall bear this day's date.

The present Convention shall be ratified.

The instruments of ratification shall be deposited in the archives of the Government of the United Kingdom of Great Britain and Northern Ireland, which will notify all the other signatory or acceding Governments of all ratifications deposited and the date of their deposit.

ARTICLE 64

Accession

A Government (other than the Government of a territory to which Article 62 applies) on behalf of which the present Convention has not been signed shall 30 be allowed to accede thereto at any time after the Convention has come into force. Accessions may be effected by means of notifications in writing addressed to the Government of the United Kingdom of Great Britain and Northern Ireland, and shall take effect three months after their receipt.

The Government of the United Kingdom of Great Britain and Northern Ireland shall inform all signatory and acceding Governments of all accessions received and of the date of their receipt.

A Government which intends to accede to the present Convention but desires to add an area to those specified in the Annex to Article 28 shall, before notifying its accession, inform the Government of the United Kingdom of Great Britain and Northern Ireland of its desire for communication to all the other Contracting Governments. If all the Contracting Governments signify their assent thereto, the area shall be added to those mentioned in the aforesaid Annex when such Government notifies its accession.

ARTICLE 65

Date of coming in Force

- 10 The present Convention shall come into force on the 1st July, 1931, as between the Governments which have deposited their ratifications by that date, and provided that at least five ratifications have been deposited with the Government of the United Kingdom of Great Britain and Northern Ireland. Should five ratifications not have been deposited on that date, the present Convention shall come into force three months after the date on which the fifth ratification is deposited. Ratifications deposited after the date on which the present Convention has come into force shall take effect three months after the date of their deposit.

ARTICLE 66

Denunciation

- 20 The present Convention may be denounced on behalf of any Contracting Government at any time after the expiration of five years from the date on which the Convention comes into force in so far as that Government is concerned. Denunciation shall be effected by a notification in writing addressed to the Government of the United Kingdom of Great Britain and Northern Ireland, which will notify all the other Contracting Governments of all denunciations received and of the date of their receipt.

A denunciation shall take effect twelve months after the date on which notification thereof is received by the Government of the United Kingdom of Great Britain and Northern Ireland.

In faith whereof, the Plenipotentiaries have signed hereafter.

Done at London this thirty-first day of May, 1929, in a single copy, which shall remain deposited in the archives of the Government of the United Kingdom of Great Britain and Northern Ireland, which shall transmit certified true copies thereof to all signatory
10 Governments.

En foi de quoi, les Plenipotentiaires ont apposé ci-dessous leur signature.

Fait à Londres ce trente et unième jour du mois de mai 1929, en un seul exemplaire qui doit être déposé dans les Archives du Gouvernement du Royaume-Uni de la Grande-Bretagne et de l'Irlande du Nord, lequel doit en transmettre des copies certifiées conformes à tous les Gouvernements signataires.

STHAMER
GUSTAV KOENIGS
ARTHUR WERNER
WALTER LAAS
OTTO RIESS
HERMANN GIESS
HUGO DOMINIK

HENRY JAMES FEAKES
THOMAS FREE

20

A. DE GERLACHE DE GOMERY
G. DE WINNE

A. JOHNSTON
LUCIEN PACAUD

EMIL KROGH
V. LORCK

JAVIER de SALAS

JOHN WHELAN DULANTY
E. C. FOSTER

30

WALLACE H. WHITE
ARTHUR J. TYRER
CHARLES M. BARNES
GEO. H. ROCK

CLARENCE S. KEMPF
 DICKERSON N. HOOVER
 W. D. TERRELL
 JOHN G. TAWRESEY
 HERBERT B. WALKER
 CHARLES A. McALLISTER

GUSTAF WREDE
 V. BERGMAN
 KARL KURTEN

10

RIO
 A. HAARBLEICHER
 JEAN MARIE
 F. THOUROUDE
 H. W. RICHMOND
 WESTCOTT ABELL
 A. L. AYRE
 F. W. BATE
 C. H. BOYD
 WILLIAM C. CURRIE

20

A. J. DANIEL
 NORMAN HILL
 C. HIPWOOD
 A. MORRELL

 G. L. CORBETT
 E. V. WHISH
 MANSUKHLAL ATMARAM MASTER

30

GIULIO INGIANNI
 ALBERTO ALESSIO
 DELFINO ROGERI DI VILLANOVA
 TORQUATO C. GIANNINI
 FRANCESCO MARENA
 ERNESTO FERRETTI
 G. GNEME
 LUIGI BIANCHERI

YUKIO YAMAMOTO
SHICHIHEI OTA
ITARO ISHII

B. VOGT
L. T. HANSEN
ARTH H. MATHIESEN

C. FOCK
C. H. DE GOEJE
A. VAN DRIEL
J. A. BLAND-v-D-BERG
PHS. VAN OMMEREN
H. G. J. UILKENS

ERIK PALMSTIERNA
NILS GUSTAF NILSSON

J. ARENS
K. EGGI

No. 9

**Authorization of Canadian Representatives re Convention for
Safety of Life at Sea**

PRIVY COUNCIL

CANADA

CERTIFIED to be a true copy of a Minute of a Meeting of the Committee of the Privy Council, approved by the Deputy of His Excellency the Governor General on the 3rd April, 1929.

The Committee of the Privy Council have had before them a Report, dated 10 27th March, 1929, from the Minister of Marine and Fisheries, submitting:—

That by Order in Council (P.C. 492) of the 22nd March, 1929, provision was made *inter alia* for the appointment of Laurent Beaudry, Counsellor of the Department of External Affairs, as a delegate representing the Department of External Affairs at the Safety of Life at Sea Conference which opens in London on April 16th, 1929;

That the Department of External Affairs now represents that it will be inexpedient for Mr. Beaudry to attend the Conference and recommends that Mr. Lucien Pacaud, Secretary to the High Commissioner for Canada in London, be appointed in Mr. Beaudry's stead.

20 The Minister, concurring, recommends that the Order in Council of the 22nd March, 1929 (P.C. 492) be amended in the sense of the foregoing.

The Minister further recommends that Mr. J. W. Bain, engineer of the Radio branch of the Department be appointed one of the technical advisors to the delegation.

The Committee concur in the foregoing recommendations and submit the same for approval.

G. G. KEZAR,

Assistant Clerk of the Privy Council.

The Right Honourable

The Secretary of State

30 for External Affairs.

DEPARTMENT OF EXTERNAL AFFAIRS, CANADA

OTTAWA, 5th April, 1929.

SIR,

I have to inform you that you have been appointed principal delegate of His Majesty's Government in Canada to the International Conference relating to safety of life at sea to be held in London this April.

2. Mr. Lucien Pacaud, Secretary in the Office of the Canadian High Commissioner in London will accompany you in the capacity of delegate of His Majesty's Government in Canada.

3. It is as delegates of His Majesty's Government in Canada that you and the above mentioned officer are hereby authorized to sign any agreement which may be reached at the Safety of Life at Sea Conference in the form of a Convention between Governments.

4. The following persons will be attached to the Canadian delegation as technical advisers:

10 Lieutenant-Commander C. P. Edwards, Director of Radio, Department of Marine.

Frank McDonnell, Chairman, Board of Steamship Inspection, Department of Marine.

Captain L. G. Dixon, Marine Superintendent.

J. W. Bain, Engineer, Radio Branch, Department of Marine.

Captain J. Gillies, Representative in London of the Canadian Pacific Steamships, Limited.

Captain A. S. M. Nicholls, Representative in London of the Canadian National Steamships Company.

20 I have the honour, etc.,

W. L. MACKENZIE KING,

Secretary of State for External Affairs.

ALEXANDER JOHNSTON, Esquire,
Deputy Minister,
Department of Marine,
OTTAWA.

DEPARTMENT OF EXTERNAL AFFAIRS, CANADA

PRIVY COUNCIL
CANADA

30 CERTIFIED to be a true copy of a Minute of a Meeting of the Committee of the Privy Council, approved by His Excellency the Governor General on the 22nd March, 1929.

The Committee of the Privy Council have had before them a report dated 18th March, 1929, from the Minister of Marine and Fisheries, submitting:

1. That as the result of an invitation extended by His Majesty's Government of Great Britain to the Governments of all the Maritime Nations of the world, a diplomatic conference to consider matters relating to Safety of Life at Sea and to revise

the Convention of 1914 concluded in that behalf will assemble in London on April 16th, 1929;

2. That the Canadian Government, as one of the parties to the said Convention of 1914, joined in the recommendation for the holding of this conference; and

3. That it is desirable in the interests of those who are engaged in shipping in Canada as well as in the interests of the citizens of Canada who travel by sea, that the Government of Canada should be represented at the forthcoming Conference;

The Minister therefore recommends that the following persons be appointed as delegates to represent the Government of Canada at the aforesaid Conference with 10 powers to sign any Convention that may be agreed upon by the representatives of the Governments that will be represented thereat:

Alexander Johnston, Deputy Minister of Marine, representing the Department of Marine and Fisheries—Head of the Delegation;

Laurent Beaudry, Counsellor of the Department of External Affairs, representing the Department of External Affairs.

The Minister further recommends the appointment of the following persons as technical advisers to the delegation:—

Lieut. Commander C. P. Edwards, Director of Radio.

Frank McDonnell, Chairman, Board of Steamship Inspection.

20 Captain L. G. Dixon, Marine Superintendent.

Captain J. Gillies, Representative in London of the Canadian Pacific Steamships, Limited.

Captain A. S. M. Nicholls, Representative in London of the Canadian National Steamships Company.

The Committee concur in the foregoing and submit the same for Your Excellency's approval.

E. J. LEMAIRE,

Clerk of the Privy Council.

The Right Honourable
30 The Secretary of State
for External Affairs.

No. 10

Imperial Conference, 1930

(A) REPORT ON EMPIRE BROADCASTING

1. The Committee has examined the question of establishing an Empire broadcasting service and has had under consideration a general proposal introduced by the New Zealand representative, as well as a detailed scheme submitted by the British Broadcasting Corporation. This Corporation has for some time past conducted an experimental long distance service from a temporary station and has now offered to erect a more powerful station in the United Kingdom and to provide a
10 permanent service including three news bulletins daily, in addition to entertainment items and special events. The Corporation would make no charge for any part of any United Kingdom program when used for the Empire service; but it has asked for a payment of £42,000 a year for five years to cover its estimated out-of-pocket expenditure on the service, including interest on and amortisation of capital. Details of the scheme have been submitted to us and are reproduced in Annexes A, B and C to this Report.

2. The scheme presents certain difficulties both technical and financial. Reception in some overseas countries would not be easy; and if the service is to be of real use in the Dominions and India it would be necessary to arrange for the pro-
20 grams—or portions of them—to be received and rebroadcast by the oversea broadcasting organizations. On the financial side, the opinion was generally expressed that the cost should in equity be borne by the listener rather than by the taxpayer and that contributions towards the cost of the service could not be expected from Government funds. Special circumstances might, however, be considered by any Government concerned to justify financial support from State funds. In general, the Committee has not sufficient information before it to show to what extent and on what terms the relaying of an Empire service could be arranged.

3. The Committee recognizes the importance of strengthening the ties between the members of the British Commonwealth of Nations and, bearing in mind the
30 valuable assistance in attaining this object likely to be afforded by the medium of broadcasting, it recommends to the Conference the adoption of a resolution in the following terms:—

“The Conference has examined the question of the establishment of an Empire broadcasting service and considers that such a service, organized and conducted on sound lines, would be greatly appreciated by many persons in

the Dominions, in India and in the Colonies, and would strengthen the ties between various parts of the British Commonwealth. It should also tend to stimulate trade and commerce within the Commonwealth.

“The Conference welcomes the action of the British Broadcasting Corporation in carrying out experimental work in connection with Empire broadcasting and in submitting proposals for a permanent and extended service from a new station in the United Kingdom.

10 “The conference recognizes the technical and financial difficulties of the scheme and feels that further information is required to determine whether they can be overcome. It recommends, as a first step, that His Majesty’s Government in the United Kingdom should suggest to the British Broadcasting Corporation that that body should communicate particulars of the scheme to the broadcasting organizations or other appropriate authorities throughout the Empire and should invite them to furnish their views (after any necessary consultation with their respective Governments) as to the value to them of such a service and as to their readiness to make a contribution towards its cost in return for the right to relay any part of the service which they may require.

20 “In conjunction with these proposals for a regular service, the Conference recognizes the desirability of encouraging broadcasting organizations in the various parts of the Commonwealth to arrange for the reciprocal broadcasting of programs and events of special interest, in any cases where suitable means of long distance transmission may be available.”

Signed on behalf of the Committee,

FRANK BRENNAN,
Deputy Chairman.

29th October, 1930.

(B) REPORT ON CERTAIN QUESTIONS REGARDING CABLE AND RADIO COMMUNICATIONS

III.—RADIO BROADCAST OF WEATHER MAPS

30 4. The Committee has listened with interest to a statement of the work being carried out by His Majesty’s Government in Australia in broadcasting weather maps from the radio stations under their control.

Further, it is understood that His Majesty’s Government in the United Kingdom has successfully carried out experimental work of a similar nature in connection

with both shipping and aviation, and also that in the United States of America this subject has been given careful attention by the Government bodies directly interested.

The Committee, therefore, recommends to the Conference the adoption of a resolution in the following terms:—

“The Conference notes with approval the work now under way in the United Kingdom and Australia in connection with the transmission of weather maps by radio for the use of shipping and aviation services.

10 “The Conference wishes to draw the attention of all Governments of the Empire to the great importance of this service both to shipping and to aircraft, and recommends that the Imperial Shipping Committee be asked to study this question with a view to promoting the further development of the service as an aid to navigation.”

Signed on behalf of the Committee,

FRANK BRENNAN,
Deputy Chairman.

October 30, 1930.

No. 11
The Royal Commission on Radio Broadcasting

REPORT

THE HONOURABLE P. J. A. CARDIN, MINISTER OF MARINE AND FISHERIES,

OTTAWA, ONTARIO

SIR,—We have the honour to submit the following report on the subject of Radio Broadcasting, in accordance with the requirements of Order in Council P.C. 2108:

OBJECT OF COMMISSION

10 The Royal Commission on Radio Broadcasting was appointed by the Government to inquire into the existing situation in Canada and to examine the different methods adopted in other countries.

The purpose of the inquiry was to determine how radio broadcasting in Canada could be most effectively carried on in the interests of Canadian listeners and in the national interests of Canada.

According to the terms of reference of the Order in Council appointing the Commission, it was required:—

20 “to examine into the broadcasting situation in the Dominion of Canada and to make recommendations to the Government as to the future administration, management, control and financing thereof.”

METHODS IN OTHER COUNTRIES

Before setting out to hold meetings in Canada, we considered it wise to visit some of the countries abroad where broadcasting is well organized or is in process of organization, so that we would be in a position, if necessary, to discuss with the provincial authorities in Canada and others, the relative merits of the different methods employed. We found broadcasting especially well organized in Great Britain under the British Broadcasting Corporation, and in Germany where the radio service is also under a form of public ownership, control and operation. In France the situation has been studied by a government commission. No definite statement,
 30 however, can be made at the present time as to the recommendations of the Commission. Everywhere in Europe we found inquiries being conducted under govern-

ment auspices for the purpose of organizing broadcasting on a nation-wide basis in the public interest. In addition to London, Berlin, Paris and Lille, we visited the Hague, Brussels, Geneva, Dublin and Belfast. A visit was also made to New York, where methods followed by the National Broadcasting Company were observed. We have also received information from "Union Internationale de Radiophonie" at Geneva, and other sources concerning broadcasting in countries which were not visited.

A statement of methods followed in other countries is shown in Appendix I.

SITUATION IN CANADA

10 We have held public sessions in twenty-five (25) Canadian cities, including the capitals of the nine provinces. One hundred and sixty-four persons submitted verbal statements at these sessions; in addition we have received 124 written statements (see Appendix II).

Conferences were held with the authorities of the nine provinces, who gave every assistance to the Commission and promised their co-operation in the organization of broadcasting. Written statements giving this assurance have been received from them (see Appendix III). Resolutions have also been received from numerous representative bodies, the large majority favouring the placing of broadcasting on a basis of public service.

20 In our survey of conditions in Canada, we have heard the present radio situation discussed from many angles with considerable diversity of opinion. There has, however, been unanimity on one fundamental question—Canadian radio listeners want Canadian broadcasting. This service is at present provided by stations owned by private enterprise and with the exception of two, owned by the Government of the province of Manitoba, are operated by the licensees for purpose of gain or for publicity in connection with the licensees' business. We believe that private enterprise is to be commended for its effort to provide entertainment for the benefit of the public with no direct return of revenue. This lack of revenue has, however, tended more and more to force too much advertising upon the listener. It also
30 would appear to result in the crowding of stations into urban centres and the consequent duplication of services in such places, leaving other large populated areas ineffectively served.

The potentialities of broadcasting as an instrument of education have been impressed upon us; education in the broad sense, not only as it is conducted in the schools and colleges, but in providing entertainment and of informing the public on questions of national interest. Many persons appearing before us have expressed the view that they would like to have an exchange of programs with the different parts of the country.

At present the majority of programs heard are from sources outside of Canada. It has been emphasized to us that the continued reception of these has a tendency to mould the minds of the young people in the home to ideals and opinions that are not Canadian. In a country of the vast geographical dimensions of Canada, broadcasting will undoubtedly become a great force in fostering a national spirit and interpreting national citizenship.

At the conclusion of our inquiries, it is our task, the importance of which we are deeply conscious, to suggest the means as to how broadcasting can be carried on in the interests of Canadian listeners and in the national interests of Canada. 10 The Order in Council appointing us to undertake this work contains the suggestion that the desired end might be achieved in several ways provided funds are available, viz:—

- (a) the establishment of one or more groups of stations operated by private enterprise in receipt of a subsidy from the Government;
- (b) the establishment and operation of stations by a Government-owned and financed company;
- (c) the establishment and operation of stations by Provincial Governments.

We have examined and considered the facts and circumstances as they have come before us. As our foremost duty, we have concentrated our attention on the 20 broader consideration of the interests of the listening public and of the nation. From what we have learned in our investigations and studies, we are impelled to the conclusion that these interests can be adequately served only by some form of public ownership, operation and control behind which is the national power and prestige of the whole public of the Dominion of Canada.

PROPOSED ORGANIZATION

The system which we propose does not fall within the exact category of any of those suggested in the Order in Council, but is one which might be regarded as a modification of (b), i.e., "the establishment and operation of stations by a Government-owned and financed company." As a fundamental principle, we believe 30 that any broadcasting organization must be operated on a basis of public service. The stations providing a service of this kind should be owned and operated by one national company. Such a company should be vested with the full powers and authority of any private enterprise, its status and duties corresponding to those of a public utility. It is desirable, however, that provincial authorities should be in a position to exercise full control over the programs of the station or stations in their respective areas. Any recommendation which we offer is primarily made with this object in view. As to what extent the provinces should participate in

effecting this control, of course, is a matter which could be decided between themselves and the Dominion Government authorities.

In order satisfactorily to meet these requirements which we have outlined, we recommend the following organization:—

- (1) A national company which will own and operate all radio broadcasting stations located in the Dominion of Canada, the company to be called the Canadian Radio Broadcasting Company (C.R.B.C.);
- (2) A Provincial Radio Broadcasting Director for each province, who will have full control of the programs broadcast by the station or stations located within the boundaries of the province for which he is responsible. Some provinces might consider it desirable to place the control of broadcasting under a provincial commission. This is a matter to be determined by the provinces concerned;
- (3) A Provincial Advisory Council on radio broadcasting for each province to act in an advisory capacity through the provincial authority.

PERSONNEL

The Company.—It is important that the board or governing body of the company should be fully representative of the Dominion and provincial interests so that the closest co-operation among different parts of the country may be maintained. In order that this may be accomplished we would recommend that the governing body or board of the company should be composed of twelve members, three more particularly representing the Dominion and one representing each of the provinces; the mode of appointment of the provincial directors to be decided upon by agreement between the Dominion and provincial authorities.

Provincial Control.—The representative of the province on the Board of the National Company would be the Provincial Director. In the event of any province appointing a provincial commission, the Provincial Director should be the chairman of such commission.

Provincial Advisory Councils.—We would suggest that each council should be composed of members representative of the responsible bodies interested in radio broadcasting.

BROADCASTING STATIONS

Stations under Proposed Organization.—It is to be hoped that the system will eventually cover effectively and consistently that vast northern territory of Canada which at present has comparatively few inhabitants at remote and scattered points but which may come to be as densely populated as some European countries in the same latitude. The Company's immediate objective should be,

however, to provide good reception over the entire settled region of the country during daylight or dark under normal conditions on a five-tube receiving set.* How this requirement can best be met will be a question with which the experts entrusted with the responsibility will have to deal. However, from our own observations and from information we have received, we believe it has been fairly well established in practice that high-power stations are needed to reach consistently with good results the maximum number of people. We would like, therefore, to recommend as a matter for consideration, the establishment of seven (7) stations, each having an aerial input of say 50,000 watts; one station to be suitably
 10 located in each province, except in New Brunswick, Nova Scotia, and Prince Edward Island, where one station could be centrally located to serve these three provinces. The proposed high-power stations could form the nucleus of the system and as each unit were brought into operation it could be ascertained what local areas, if any, were ineffectively served and stations of smaller power could accordingly be established to serve these places.

We would also suggest that the high-power stations might be so designed as to permit, in time, an increase of power to an economic maximum and of being so modelled as ultimately to provide for two programs being broadcast simultaneously on different wavelengths.

20 It is well, perhaps, to point out here the necessity of locating broadcasting stations at suitable distances from centres of population to obviate blanketing of reception from outside points. The need for this has been amply demonstrated to us.

We think it is important that, to provide the fullest scope for the proposed system and in the interests of the whole country, all facilities necessary for chain broadcasting be made available in order to permit simultaneous broadcasting by the entire group of stations from coast to coast or by such grouping in different regions as may be considered desirable from time to time.

30 We are of opinion that the question of development of broadcasting far beyond its present state, which may include television, is one of great importance and should be closely kept pace with so that the service in Canada would continue equal to that in any other country.

Provisional Broadcasting Service.—While we believe that the proposed organization should be adopted and establishment of the high-power stations proceeded with as soon as possible, it seems necessary that provisional service be furnished. To do this, we recommend that one existing station in each area be taken over from private enterprise and continued in operation by the Canadian Radio Broad-

* Receiving sets employing less than five tubes are, in general, tending to go out of use.

casting Company until such time as the larger stations in the proposed scheme are placed in operation. The existing stations carrying on the provisional service could then be closed.

The stations selected for the provisional service should be so chosen from those at present in existence as to provide maximum possible coverage. All remaining stations located or giving a duplication of service in the same area should be closed down. We understand that under the provisions of the Radiotelegraph Act, the licences now in effect may be allowed to expire at the end of the fiscal year or they may be terminated at any time at the pleasure of the
10 licensing authority without legal obligation to pay compensation. We would recommend, nevertheless, that reasonable compensation be allowed such as the broadcasting stations at present in active operation for apparatus as may be decided by the Minister of Marine and Fisheries, the licensing authority.

The apparatus for which compensation is paid should, we think, become the property of the Canadian Radio Broadcasting Company. The more modern and efficient sets of such apparatus could then become available for re-erection as might be deemed necessary by the company.

FINANCE

Cost of Establishing Stations in Proposed Organization.—The stations forming
20 the system in the proposed organization should be well and fully equipped. The cost of installing the seven high-power units would probably approximate \$3,000,000. There would, however, be considerable salvage value in the plants taken over. Assuming that four smaller stations, three 5,000 watt and one 500 watt, would be needed to furnish a supplementary service in local areas not effectively reached by the high-power units, an additional amount of possibly \$225,000 would have to be spent in re-erecting apparatus taken over from present station owners. These expenses would represent a capital expenditure of \$3,225,000.

In addition to this, compensation would have to be paid to owners of existing stations which we think should be met out of an appropriation made by Par-
30 liament.

Cost of Operation.—The service provided would necessarily have to be of a high order. A total annual expenditure for operation of the entire organization proposed, including supplementary stations, would seem to require a minimum of approximately \$2,500,000. In addition, the question of interest on capital and sinking fund would have to be considered.

Revenue.—Various methods have been suggested to us as to how revenue might be raised fully to meet the cost of a broadcasting system. If the general public as a whole were listeners, there might be no just reason why the full cost

of carrying on a broadcasting service could not be met out of an appropriation made by Parliament from public funds. It is conceivable that that time will come, but under existing conditions, we would not feel justified in suggesting that the general public should be required to pay for the whole of the service which only those possessing radio receiving sets can enjoy. On the other hand, however, radio broadcasting is becoming more and more a public service and in view of its educative value on broad lines and its importance as a medium for promoting national unity, it appears to us reasonable that a proportion of the expenses of the system should be met out of public funds.

10 Three sources from which revenue could be derived are suggested, viz:—

- (1) Licence fees;
- (2) Rental of time on broadcasting stations for programs employing indirect advertising;
- (3) Subsidy from the Dominion Government.

Licence Fees.—A fee of \$1 is at present charged for a receiving licence. Fifty per cent of all licence fees collected in Manitoba is paid over to the Government of that province towards the maintenance of the provincial-owned broadcasting stations at Winnipeg and Brandon. With this exception, no contribution to the cost of broadcast programs in Canada is made from fees collected, which revert
20 to the revenue fund of the Dominion Government.

It should be pointed out, however, that the Marine Department, through its Radio Branch, maintains a service to broadcast listeners in suppressing extraneous noises interfering with radio reception, at an expenditure in proportion to the amount of revenue received from licence fees.

The information we have received seems to indicate that listeners would not be averse to an increase in the licence fee, if an improved Canadian broadcasting service could be provided. In Great Britain the fee is ten shillings (10/) per annum. In Germany and Japan, an amount approximating six dollars (\$6) a year is collected. In Australia, the annual fee is twenty-four shillings (24/).
30 We are of opinion, however, that while the present fee should be increased, the amount should not be so high as to prove burdensome for those of limited means. A fee of three dollars (\$3) per year would seem reasonable and would at the same time yield a fair amount of revenue. We recommend that the fee be fixed at this amount.

On the basis of the number of licences now in effect, approximately 300,000, a gross revenue of \$900,000 per annum would be available from this source. The number of licences may be expected to increase from year to year. We think that radio dealers should be required to collect the licence fee whenever a receiving set is sold.

Rental of Time for Programs Employing Indirect Advertising.—The ideal program should probably have advertising, both direct and indirect, entirely eliminated. Direct advertising is used to considerable extent by broadcasting stations at the present time as a means of raising revenue to meet the expense of operation. In our survey of the situation in Canada, we have heard much criticism of this class of advertising. We think it should be entirely eliminated in any national scheme. Direct advertising is defined as extolling the merits of some particular article of merchandise or commercial service. Manufacturers and others interested in advertising have expressed the opinion that they should be allowed
 10 to continue advertising through the medium of broadcasting to meet the competition coming from the United States. We think that this can be satisfactorily met by allowing indirect advertising which properly handled has no very objectionable features, at the same time resulting in the collection of much revenue. An example of indirect advertising would be an announcement before and after a program that it was being given by a specified firm. Programs of this kind are often referred to as sponsored programs. Until such time as broadcasting can be put on a self-supporting basis, we would recommend that the stations' time be made available for programs employing a limited amount of indirect advertising at so much per hour per station.

20 It is rather difficult to estimate what revenue would be collected for rental of time, but we think that an amount of approximately \$700,000 annually could be expected at the beginning.

Subsidy from the Dominion Government.—As compared with many of the European countries where the responsibility of broadcasting has been assumed by the Government, Canada has a comparatively small population, scattered over a vast tract of country. The large territory requires a greater number of stations while the relatively small population makes it obviously impossible to finance the entire scheme from licence fees, if the same are to be kept at a moderate figure. Revenue from programs employing indirect advertising will, we believe, supple-
 30 ment the deficiency in licence fees to a considerable extent. The most desirable means of meeting the additional expenditure required would seem to be by a subsidy from the Dominion Government. We would recommend that the proposed company be subsidized to the amount of \$1,000,000 a year for a period of say five years renewable, subject to review, for a further period of five years after expiry of the first.

We believe that broadcasting should be considered of such importance in promoting the unity of the nation that a subsidy by the Dominion Government should be regarded as an essential aid to the general advantage of Canada rather than as an expedient to meet any deficit in the cost of maintenance of the service.

PROGRAMS

General.—The question of programs, we have no doubt, will be in capable hands if and when they come within the control of the representative bodies which we have suggested. The general composition of programs will need careful study.

Chain Broadcasting.—Chain broadcasting has been stressed as an important feature. We think that an interchange of programs among different parts of the country should be provided as often as may seem desirable, with coast to coast broadcasts of events or features of national interest, from time to time.

10 *Programs from Other Countries.*—The possibility of taking programs from Great Britain has already been demonstrated. While the primary purpose of the service would be to give Canadian programs through Canadian Stations, we think that every avenue should be vigorously explored to give Canadian listeners the best programs available from sources at home and abroad.

Programs employing Indirect Advertising.—Time should be made available on the various stations singly or for chain broadcasting for firms desiring to put on programs employing indirect advertising. We think that it is important that all such programs should be carefully checked to see that no direct advertising or any objectionable feature would be put on the air. We are strongly against any form of broadcasting employing direct advertising.

20 *Education.*—Certain specified hours should be made available for educational work both in connection with the schools and the general public as well as the so-called “adult education,” under Provincial auspices.

Religion.—The representative bodies which we have suggested to advise upon the question of programs would be called upon to deal with the matter of religious services, and it would be for them to decide whatever course might be deemed expedient in this respect. We would emphasize, however, the importance of applying some regulation which would prohibit statements of a controversial nature and debar a speaker making an attack upon the leaders or doctrine of another religion.

30 *Politics.*—While we are of opinion that broadcasting of political matters should not be altogether banned, nevertheless, we consider that it should be very carefully restricted under arrangements mutually agreed upon by all political parties concerned.

Wavelengths.—We are aware that the question of wavelengths is not one with which we are called upon to deal. But in our survey of the situation in Canada, the inadequacy of wavelengths at present available for broadcasting in this country, namely, six “exclusive” and eleven “shared” channels, has been persistently

pointed out to us. This has been emphasized as one reason for the present unsatisfactory conditions of broadcasting in Canada. Many have expressed the feeling, with which we fully concur, that Canada's insistence upon a more equitable division of the broadcast band with the United States should not be relinquished.

Announcers.—It has been stressed to us and we strongly recommend the importance of having competent and cultured announcers (French and English) and the desirability of having special training and tests of capability for such persons.

INTERFERENCE

Complaints of interference with radio reception, from electrical distribution lines, machinery and apparatus, have been brought to our attention in different parts of the country. It has been gratifying at public sessions to hear spontaneous tribute paid by disinterested persons to the efficient work of the Marine Department radio inspectors in removing much of the trouble caused in this way. Their work appears to be made more difficult, however, in that there is no law in effect compelling the users of interfering apparatus to correct faults which interfere with radio reception once such are pointed out by the inspector. The desirability of having legislation to meet such cases has been suggested to us. We recommend the earnest consideration of this suggestion.

CONTROL

20 The Minister of Marine and Fisheries under the Radiotelegraph Act is the licensing authority for all classes of Radio Stations, which includes Radio Broadcasting Stations and receiving sets. Direct control over such technical questions as wavelengths, power of stations and the collection of license fees should, we consider, remain with this authority. In order to promote good reception conditions, it is most desirable that the radio activities of other departments of the Government should conform to the regulations and be subject to the authority of the Radiotelegraph Act. We are also of the opinion that the Radio Branch of the Marine Department should continue to carry on the service to broadcast listeners, which includes the suppression of inductive interference.

30

SUMMARY OF RECOMMENDATIONS

The following is a summary of our principal recommendations, viz:—

- (a) **That broadcasting should be placed on a basis of public service and that the stations providing a service of this kind should be owned and operated by one national company; that provincial authorities should have full control over the programs of the station or stations in their respective areas;**
- (b) **That the company should be known as the Canadian Radio Broadcasting Company; that it should be vested with all the powers of private enterprise and that its status and duties should correspond to those of a public utility;**

- (c) That a Provincial Radio Broadcasting Director should be appointed for each province to have full control of the programs broadcast by the station or stations located within the boundaries of the province for which he is responsible;
- (d) That a Provincial Advisory Council on radio broadcasting should be appointed for each province, to act in an advisory capacity through the provincial authority;
- (e) That the Board of the company should be composed of twelve members, three more particularly representing the Dominion and one representing each of the provinces;
- 10 (f) That high-power stations should be erected across Canada to give good reception over the entire settled area of the country during daylight; that the nucleus of the system should possibly be seven 50,000 watt stations; that supplementary stations of lower power should be erected in local areas, not effectively covered by the main stations, if found necessary and as experience indicates;
- (g) That pending the inauguration and completion of the proposed system, a provisional service should be provided through certain of the existing stations which should be continued in operation by the Canadian Radio Broadcasting Company; that the stations chosen for this provisional service should be those which will give the maximum coverage without duplication; that all remaining stations not so needed should be closed down;
- 20 (h) That compensation should be allowed owners of existing stations for apparatus in use as may be decided by the Minister of Marine and Fisheries; that such apparatus should become the property of the Canadian Radio Broadcasting Company; that the more modern and efficient of these sets of apparatus should be held available for re-erection in local areas not effectively served by the high-power stations; that the cost of compensation should be met out of an appropriation made by Parliament;
- (i) That expenditure necessary for the operation and maintenance of the proposed broadcasting service should be met out of revenue produced by licence fees, rental of time on stations for programs employing indirect advertising, and a subsidy from the Dominion Government;
- 30 (j) That all facilities should be made to permit of chain broadcasting by all the stations or in groups; that while the primary purpose should be to produce programs of high standard from Canadian sources, programs of similar order should also be sought from other sources;
- (k) That time should be made available for firms or others desiring to put on programs employing indirect advertising; that no direct advertising should be allowed; that specified time should be made available for educational work; that where religious broadcasting is allowed, there should be regulations prohibiting statements of a controversial nature or one religion making an attack upon the leaders or doctrine of another; that the broadcasting of political matters should be carefully restricted under arrangements mutually agreed upon by all political parties concerned; that competent and cultured announcers only should be employed.
- 40 (l) That consideration should be given to the question of introducing legislation which would compel users of electrical apparatus causing interference with broadcast reception to suppress or eliminate the same at their own expense;

- (m) That the licensing of stations and such other matters prescribed in the Radio telegraph Act and Regulations issued thereunder for the control of radio stations in general should remain within the jurisdiction of the Minister of Marine and Fisheries; that that authority should continue to be responsible for the collection of licence fees and the suppression of inductive interference causing difficulties with radio reception.

This report would be incomplete without an expression of appreciation of the many courtesies extended to the commission in Canada and abroad. In Great Britain all the authorities concerned, and especially the executive officers of the 10 British Broadcasting Corporation, were unremitting in responding to the requests of the commission for information and enlightenment. The national radio authorities in France, Germany, Belgium, Holland, the Irish Free State and the National Broadcasting Company of the United States similarly received the commission most cordially and helpfully. At Geneva, the commission met the officers of the Union Internationale de Radiophonie.

It has been greatly to the advantage of the commission that the Department of Marine has extended all available facilities for the gathering of information regarding the present radio situation in Canada.

The department most considerately acceded to the request of the commission 20 to be allowed to have the service of the Chief Inspector of Radio, Mr. Donald Manson, as Secretary; his intimate knowledge of radio activities in Canada and abroad, combined with unremitting industry and foresight, has contributed much toward the satisfactory organization of the commission's tour.

JOHN AIRD (*Chairman*).
CHARLES A. BOWMAN.
AUGUSTIN FRIGON.

DONALD MANSON (*Secretary*).
September 11, 1929.

APPENDIX I

BROADCASTING IN OTHER COUNTRIES

AUSTRALIA

Australia has twenty-four broadcasting stations. They are divided into two categories: Class "A"—those of high power and Class "B" of low power. Arrangements have been made for Class "A" stations to be taken over by the Commonwealth Government. The Post Office Department will control and operate the stations and studio equipment, a contract being made with a private company for the rendering of programs throughout the Commonwealth. The cost of maintaining 10 these services will be borne from the revenue derived from the listeners' licence fee, which has been fixed at twenty-four shillings (24/) per annum.

Class "B" stations will be operated by private companies and will be maintained from revenue to be derived from publicity programs.

Licensed receivers numbered 301,199 in June, 1929.

AUSTRIA

A licence has been granted to a private organization known as "Oesterreichische Radio-Verkehrs A.G." which has six stations.

The revenue is derived from licences issued by the Post Office. The annual fee is from 24 to 72 Austrian shillings, according to the type of apparatus, of which the 20 broadcasting organization receives 90 per cent.

The number of licensed listeners at the end of December, 1928, was 325,200.

BELGIUM

Provisional Broadcasting licences have been granted to two organizations in Belgium. The Government has been considering the question of broadcasting and has practically decided upon corporation ownership with control by the State. It is proposed to have 10 members form a permanent commission with the minister of the responsible department as chairman of the body.

The stations will be operated by a company to be subsidized by the Govern- 30 ment. Subsidies will be paid out of licence fees collected from listeners and a tax placed on valves sold for receiving sets.

The collection of licence fees from listeners is not at present enforced. If and when the new arrangement goes into effect, the fees imposed will be 60 Belgian francs, 80 per cent or 90 per cent of which will be paid to the company.

The new scheme will provide for the use of two stations—one for the French language and one for the Flemish. Later a small station using the German language may be erected.

On December 31, 1928, the number of registered listeners was 36,000.

CZECHOSLOVAKIA

The broadcasting is conducted by an organization known as Radiojournal in which the State holds a considerable financial interest. There are five transmitting stations, but a considerable program of development is just being commenced which includes a central high power station. All the stations but that of Prague are
10 operated technically by the State. The revenue is obtained from licence fees, this being one of 10 Czechoslovakian crowns per month.

The number of licensed listeners on December 31, 1928, was 236,861.

DENMARK

The broadcasting here is almost entirely in the hands of the State, being conducted by one organization termed "Radioraadet" which is under the joint control of the Ministers of Education and Public Works. There is, however, an Advisory Council containing representatives of all the principal groups of Danish social life. There are two stations only: a long wave station at Kalundborg of 7·5 k.w. antenna input and a short wave in Copenhagen of 0·75 k.w. antenna input.
20 Revenue is obtained exclusively from licence fees ranging between 10 and 15 Danish crowns per annum.

The number of listeners on January 8, 1929, was 252,200.

ESTHONIA

A transmitting licence has been granted to one organization known as "Radio-Ringäaling" which is in close contact with the Government. There is at present only one station at Tallinn—1·5 k.w. antenna input. Revenue is obtained through receiving licences, which range in cost from 600 to 6,000 Esthonian marks according to the nature of the apparatus. No figures are yet available as to number of listeners.

FINLAND

30 The serious broadcasting has been entrusted by the Government to an organization known as "OsakeyhtiöSuomen Ylais-radio," the stations being built and operated by the Government. The principal station is a long wave station of 40 k.w. antenna input at Lahti. The revenue is derived from licences costing 100 Finnish marks per year.

On January 1, 1928, there were 36,900 licensed listeners, but this number increased to 73,800 licences at December 31, 1928.

FRANCE

The broadcasting stations in France are owned and operated partly by the Government and partly by private enterprise. The French Government has just completed a survey of the methods followed in other countries. They are of opinion that the German system is more suited for France, i.e., Regional control with regard to the arrangement of programs and final control and distribution of funds by the State. There exists a small licence fee for receiving sets, but only a negligible percentage of listeners are believed to pay the fee. It is proposed to charge 20 francs per year for crystal receiving sets and 40 francs per year for valve sets with
10 a tax on all valves applied at point of manufacture. The new scheme would provide for 8 stations each of 30 k.w.

GERMANY

The German Government, through the Post Office Department, operate the technical equipment of the broadcasting stations in Germany. Each state in Germany, however, has a broadcasting company which is responsible for arranging the programs broadcast through the stations located in its own territory. There is a Program Committee of three persons for the State, two appointed by the State and one by the German Federal Government.

These State companies pay to the Post Office Department a licence fee for
20 using the broadcasting installation. Under this licence the companies must fulfil certain requirements laid down by the German Government with regard to the matter broadcast. In addition to paying the cost of providing the programs the companies must also meet the cost of the operation of the stations, including staff salaries, maintenance of equipment, etc., as well as interest on and amounts for amortising capital expenditure.

The State Broadcasting Companies are controlled by a holding company called the Reichs-Rundfunk-Gesellschaft. The German Government hold 51 per cent of the Reichs-Rundfunk-Gesellschaft shares by virtue of which the Government may exercise final control of the management of the different state companies, through
30 the holding company.

Broadcast listeners in Germany are required to pay 2 Reich-Marks a month (approximately 50 cents) for a licence. Fifty per cent or sixty per cent of these fees are distributed to the Broadcasting Companies. If, after meeting expenses there is a profit a company may pay its shareholders dividends, but not in excess of 10 per cent. The surplus profit exceeding this percentage must be paid to the holding company, the Reichs-Rundfunk-Gesellschaft. The latter in turn is required to apply 35 per cent of these surplus profits to the enlargement of the technical installations and for the general development of broadcasting and 10 per cent to the formation of a reserve fund.

40 On December 31, 1928, there were 2,635,567 licensed listeners.

GREAT BRITAIN

Broadcasting is carried on by the Government, through an organization known as the British Broadcasting Corporation which has a Board of Governors appointed by the State. This corporation has been granted a monopoly for ten years. It owns 21 stations of which one is a long-wave station of 25 k.w. antenna input. The revenue is derived from a percentage of the licence fees and from profits on publications. The annual licence fee is ten shillings (10/) and the number of listeners on June 30, 1929, was 2,791,717.

HOLLAND

- 10 Broadcasting in Holland is carried on by five political and religious societies through two privately owned stations. The Government has just appointed a Commission with a view to putting broadcasting on a more satisfactory basis, possibly through some sort of Government control. No licence fee is collected from listeners in Holland.

HUNGARY

The Government has granted a licence to an organization known as "Magyar Telefon Hirmondo es Radio R.T." The transmitting station, one of 20 k.w. antenna input is, however, the property of the State and operated by the Department of Posts and Telegraphs. The revenue is derived exclusively from licence 20 fees, there being a monthly tax of 2·4 pengös.

The number of licensed listeners on June 1, 1928, was 102,760, and on November 30, 1928, 148,780.

INDIA

There are six broadcasting stations in India operated by various interests. A company which is to have a monopoly on broadcasting is, however, being organized. The receiving licence fee is 10 rupees (\$3.65) per year.

IRISH FREE STATE

Broadcasting in the Irish Free State is a state service operated through the Department of Posts and Telegraphs. There are two stations, one at Dublin and 30 the other at Cork. Revenue is derived from licence fees and customs tax on all radio apparatus imported. The licence fee is ten shillings (10/) per annum.

In December, 1928, there were 26,406 licensed listeners.

ITALY

The sole right to broadcast in Italy has been granted to an organization known as "Ente Italiano per le Audizioni Radiofoniche" (E.I.A.R.), but over this there has been created a Commission of Control consisting of leaders in Italian politics, arts, literature and science. The transmitters are erected and operated by the

broadcasting organization and the program of development provides eventually seven stations. Revenue is obtained from taxes on apparatus sold and licence fees. The annual licence fee is 12 liras. A recent Italian decree places at the service of the Italian broadcasting organization (at fees to be mutually agreed upon) all stage and other performances of musical and literary works after they have been performed three times in public. On November 30, 1928, there were 53,000 licensed listeners (which figure is but a small percentage of the actual number).

LATVIA

The State has retained charge until now of the broadcasting activities in this 10 country. Some revenue is obtained from licence fees. At the end of May, 1928, there were 19,685 licensed listeners.

NORWAY

Two main groups have been licensed to broadcast in Norway. A fusion is anticipated shortly. The technical work, however, is under the control of the State which will shortly supplement the existing stations with one of 60 k.w. antenna input in the neighbourhood of Oslo. The broadcasting organizations receive 80 per cent of the licence fees which are individually 20 Norwegian crowns per annum. The total number of licensed listeners on December 31, 1928, was 59,996.

20

POLAND

The monopoly in broadcasting has been granted to an organization known as Polskie Radjo S.A. The transmitters are built and operated by the engineers of this organization. A considerable program of development is contemplated, including the construction at Warsaw of a high-power station of 150 k.w. antenna input. The number of licensed listeners grew from 117,236 in June to 189,481 listeners at December 31, 1928.

ROUMANIA

A monopoly has recently been granted for a limited number of years to a private organization known as Societatea de Difuziune Radiotelephonica din 30 Romania. This organization is building a station of 12 k.w. antenna input at Bucarest. Revenue will come exclusively from licence fees.

SPAIN

There exist in Spain two main groups possessing licences from the Government and a few individual stations also privately owned which are gradually disappearing. The whole tendency is to centralize activities in a single group. There

is a system of licence fees (5 pesetas per annum) not strictly enforced. The revenue is obtained partly by voluntary contributions, and partly from the broadcasting of advertisement.

SWEDEN

Broadcasting is in the hands of an organization known as Aktiebolaget Radiotjänst in which the press of the country is largely interested. The transmitters are owned and operated by the State. They are about 30 in number, including one of 40 k.w. antenna input at Motala working on a long wave. Radiotjänst has about 4,000 miles of telephonic circuits connecting its Stockholm studio with the various
10 stations. The revenue comes exclusively from licence fees, 50 per cent being available for the programs' organization. The number of licensed listeners on December 31, 1928, was 380,863 or one receiver for each 16 persons.

SWITZERLAND

Five separate organizations have been granted licences to transmit, the State holding a place on each Board of Directors. The stations are the property of the companies. A fusion of interests is taking place which will probably result in the establishment of two high-power stations—one for French-speaking Switzerland and the other for German-speaking Switzerland. The only source of revenue is the licence fees (14 Swiss francs per annum).

20 The number of licensed listeners at the end of December, 1928, was 70,183.

TURKEY

One company has been given a monopoly for both Turkey in Europe and Turkey in Asia. Two high-power stations have been built, one at Angora, the other at Stamboul. The source of revenue is not known to us, nor the number of listeners. The growth of interest is believed, however, to be but small.

UNION OF SOUTH AFRICA

Broadcasting in the Union of South Africa is a regional monopoly, each station being licensed to operate exclusively within a certain territory for a period of five years. There are four stations. Receiving set owners are required to pay both licence
30 fees and broadcast subscriptions. The licence cost five shillings per year, while the subscriptions vary from six shillings, sixpence to thirty-five shillings, depending upon the distance from the broadcasting stations. Higher scales are in effect for sets to be used for commercial purposes.

UNITED STATES OF AMERICA

Broadcasting in the United States is carried on by private enterprise under licence of the Federal Radio Commission. There are 604 stations so licensed. There is no licence fee for listeners.

YUGOSLAVIA

Two organizations have definitely received permission to broadcast; a third is expected shortly. Some revenue is obtained from listeners, but the greater part from subsidies. The number of listeners is not definitely known. There are understood to be about 10,000 in the neighbourhood of Liubjiana.

10 NOTE.—Appendix II being a “list of persons making statements at public hearings” omitted.

APPENDIX III

STATEMENTS RECEIVED FROM PROVINCIAL GOVERNMENTS

April 17, 1929,

VICTORIA, BRITISH COLUMBIA

20 “. . . . The Government of British Columbia is ready and willing to enter into negotiations with the Government of Canada and the Governments of the various Canadian provinces, with a view to the organization of radio broadcasting on a basis of public service, by some method that may be mutually agreed upon by the said Governments. . . .”

April 23, 1929,

EDMONTON, ALBERTA

“. . . . The Government of Alberta is ready and willing to enter into negotiations with the Government of Canada and the Governments of the various provinces of Canada, with a view to the organization of radio broadcasting on a basis of public service, by some method that may be mutually agreed upon by the said Governments. . . .”

May 1, 1929,

REGINA, SASKATCHEWAN

“ The Government of the province of Saskatchewan is ready and willing to enter into negotiations with the Government of Canada and the Governments of the various Provinces of Canada, with a view to the organization of radio broadcasting on a basis of public service, by such method as may be mutually agreed upon by the said Governments. . . .”

June 15, 1929,

ST. JOHN, NEW BRUNSWICK

10 “ The Government of New Brunswick, while insisting that constitutionally the Provinces are not subject to any legislative or executive interference in dealing with the subject of broadcasting, except in time of war, is of opinion that co-operation between the Provinces and the Dominion would be beneficial in promoting national mutual understanding and education, and the Government is willing to enter into conference to ascertain the best method by which these objects may be attained. . . .”

June 28, 1929,

TORONTO, ONTARIO

20 “ The Government of Ontario is ready and willing to enter into negotiations with the Government of Canada and the Governments of the various Canadian provinces, with a view to the organization of radio broadcasting on a basis of public service, by some method that may be mutually agreed upon by the said Governments. . . .”

July 2, 1929.

WINNIPEG, MANITOBA

30 “ The Government of Manitoba is ready and willing to enter into negotiations with the Government of Canada and the Governments of the various Canadian provinces with a view to organization of radio broadcasting on a basis of public service by some method that may be mutually agreed upon. . . .”

July 6, 1929,

HALIFAX, NOVA SCOTIA

“ The Government of Nova Scotia is ready and willing to enter into negotiations with the Government of Canada and the Governments of the various provinces of Canada with a view to the organization of radio broadcasting on a basis of public service, by such method as may be mutually agreed upon by the said Governments. . . .”

July 18, 1929,

CHARLOTTETOWN, PRINCE EDWARD ISLAND

10 “ The Government of Prince Edward Island is ready and willing to enter into negotiations with the Government of Canada and the Governments of the various Canadian provinces, with a view to the organization of radio broadcasting on a basis of public service, by some method that may be mutually agreed upon by the said Governments. . . .”

August 28, 1929,

QUEBEC, QUEBEC (Translation)

20 “ The Government of the province of Quebec will be glad to collaborate as fully as possible and to give to the Government of the Dominion of Canada its support in order to solve the difficulties which exist at present in relation to broadcasting in Canada, as well as abroad.

“ However, while collaborating with the Government of Canada, as mentioned above, the Government of the province of Quebec does not intend to waive its rights of jurisdiction which have been granted to it by the British North America Act and this in so far as radio broadcasting is concerned. Although making this reservation, I am convinced that a definite policy could be established under common agreement between the Government of Canada and the various provincial Governments in the general interest of the country. . . .”

APPENDIX IV

30

BROADCASTING IN CANADA

Broadcasting in Canada is at present carried on by private enterprise except in the province of Manitoba where the stations are owned and operated by the provincial Government.

Full jurisdiction over the administration of all radio matters in the Dominion, including the licensing and control of broadcasting stations, is vested in the

Minister of the Department of Marine and Fisheries, and is exercised in accordance with the Radiotelegraph Act (Canada) and Regulations issued thereunder (R.S. Canada, 1927, Chapter 195).

Two classes of broadcasting licence are granted by the department—namely, Private Commercial and Amateur, the fees for same being \$50 and \$10 respectively per fiscal year.

Licences for broadcasting stations are issued only to British subjects or to companies incorporated under the laws of the Dominion of Canada or any of the provinces thereof. In addition the issue of Amateur Broadcasting Licences is restricted to recognized radio associations; they are not granted to individuals. An association licensed to operate an amateur broadcasting station may, however, subject to the approval of the Minister, authorize a station belonging to one of its members to broadcast on its behalf.

Receiving Licences are granted by the Department to any person in the Dominion irrespective of nationality, the fee for this class of licence being one dollar (\$1) per annum.

For the purpose of dealing with preventable interference in its various forms, the Department maintains throughout the Dominion a free inspection service, including a number of specially equipped cars for the purpose of tracing and dealing with interference caused by faulty power systems and associated electrical apparatus of various kinds.

The amount of revenue collected from receiving licence fees is taken into consideration by the Department each year when preparing its estimates to provide for this free service accorded the listening public.

While the subsidizing by the Department of private commercial broadcasting stations deemed worthy of financial assistance is provided for in the legislation out of the receiving licence fees collected, this provision has been given effect only in the case of the Province of Manitoba. In that Province where the broadcasting stations at Winnipeg and Brandon are operated by the Provincial Government Telephone System, 50% of all radio receiving licence fees collected reverts to the Provincial authorities.

A statement showing the number of broadcasting and receiving licences issued by the Department at various dates appears below, together with a list of Broadcasting stations at present licensed.

I. BROADCASTING LICENCES

Fiscal Year	Private Commercial	Amateur	Total
1922-23.....	62	8	70
1923-24.....	46	22	68
1924-25.....	63	17	80
1925-26.....	55	16	71
1926-27.....	73	23	96
1927-28.....	84	15	99
1928-29.....	79	12	91
1929-30.....	78*	9	87*

*This includes 16 licences for "phantom" stations.

II. RECEIVING LICENCES

	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29
Northwest Territories.....		4	3	17	46	94	111
Yukon.....			12	23	31	14	
British Columbia.....		2,769	6,049	9,494	14,776	18,561	23,704
Alberta.....		1,994	5,843	7,152	10,588	14,936	14,957
Saskatchewan.....		2,655	9,303	15,944	22,238	26,635	27,358
Manitoba.....		1,722	6,553	14,503	18,005	19,288	20,450
Ontario.....		11,677	41,347	60,110	102,504	125,012	145,263
Quebec.....		9,250	18,211	21,141	39,207	51,347	49,751
New Brunswick.....		430	1,240	2,612	2,968	4,475	6,285
Nova Scotia.....		970	2,772	3,288	4,998	7,106	8,587
Prince Edward Island.....		138	163	202	289	587	757
Total.....	9,954	31,609	91,996	134,486	215,650	268,055	296,926

NOTE.—The periods shown above are from 1st April to 31st March the following year. (The Dominion Government fiscal year.)

III. BROADCASTING STATIONS

(List of, omitted)

No. 12

Authorization of Canadian Representatives to Negotiate Agreement With the United States Respecting Broadcasting

GEORGE, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas King, Defender of the Faith, Emperor of India, Etc., Etc., Etc.

To all and singular to whom these Presents shall come, GREETING:

Whereas, for the better treating of and arranging certain matters which are now in discussion, or which may come into discussion, between Us and Our Good
 10 Friends the United States of America, relative to Radio-Telegraphic Communication between the Dominion of Canada and the United States of America, We have judged it expedient to invest a fit person with Full Power to conduct the said discussion on Our part, in respect of the Dominion of Canada: Know Ye, therefore, that We, reposing especial Trust and Confidence in the Wisdom, Loyalty, Diligence, and Circumspection of Our Trusty and Well-beloved the Honourable Charles Vincent Massey, Member of Our Privy Council for Canada, Our Envoy Extraordinary and Minister Plenipotentiary representing the interests of the Dominion of Canada in the United States of America, have named, made, constituted and appointed, as We do by these Presents name, make, constitute and
 20 appoint him Our undoubted Commissioner, Procurator, and Plenipotentiary, in respect of the Dominion of Canada; Giving to him all manner of Power and Authority to treat, adjust, and conclude with such Minister or Ministers as may be vested with similar Power and Authority on the part of Our Good Friends the United States of America any Treaty, Convention, or Agreement that may tend to the attainment of the above-mentioned end, and to sign for Us, and in Our name, in respect of the Dominion of Canada, everything so agreed upon and concluded, and to do and transact all such other matters as may appertain thereto, in as ample manner and form, and with equal force and efficacy, as We Ourselves could do, if personally present: Engaging and Promising, upon Our Royal Word,
 30 that whatever things shall be so transacted and concluded by Our said Commissioner, Procurator, and Plenipotentiary, in respect of the Dominion of Canada, shall, subject if necessary to Our Ratification, be agreed to, acknowledged and accepted by Us in the fullest manner, and that We will never suffer, either in the whole or in part, any person whatsoever to infringe the same, or act contrary thereto, as far as it lies in Our Power.

On February 22nd, the Canadian Government was informed that the United States Government is prepared to hold a conference at Washington this week for the purpose of concluding such a convention, in order that it may be considered by the United States Senate during the present session of Congress, which ends on March 4th.

For these reasons, the Acting Secretary of State for External Affairs, in conjunction with the Minister of Marine and Fisheries, recommends:

1. That the Canadian Government accept the invitation to hold the proposed Conference at Washington, at such time as may be arranged this week;
- 10 2. That His Majesty be requested to issue Full Power to the Honourable Vincent Massey, Envoy Extraordinary and Minister Plenipotentiary at Washington, to enable him to negotiate and to sign on behalf of Canada the proposed Radio Convention with the United States;
3. That, if it appears preferable in the light of the discussion, a temporary working arrangement should be made pending the conclusion of a definite convention later.
4. That Alex. Johnston, Esquire, Deputy Minister of Marine and Fisheries; C. P. Edwards, Esquire, Director of Radio, Department of Marine and Fisheries, and Jean Désy, Esquire, Counsellor, Department of External
20 Affairs, be appointed as technical advisers.
5. That the Secretary of State for Dominion Affairs and the United States Government be advised accordingly.

The Committee concur in the foregoing and submit the same for Your Excellency's approval.

E. J. LEMAIRE,
Clerk of the Privy Council.

The Right Honourable
The Secretary of State for External Affairs.

3

No. 13

THE BRITISH NORTH AMERICA ACT, 1867, SECTIONS 91, 92 and 132
30 Victoria, c. 3

Assented to 29th March, 1867

POWERS OF THE PARLIAMENT

Legislative
Authority
of
Parliament
of Canada.

91. It shall be lawful for the Queen, by and with the Advice and Consent of the Senate and House of Commons, to make Laws for the Peace, Order and good Government of Canada, in relation to all Matters not coming within the Classes of Subjects by this Act assigned exclusively to the Legislatures of the Provinces, and
10 for greater Certainty, but not so as to restrict the Generality of the foregoing Terms of this Section, it is hereby declared that (notwithstanding anything in this Act) the exclusive Legislative Authority of the Parliament of Canada extends to all Matters coming within the Classes of Subjects next hereinafter enumerated; that is to say,—

1. The Public Debt and Property.
2. The Regulation of Trade and Commerce.
3. The raising of Money by any Mode or System of Taxation.
4. The borrowing of Money on the Public Credit.
5. Postal Service.
- 20 6. The Census and Statistics.
7. Militia, Military and Naval Service, and Defence.
8. The fixing of and providing for the Salaries and Allowances of Civil and other Officers of the Government of Canada.
9. Beacons, Buoys, Lighthouses, and Sable Island.
10. Navigation and Shipping.
11. Quarantine and the Establishment and Maintenance of Marine Hospitals.
12. Sea Coast and Inland Fisheries.
13. Ferries between a Province and any British or Foreign Country or between
Two Provinces.
- 30 14. Currency and Coinage.
15. Banking, Incorporation of Banks, and the Issue of Paper Money.
16. Savings Banks.
17. Weights and Measures.
18. Bills of Exchange and Promissory Notes.

19. Interest.
20. Legal Tender.
21. Bankruptcy and Insolvency.
22. Patents of Invention and Discovery.
23. Copyrights.
24. Indians, and Lands reserved for the Indians.
25. Naturalization and Aliens.
26. Marriage and Divorce.
- 10 27. The Criminal Law, except the Constitution of Courts of Criminal Jurisdiction, but including the Procedure in Criminal matters.
28. The Establishment, Maintenance, and Management of Penitentiaries.
29. Such Classes of Subjects as are expressly excepted in the Enumeration of the Classes of Subjects by this Act assigned exclusively to the Legislatures of the Provinces.

And any Matter coming within any of the Classes of Subjects enumerated in this Section shall not be deemed to come within the Class of Matters of a local or private Nature comprised in the Enumeration of the Classes of Subjects by this Act assigned exclusively to the Legislatures of the Provinces.

EXCLUSIVE POWERS OF PROVINCIAL LEGISLATURES

Subjects of
exclusive
Provincial
Legislation. 20 **92.** In each Province the Legislature may exclusively make Laws in relation to Matters coming within the Classes of Subjects next hereinafter enumerated; that is to say,—

1. The Amendment from Time to Time, notwithstanding, anything in this Act, of the Constitution of the Province, except as regards the Office of Lieutenant-Governor.
2. Direct Taxation within the Province in order to the Raising of a Revenue for Provincial Purposes.
3. The borrowing of Money on the sole Credit of the Province.
- 30 4. The Establishment and Tenure of Provincial Offices and the Appointment and Payment of Provincial Officers.
5. The Management and Sale of the Public Lands belonging to the Province and of the Timber and Wood thereon.
6. The Establishment, Maintenance, and Management of Public and Reformatory Prisons in and for the Province.
7. The Establishment, Maintenance, and Management of Hospitals, Asylums, Charities, and Eleemosynary Institutions in and for the Province, other than Marine Hospitals.
8. Municipal Institutions in the Province.

9. Shop, Saloon, Tavern, Auctioneer, and other Licences in order to the raising of a Revenue for Provincial, Local or Municipal Purposes.
10. Local Works and Undertakings other than such as are of the following Classes:—
- (a) Lines of Steam or other Ships, Railways, Canals, Telegraphs, and other Works and Undertakings connecting the Province with any other or others of the Provinces, or extending beyond the Limits of the Province:
- (b) Lines of Steam Ships between the Province and any British or Foreign Country.
- Such Works as, although wholly situate within the Province, are before or after their Execution declared by the Parliament of Canada to be for the general Advantage of Canada or for the Advantage of Two or more of the Provinces.
11. The Incorporation of Companies with Provincial Objects.
12. The Solemnization of Marriage in the Province.
13. Property and Civil Rights in the Province.
14. The Administration of Justice in the Province, including the Constitution, Maintenance, and Organisation of Provincial Courts, both of Civil and of Criminal Jurisdiction, and including Procedure in Civil Matters in those Courts.
15. The Imposition of Punishment by Fine, Penalty, or Imprisonment for enforcing any Law of the Province made in relation to any Matter coming within any of the Classes of Subjects enumerated in this Section.
16. Generally all Matters of a merely local or private Nature in the Province.

132. The Parliament and Government of Canada shall have all Powers necessary or proper for performing the Obligations of Canada or of any Province thereof, as Part of the British Empire, towards Foreign Countries arising under Treaties between the Empire and such Foreign Countries.

No. 14

4-5 EDWARD VII

CHAP. 49

AN ACT TO PROVIDE FOR THE REGULATION OF WIRELESS TELEGRAPHY IN CANADA

(Assented to 20th July, 1905.)

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

Short Title.

1. This Act may be cited as The Wireless Telegraphy Act, 1905.

"Minister" defined.

2. In this Act the expression "Minister" means the Minister of Marine and Fisheries.

Licences for wireless telegraphy.

3. No person shall establish any wireless telegraph station, or install or work any apparatus for wireless telegraphy, in any place or on board any ship registered in Canada except under and in accordance with a licence granted in that behalf by the Minister with the consent of the Governor in Council.

Form and conditions of licences.

2. Every such licence shall be in such form and for such period as the Minister determines, and shall contain the terms, conditions and restrictions on and subject to which the licence is granted; and any such licence may include two or more stations, places or ships.

Application for licence.

3. The Minister may make regulations for prescribing the form and manner in which applications for such licences are to be made, and, with the consent of the Governor in Council, the fees payable on the grant of any such licence.

Penalty for working without licence.

4. Every one who establishes a wireless telegraph station without a licence in that behalf, or installs or works any apparatus for wireless telegraphy without a licence in that behalf, shall be guilty of an offence and be liable, on summary conviction, to a penalty not exceeding fifty dollars, and on conviction on indictment to a fine not exceeding five hundred dollars, or to imprisonment for a term not exceeding twelve months, and in either case shall be liable to forfeit any apparatus for wireless telegraphy installed or worked without a licence; but no proceedings shall be taken against any person under this Act except by order of the Minister.

Prosecution.

Search warrant.

5. If a justice of the peace is satisfied by information on oath that there is reasonable ground for supposing that a wireless telegraph station has been established without licence in that behalf, or that any apparatus for wireless telegraphy has been installed or worked in any place or on board any ship within his jurisdiction without a licence in that behalf, he may grant a search warrant to any

police officer or any officer appointed in that behalf by the Minister and named in the warrant; and a warrant so granted shall authorize the officer named therein to enter and inspect the station, place or ship and to seize any apparatus which appears to him to be used or intended to be used for wireless telegraphy therein.

6. Where the applicant for a licence proves to the satisfaction of the Minister that the sole object of obtaining the licence is to enable him to conduct experiments in wireless telegraphy, a licence for that purpose shall be granted, subject to such special terms, conditions, and restrictions as the Minister thinks proper.

No. 15

10

CHAPTER 126

(R.S.C., 1906)

An Act respecting Telegraphs

PART IV

WIRELESS TELEGRAPHY

39. In this Part "Minister" means the Minister of Marine and Fisheries. 4-5 E. VII., c. 49, s. 2.

40. No person shall establish any wireless telegraph station, or install or work any apparatus for wireless telegraphy, in any place or on board any ship registered in Canada except under and in accordance with a licence granted in that behalf by the Minister with the consent of the Governor in Council. 4-5 E. VII., c. 49, s. 3.

41. Every such licence shall be in such form and for such period as the Minister determines and shall contain the terms, conditions and restrictions on and subject to which the licence is granted.

2. Any such licence may include two or more stations, places or ships. 4-5 E. VII., c. 49, s. 3.

42. Where the applicant for a licence proves to the satisfaction of the Minister that the sole object of obtaining the licence is to enable him to conduct experiments in wireless telegraphy, a licence for that purpose shall be granted, subject to such special terms, conditions and restrictions as the Minister thinks proper. 4-5 E. VII., c. 49, s. 6.

Licences for experimental purposes.

"Minister" defined.

Licences for wireless telegraphy.

Form and conditions of licence.

May include several.

Licences for experimental purposes.

Applica-
tions for
licences.
Fees.

43. The Minister may make regulations for prescribing the form and manner in which applications for licences under this Part are to be made, and, with the consent of the Governor in Council, may prescribe the fees payable on the grant of any such licence. 4-5 E. VII., c. 49, s. 3.

Search
warrant.

44. If a justice of the peace is satisfied by information on oath that there is reasonable ground for supposing that a wireless telegraph station has been established without licence in that behalf, or that any apparatus for wireless telegraphy has been installed or worked in any place or on board any ship within his jurisdiction without a licence in that behalf, he may grant a search warrant to any police officer or any officer appointed in that behalf by the Minister and named in the warrant.

Powers of
officer
under.

2. A warrant so granted shall authorize the officer named therein to enter and inspect the station, place or ship and to seize any apparatus which appears to him to be used or intended to be used for wireless telegraphy therein. 4-5 E. VII., c. 49, s. 5.

Prosecution.

45. No proceedings shall be taken against any person under this Part, except by order of the Minister. 4-5 E. VII., c. 49, s. 4.

Penalty for
working
without
licence.

46. Every one who establishes a wireless telegraph station, or installs or works any apparatus for wireless telegraphy, without a licence in that behalf, shall be guilty of an offence punishable on summary conviction or on indictment and be liable, on summary conviction, to a penalty not exceeding fifty dollars, and on conviction on indictment to a fine not exceeding five hundred dollars or to imprisonment for a term not exceeding twelve months, and in either case shall be liable to forfeit any apparatus for wireless telegraphy installed or worked without a licence. 4-5 E. VII., c. 49, s. 4.

No. 16

3-4 GEORGE V

CHAP. 43

An Act respecting Radiotelegraphy

30

[Assented to 6th June, 1913]

HIS MAJESTY, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

Short title.

1. This Act may be cited as *The Radiotelegraph Act*.

Definitions.

2. In this Act, unless the context otherwise requires,—

“Minister.”

(a) “Minister” means the Minister of the Naval Service (*now Marine and Fisheries*).

"Radio-
telegraph."

(b) "radiotelegraph" includes any wireless system for conveying electric signals or messages including radiotelephones;

"Coast
station."

(c) "coast station" means any radiotelegraph station which is established on land or on board a ship permanently moored and which is used for the exchange of messages and electric signals with ships at sea;

"Land
station."

(d) "land station" means any radiotelegraph station or installation of radiotelegraphic apparatus which is not a coast station or a ship station;

"Ship
station."

(e) "ship station" means any radiotelegraph station established on board a ship which is not permanently moored.

Radio-
telegraph
stations and
apparatus
to be
licensed.

10 **3.** No person shall establish any radiotelegraph station or install or work any radiotelegraph apparatus in any place in Canada or on board any ship registered in Canada except under and in accordance with a licence granted in that behalf by the Minister.

Certain
passenger
steamers
to be
equipped
with
apparatus.

4. From and after the first day of January, nineteen hundred and fourteen, no passenger steamer, whether registered in Canada or not,—

(a) licensed to carry fifty or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than two hundred nautical miles from one port or place to another port or place; or

20 (b) licensed to carry two hundred and fifty or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than ninety nautical miles from one port or place to another port or place; or,

(c) licensed to carry five hundred or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than twenty nautical miles from one port or place to another port or place

30 shall leave or attempt to leave any Canadian port unless such steamer is equipped with an efficient radiotelegraph apparatus, in good working order, capable of transmitting and receiving messages over a distance of at least one hundred nautical miles by night and by day, and in charge of a person fully qualified to take charge of and operate such apparatus.

Penalty.

2. The owner, master or other person in charge of any passenger steamer which leaves or attempts to leave any Canadian port contrary to the provisions of this section shall, on summary conviction, be liable to a fine not exceeding one thousand dollars and costs, and such fine and costs shall constitute a lien upon such passenger steamer.

Exception.

3. This section shall not apply to passenger steamers plying on the rivers of Canada, including the River St. Lawrence as far seaward as a line drawn from Father Point to Point Orient, or on the Northumberland Straits, or on the Georgian Bay, or on the lakes of Canada other than Lakes Ontario, Erie, Huron and Superior, and the provisions of paragraph (c) of subsection 1 of this section shall not apply to steamers making voyages on Lakes Ontario, Erie, Huron, and Superior, the regular route for which is not at any point more than seven miles from the shore.

Exception.

4. This section shall not apply to steamers calling at Canadian ports solely for the purpose of obtaining bunker coal or provisions for the use of such steamer, 10 or through stress of weather, or for repairs.

Rules for transmission of messages.

5. All persons operating land or cable telegraph lines shall transmit all messages destined to or coming from ship stations via coast stations under such rules as may be made by the Board of Railway Commissioners for Canada.

Operators to be British subjects.

Declaration of secrecy.

6. No one shall be employed as a radiotelegraph operator at any coast or land station unless he is a British subject, and all radiotelegraph operators at shore or land stations, or on ship stations on board any vessel registered in Canada, shall take and subscribe a Declaration of Secrecy in the form set forth in the Schedule to this Act, before a judge of any court, a notary public, a justice of the peace or a commissioner for taking affidavits, having authority or jurisdiction within the place 20 where the oath is administered.

Penalty for divulging information.

2. Every person who has made the Declaration of Secrecy and who, either directly or indirectly, divulges to any person, except when lawfully authorized or directed so to do, any information which he acquired by virtue of his employment, is guilty of an offence and shall be liable on summary conviction to a penalty not exceeding one hundred dollars and to imprisonment for a term not exceeding six months.

Penalty for sending false messages and for obstructing communication.

7. Any person who sends or transmits or causes to be sent or transmitted any false or fraudulent distress signal, message, call or radiogram of any kind, or who without lawful excuse interferes with or obstructs any radio communication, shall 30 be guilty of an offence and shall be liable on summary conviction to a penalty not exceeding five hundred dollars and costs or six months' imprisonment.

Search for stations and apparatus illegally established.

8. If a justice of the peace is satisfied by information on oath that there is reasonable ground for supposing that a radiotelegraph station has been established without licence in that behalf, or that any apparatus for radiotelegraphy has been installed or worked in any place or on board any ship registered in Canada within his jurisdiction without a licence in that behalf, he may grant a search warrant to any police officer or any officer appointed in that behalf by the Minister and named in the warrant.

Warrant to enter and seize.

2. A warrant so granted shall authorize the officer named therein to enter and inspect the station, place or ship, and to seize any radiotelegraph apparatus which appears to him to be there used or intended to be there used for radiotelegraphy.

Penalty for establishing stations and apparatus illegally.

9. Every one who establishes a radiotelegraph station or installs or works any radiotelegraph apparatus in violation of the provisions of this Act, or of any regulation made hereunder, shall be liable on summary conviction to a penalty not exceeding fifty dollars, and on conviction on indictment to a fine not exceeding five hundred dollars and to imprisonment for a term not exceeding twelve months, and in either case shall be liable to forfeit to His Majesty, any radiotelegraph apparatus
10 installed or worked without a licence.

Proceedings.

2. No proceedings shall be taken against any person under this section, except by order of the Minister.

Powers of Governor in Council. Assented to 13th June, 1923.

10. The Governor in Council may—

“(a) i. *prescribe the tariff of fees to be paid for licences and for examination for certificate of proficiency held and issued under the provisions of this Act;*

ii. *authorize the payment of a portion of the licence fees collected in certain prescribed licences to a provincial government, private company, or other prescribed party, and, notwithstanding anything to the contrary in any Act, to any Department or employee thereof, for services given in connection with the operation of broadcasting stations and for services performed for the Minister in connection with the licensing and inspection of stations.”*

Governor in Council may authorize payment of portion of licence fees to provincial government, private company or other parties, for services rendered. 20

(b) accede to any international convention in connection with radiotelegraphy, and make such regulations as may be necessary to carry out and make effective the terms of such convention and prescribe penalties recoverable on summary conviction for the violation of such regulations; provided that such penalties shall not exceed five hundred dollars and costs;

(c) make regulations for the censorship and controlling of radiotelegraph
30 signals and messages in case of actual or apprehended war, rebellion, riot or other emergency.

11. The Minister may make regulations—

Regulations made by Minister.

(a) prescribing the form and manner in which applications for licences under this Act are to be made;

(b) classifying ship, coast and land stations and prescribing the type and range of the regular equipment and the emergency equipment to be installed in the several classes of stations;

(c) defining the different kinds of licences that may be issued, their respective forms and the several periods for which they shall continue in force;

(d) prescribing the conditions and restrictions to which the several licences shall respectively be subject;

(e) prescribing the different classes of certificate of proficiency and the class of certificate necessary to qualify persons as operators for the several classes of ship, coast and land stations;

(f) for the examination of persons desiring to obtain certificates of proficiency as radiotelegraph operators and to determine the qualifications in respect of age, term of service, skill, character and otherwise to be required for such certificates;

(g) prescribing the watches to be kept by operators and the number of operators to be maintained and kept at the different classes of ship, coast and land stations;

(h) for the inspection of radiotelegraph stations;

(i) to provide how radiotelegraph apparatus installed upon any foreign or British ship (whether such British ship is registered in Canada or elsewhere) shall be operated while such ship is within the territorial waters of Canada;

(j) to compel all radiotelegraph stations to receive, accept, exchange and transmit signals and messages with such other radiotelegraph stations and in such manner as he may prescribe;

(k) for the effective carrying out of the provisions of this Act.

2. The Minister may, by regulation, authorize the imposition of a penalty not exceeding fifty dollars and costs or three months' imprisonment for the violation of any regulation made under this section, and any such penalty may be recovered upon summary conviction.

12. All regulations made under the provisions of the two sections immediately preceding shall be published in *The Canada Gazette*, and shall be laid before both Houses of Parliament within ten days after the publication thereof if Parliament is then sitting, and if Parliament is not then sitting, then within ten days after the next meeting thereof.

13. His Majesty may, at any time, assume, and for any length of time retain, possession of any radiotelegraph station and of all things necessary to the sufficient working thereof, and may, for the same time, require the exclusive service of the operators and other persons employed in working the same; and the person owning or controlling the station shall give up possession thereof, and the operators and other persons so employed shall during the time of such possession, diligently and faithfully obey such orders, and transmit and receive such signals, calls and radiograms as they are required to receive and transmit by any duly authorized officer of the Government of Canada.

Penalty for violation.

Publication of Regulations. To be laid before Parliament.

Government may take temporary possession of stations, apparatus and operators.

Compensation therefor.

2. If the Minister and the person owning or controlling any radiotelegraph station taken possession of by the Crown under the provisions of this section cannot agree as to the compensation to be paid by the Crown for such taking possession, the Minister shall refer the matter to the Exchequer Court of Canada for adjudication.

R.S. c. 126, Part IV, repealed.

14. Part IV of *The Telegraphs Act* is repealed.

SCHEDULE

DECLARATION OF SECRECY

I, A. B., solemnly and sincerely promise and declare that I will faithfully and honestly fulfil the duties which devolve upon me as radiotelegraph operator, and that I will not, either directly or indirectly, divulge to any person, except when lawfully authorized or directed so to do, any information which I acquire by virtue of my employment as such operator, or which may come to my knowledge through the operation of any radiotelegraphic installation.

Declared before me

at, this

day of, 19

[Signature of declarant]

No. 17

20

TREATY SERIES. No. 8, 1909

INTERNATIONAL RADIOTELEGRAPHIC CONVENTION

SIGNED AT BERLIN, NOVEMBER 3, 1906

[British Ratification deposited at Berlin, June 30, 1908]

Presented to both Houses of Parliament by Command of His Majesty. March 1909

(Translation)

30

International Radiotelegraphic Convention concluded between Great Britain, Germany, the United States of America, the Argentine Republic, Austria, Hungary, Belgium, Brazil, Bulgaria, Chili, Denmark, Spain, France, Greece, Italy, Japan, Mexico, Monaco, Norway, the Netherlands, Persia, Portugal, Roumania, Russia, Sweden, Turkey, and Uruguay.*

*NOTE.—An additional Agreement of the same date respecting Intercommunication between "Ship Stations" was not signed by Great Britain (see Parliamentary Paper laid by His Majesty's Postmaster-General, November 1906) (368).

THE undersigned, Plenipotentiaries of the Governments of the countries enumerated above, being assembled in conference at Berlin, have, by common consent and subject to ratification, agreed to the following Convention:—

ARTICLE 1

The High Contracting Parties undertake to apply the provisions of the present Convention at all radiotelegraph stations—coast stations and ship stations—open for the service of public correspondence between the land and ships at sea which are established or worked by the Contracting Parties.

They undertake, moreover, to impose the observance of these provisions upon
 10 private enterprises authorized either to establish or work radiotelegraph coast stations open for the service of public correspondence between the land and ships at sea, or to establish or work radiotelegraph stations, whether open for public correspondence or not, on board ships which carry their flag.

ARTICLE 2

The term “Coast Station” means any radiotelegraph station which is established on land or on board a ship permanently moored, and which is used for the exchange of correspondence with ships at sea.

The term “Ship Station” means any radiotelegraph station established on board a ship which is not permanently moored.

ARTICLE 3

20

Coast stations and ship stations are bound to exchange radiotelegrams reciprocally without regard to the particular system of radiotelegraphy adopted by these stations.

ARTICLE 4

Notwithstanding the provisions of Article 3 a station may be appropriated to a service of public correspondence of a restricted character, determined by the object of the correspondence, or by other circumstances independent of the system employed.

ARTICLE 5

30 Each of the High Contracting Parties undertakes to cause its coast stations to be connected with the telegraph system by means of special wires, or at least to take such other measures as will ensure an expeditious exchange of traffic between the coast stations and the telegraph system.

ARTICLE 6

The High Contracting Parties shall acquaint one another mutually with the names of the coast stations and ship stations indicated in Article 1, as well as with all such particulars, proper for facilitating and accelerating the exchange of radiotelegrams, as shall be specified in the regulations.

ARTICLE 7

Each of the High Contracting Parties reserves the right of prescribing or permitting the establishment and working, at the stations indicated in Article 1— independently of the installation of which particulars are published in accordance
10 with Article 6—of other arrangements designed for radiotelegraphic transmission of a special character, without publishing the particulars of these arrangements.

ARTICLE 8

The working of radiotelegraph stations shall be organized, as far as possible, in such a manner as not to interfere with the working of other stations of the kind.

ARTICLE 9

Radiotelegraph stations are bound to accept with absolute priority calls of distress from ships, to answer such calls with similar priority, and to take the necessary steps with regard to them.

ARTICLE 10

20 The total charge for radiotelegrams comprises:—

1. The charge proper to the transmission over sea, viz.:

- (a) The "coast charge" which belongs to the coast station;
- (b) The "ship charge" which belongs to the ship station.

2. The charge for transmission over the lines of the telegraph system, calculated according to the general rules.

The rate of the coast charge is subject to the approval of the Government to whose authority the coast station is subject, and the rate of the ship charge to the approval of the Government whose flag the ship flies.

Each of these two charges shall be fixed according to a tariff per word pure and
30 simple, with the option of fixing a minimum charge per telegram, on the basis of an equitable remuneration for the radiotelegraphic work. Each of these charges must not exceed a maximum to be fixed by the High Contracting Parties.

Nevertheless, each of the High Contracting Parties has the right to authorize charges exceeding this maximum in the case of stations of a range exceeding 800 kilometres, or of stations which are exceptionally costly by reason of the material conditions of their installation and working.

As regards radiotelegrams originating in or destined for a country with whose coast stations they are directly exchanged, the High Contracting Parties shall acquaint one another mutually with the charges applicable to transmission over the lines of their telegraph systems. The charges shall be those which follow from the principle that the coast station is to be regarded as the station of origin or of
10 destination.

ARTICLE 11

The provisions of the present Convention are completed by Regulations which have the same validity and come into force at the same time as the Convention.

The provisions of the present Convention and of the Regulations relative thereto may be modified at any time by the High Contracting Parties by common consent. Conferences of Plenipotentiaries or simple administrative Conferences, according as the Convention or the Regulations are in question, shall take place periodically; each Conference will itself fix the place and date of the following Conference.

20

ARTICLE 12

These Conferences shall be composed of delegates of the Governments of the contracting countries.

In the deliberations, each country shall have one vote only.

If a Government adheres to the Convention for its Colonies, Possessions or Protectorates, subsequent Conferences may determine that the whole or a part of these Colonies, Possessions or Protectorates is to be regarded as forming a Country for the purposes of the foregoing paragraph. But the number of votes which one Government, including its Colonies, Possessions or Protectorates, may exercise cannot exceed six.

30

ARTICLE 13

An International Bureau shall be entrusted with the duty of collecting, arranging, and publishing information of every kind relative to radiotelegraphy; of circulating in proper form proposals for the modification of the Convention and Regulations; of notifying the alterations adopted, and, generally, of carrying out any work bearing on matters of administration which may be assigned to it in the interests of international radiotelegraphy.

The expenses of this institution shall be borne by all the contracting countries.

ARTICLE 14

Each of the High Contracting Parties reserves the right of prescribing the conditions on which it admits radiotelegrams from or to a station—whether ship or coast—which is not subject to the provisions of the present Convention.

If a radiotelegram is admitted, the ordinary charges must be applied to it.

Every radiotelegram originating at a ship station and received by a coast station of a contracting country, or accepted in transit by the Administration of a contracting country, must be sent forward.

Every radiotelegram intended for a ship must also be sent forward if the
10 Administration of a contracting country has accepted it from the sender, or if the Administration of a contracting country has accepted it in transit from a non-contracting country, subject to the right of the coast station to refuse to transmit it to a ship station belonging to a non-contracting country.

ARTICLE 15

The provisions of Articles 8 and 9 of this Convention are also applicable to radiotelegraph installations other than those indicated in Article 1.

ARTICLE 16

Governments which have not taken part in the present Convention shall be allowed to adhere thereto on their request.

20 This adhesion shall be notified through the diplomatic channel to the contracting Government under whose auspices the last Conference has been held, and by it to all the others.

Adhesion involves as a matter of right acceptance of all the clauses of the present Convention and admission to all the advantages stipulated therein.

ARTICLE 17

The provisions of Articles 1, 2, 3, 5, 6, 7, 8, 11, 12, and 17 of the International Telegraph Convention of St. Petersburg of the 10/22 July 1875 are applicable to international radiotelegraphy.

ARTICLE 18

30 In case of difference between two or more of the Contracting Governments concerning the interpretation or execution of the present Convention or of the Regulations provided for in Article 11, the question at issue may, by common consent, be submitted to arbitration. In that event, each of the Governments concerned shall choose another not interested in the question.

The decision of the arbitrators shall be determined by an absolute majority of votes.

In the event of an equality of votes, the arbitrators shall choose, in order to settle the difference, another Contracting Government, also without interest in the question. In default of agreement as to this choice, each arbitrator shall propose another disinterested Contracting Government; and lots shall be drawn between the Governments proposed. The drawing of the lots appertains to the Government on whose territory the International Bureau provided for in Article 13 carries on its work.

10

ARTICLE 19

The High Contracting Parties undertake to carry out or to propose to their respective Legislatures the measures necessary to ensure the execution of the present Convention.

ARTICLE 20

The High Contracting Parties shall communicate to one another the laws which may have already been adopted or which may hereafter come into force in their countries relative to the subject matter of the present Convention.

ARTICLE 21

The High Contracting Parties retain their full liberty concerning radiotelegraph
20 installations not covered by Article 1, and, in particular, concerning naval and military installations, which are subject only to the obligations of Articles 8 and 9 of the present Convention.

Nevertheless, when these installations carry on public correspondence, they shall conform, for the performance of this service, to the stipulations of the Regulations so far as concerns the manner of transmission and the accounting.

ARTICLE 22

The present Convention shall come into operation on and from the 1st July 1908, and shall remain in force for an indefinite period, or until the expiration of a year from the date of its denunciation.

30

Denunciation only takes effect as regards the Government in whose name it is made. The Convention shall remain in force as regards the other Contracting Parties.

ARTICLE 23

The present Convention shall be ratified and the ratifications shall be deposited at Berlin with as little delay as possible.

In witness whereof the respective Plenipotentiaries have signed the Convention in a single copy, which will remain deposited in the archives of the Imperial German Government, and of which a copy will be sent to each Party.

Done at Berlin, the 3rd November 1906.

For Great Britain:

H. BABINGTON SMITH.
A. E. BETHELL.
R. L. HIPPISEY.

For Germany:

KRAETKE.
SYDOW.

For the United States of America:

CHARLEMAGNE TOWER.
H. N. MANNEY.
JAMES ALLEN.
JOHN I. WATERBURY.

For the Argentine Republic:

J. OLMÍ.

For Austria:

BARTH.
FRIES.

For Hungary:

PIERRE DE SZALAY.
Dr. DE HENNYEY.
HOLLOS.

For Belgium:

F. DELARGE.
E. BUELS.

For Brazil:

CESAR DE CAMPOS.

For Bulgaria:

IV. STOYANOVITCH.

For Chili:

J. MUNOZ HURTADO.
J. MERY.

For Denmark:

N. R. MEYER.
I. A. VOEHTZ.

For Spain:

IGNACIO MURCIA.
RAMON ESTRADA.
RAFAEL RAVENA.
ISIDRO CALVO.
MANUEL NORIEGA.
ANTONIO PELAEZ-CAM-
POMANES.

For France:

J. BORDELONGUE.
L. GASCHARD.
BOULANGER.
A. DEVOS.

For Greece:

T. ARGYROPOULOS.

For Italy:

J. COLOMBO.

For Japan:

OSUKE ASANO.
ROKURE YASHIRO.
SHUNKICHI KIMURA.
ZIRO TANAKA.
SABURO HYAKUTAKE.

For Mexico:

JOSE M. PEREZ.

For Monaco:

J. DEPELLEY.

For Norway:

HEFTYE.
O. T. EIDEM.

For the Netherlands:

KRUYT.
PERK.
HOVEN.

For Persia:

HOVHANNES KHAN.

For Portugal:

PAULO BENJAMIN CABRAL.
CABRAL.

For Roumania:

GR. CERKEZ.

For Russia:

A. EICHHOLZ.
A. EULER.
VICTOR BILIBINE.
A. REMMERT.
W. KEDRINE.

For Sweden:

HERMAN RYDIN.
A. HAMILTON.

For Turkey:

NAZIF BEY.

For Uruguay:

F. A. COSTANZO.

(Translation)

Final Protocol

At the moment of proceeding to the signature of the Convention adopted by the International Radiotelegraphic Conference of Berlin, the undersigned Plenipotentiaries have agreed as follows:—

I

The High Contracting Parties agree that at the next Conference the number of votes which each country shall have (Article 12 of the Convention) shall be determined at the outset of the deliberations, so that the Colonies, Possessions, or Protectorates admitted to the enjoyment of votes may be able to exercise their right of voting throughout all the proceedings of that Conference.

The decision arrived at shall have immediate effect, and shall remain in force until it is varied by a later Conference.

So far as the next Conference is concerned, proposals for the admission of new votes in favour of Colonies, Possessions, or Protectorates which may have adhered to the Convention shall be addressed to the International Bureau six months at least before the date of meeting of that Conference. These proposals shall immediately be notified to the other Contracting Governments, which may, within a period of two months from the receipt of the notification, put forward similar proposals.

II

Each Contracting Government may reserve the power of designating, according to circumstances, certain coast stations which shall be exempt from the obligation imposed by Article 3 of the Convention, on condition that, on and from the applica-

tion of this provision, there shall be open on its territory one or more stations subject to the obligations of Article 3 and providing for the radiotelegraphic service in the region served by the exempted stations in such a manner as to satisfy the requirements of public correspondence. The Governments which wish to reserve this power must notify their desire in the form prescribed in the second paragraph of Article 16 of the Convention, not later than three months before the Convention comes into operation, or, in the case of later adhesions, at the moment of adhesion.

The countries whose names appear below declare, at once, that they will not reserve this power:—

10	Germany.	Brazil.	Netherlands.
	United States of	Bulgaria.	Roumania.
	America.	Chili.	Russia.
	Argentine Republic.	Greece.	Sweden.
	Austria.	Mexico.	Uruguay.
	Hungary.	Monaco.	
	Belgium.	Norway.	

III

The manner of carrying out the provisions of the preceding Article is left to the Government which avails itself of the right of exemption; this Government has full
20 liberty to decide, from time to time, according to its own judgment, how many and what stations shall be exempted. This Government has the same liberty in regard to the manner of carrying out the condition relative to the keeping open of other stations subject to the obligations of Article 3 and providing for the radiotelegraphic service in the region served by the exempted stations in such a manner as to satisfy the requirements of public correspondence.

IV

It is understood that, in order that scientific progress may not be impeded, the provisions of Article 3 of the Convention do not prevent the possible use of a system of radiotelegraphy incapable of communicating with other systems, provided always
30 that this incapacity is due to the specific nature of the system, and is not the result of arrangements adopted solely with a view to prevent intercommunication.

V

The adhesion to the Convention of the Government of a country having Colonies, Possessions, or Protectorates does not imply the adhesion of its Colonies, Possessions, or Protectorates in the absence of a declaration to that effect on the part of such Government. A separate adhesion or a separate denunciation may be made

in respect of the whole of such Colonies, Possessions, or Protectorates, taken together, or in respect of each of them separately, under the conditions laid down in Articles 16 and 22 of the Convention.

It is understood that stations on board ships having their port of registry in a Colony, Possession, or Protectorate may be deemed to be subject to the authority of such Colony, Possession, or Protectorate.

VI

Note has been taken of the following declaration:—

The Italian delegation, while signing the Convention, must nevertheless make
10 the reservation that the Convention can only be ratified by Italy at the date of expiration of its contracts with Mr. Marconi and his Company, or at an earlier date if the Italian Government is able to arrange accordingly by negotiation with Mr. Marconi and his Company.

VII

The Convention, in the event of one or more of the High Contracting Parties not ratifying it, shall be none the less valid for the Parties which shall have ratified it.

In witness whereof, the undermentioned Plenipotentiaries have drawn up the present Final Protocol, which shall have the same force and the same validity as if
20 and they have signed it in a single copy, which will remain deposited in the archives of the Imperial German Government, and of which a copy will be sent to each Party.

Done at Berlin, the 3rd November, 1906.

For Great Britain:

H. BABINGTON SMITH.

A. E. BETHELL.

R. L. HIPPISELY.

For Germany:

KRAETKE.

SYDOW.

For the United States of America:

CHARLEMANGE TOWER.

H. N. MANNEY.

JAMES ALLEN.

JOHN I. WATERBURY.

For the Argentine Republic:

J. OLMÍ.

For Austria:

BARTH.

FRIES.

For Hungary:

PIERRE DE SZALAY.

DR. DE HENNYEY.

HOLLOS.

For Belgium:

F. DELARGE.

E. BUELS.

- For Brazil:
CESAR DE CAMPOS.
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IV. STOYANOVITCH.
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HOVEN.
A. REMMERT.
W. KÉDRINE.
- For Sweden:
HERMAN RYDIN.
A. HAMILTON.
- For Turkey:
NAZIF BEY.
- For Uruguay:
F. A. COSTANZO.

(Translation)

Service Regulations annexed to the International Radiotelegraphic Convention

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1. ORGANIZATION OF RADIOTELEGRAPH STATIONS

I.

The choice of the radiotelegraphic apparatus and arrangements to be used by coast stations and ship stations is unrestricted. The installation of these stations must keep pace as far as possible with scientific and technical progress.

II.

30 Two wave-lengths, one of 300 and the other of 600 metres, are allowed for general public correspondence. Every coast station open for this service employs one or other of these two wave-lengths. During the whole period for which it is open for service, every station must be in a position to receive calls made by means

of its own wave-length, and it must not make use of any other wave-length for the service of general public correspondence. Nevertheless, each Government may authorize the use at any coast station of other wave-lengths for the purpose of providing a long-distance service, or a service other than that of general public correspondence, established in accordance with the provisions of the Convention, on condition that these wave-lengths do not exceed 600 metres or do exceed 1,600 metres.

III

1. The normal wave-length for ship stations is 300 metres. Every ship station
10 must be installed in such a way as to be capable of using this wave-length. Other wave-lengths may be used by the stations on condition that they do not exceed 600 metres.

2. Ships of small tonnage, which it would be materially impossible to equip with plant producing a wave-length of 300 metres, may be authorized to use a shorter wave-length.

IV

1. By the agency of the International Bureau, a list shall be prepared of the radiotelegraph stations indicated in Article 1 of the Convention. This list shall give the following particulars regarding each station:—

- 20 (1) Name, nationality, and geographical position in the case of coast stations; name, nationality, distinguishing signal under the International Code and indication of the ship's port of registry, in the case of ship stations;
- (2) Call-signal (the call-signals must be distinguished from one another and must each be composed of a group of three letters);
- (3) Normal range;
- (4) System of radiotelegraphy;
- (5) Nature of receiving apparatus (recording, sound-reading, or other apparatus);
- (6) Wave-lengths used by the station (the normal wave-length is underlined);
- 30 (7) Nature of the service performed by the station:—
- General public correspondence;
- Restricted public correspondence (correspondence with the ships; correspondence with the shipping lines; correspondence with ships equipped with apparatus of the system; &c);
- Long-distance public correspondence;
- Private correspondence of the owners of the station;
- Special correspondence (correspondence of an exclusively official nature); &c.;
- (8) Hours of service;
- (9) Coast or ship charge.

2. The list shall also comprise such particulars with regard to radiotelegraph stations other than those indicated in Article 1 of the Convention as are communicated to the International Bureau by the Administration to whose authority these stations are subject.

V

The stations indicated in Article 1 of the Convention are prohibited from exchanging superfluous signals and words. Trials and practice are only permitted at these stations in so far as they do not interfere with the service of other stations.

VI

10 1. No ship station may be established or worked by any private enterprise without the authorization of the Government to whose authority the ship is subject. This authorization is given by a licence issued by that Government.

2. Every ship station which is authorized must satisfy the following conditions:—

- (a) The system used must be a syn-tonized system;
- (b) The speed of transmission and reception must, in normal circumstances, not be less than 12 words a minute, five letters being counted as one word;
- (c) The power imparted to the radiotelegraphic apparatus must not, in normal circumstances, exceed one kilowatt. Power in excess of one kilowatt may be used
20 if the ship finds it necessary to exchange messages at a distance of more than 300 kilometres from the nearest coast station, or if, by reason of intervening obstacles, communication can only be effected by an increase of power.

3. The service of the ship station must be carried on by a telegraphist holding a certificate issued by the Government to whose authority the ship is subject. This certificate testifies to the technical proficiency of the telegraphist as regards—

- (a) The adjustment of apparatus;
- (b) Transmission and sound-reading at a speed which must not fall short of
20 words a minute;
- (c) Knowledge of the regulations applicable to the exchange of radiotelegraphic
30 traffic.

4. In addition, the certificate testifies that the Government has bound the telegraphist to the obligation of preserving the secrecy of correspondence.

VII

1. If an Administration has information of a breach of the Convention or of the Regulations committed at one of the stations which it has authorized, it shall verify the facts and fix the responsibility.

In the case of ship stations, if the responsibility falls on the telegraphist, the Administration shall take the necessary steps, and, if need be, withdraw his certificate. If it is proved that the breach was due to the condition of the apparatus, or to instructions given to the telegraphist, similar steps shall be taken with regard to the licence granted to the ship.

2. In the event of repeated breaches by the same ship, if the representations made to the Administration to whose authority the ship is subject by another Administration remain without effect, the latter is empowered, after giving notice, to authorize its coast stations to refuse communications from the ship in question.
- 10 In case of difference between the two Administrations, the question shall be submitted to arbitration at the instance of one of the Governments in question. The procedure followed shall be that indicated in Article 18 of the Convention.

2. DURATION OF SERVICE AT COAST STATIONS

VIII

1. The service at coast stations is, as far as possible, permanent day and night, without interruption.

Nevertheless, certain coast stations may provide a service of limited duration. Each Administration fixes the hours of service.

2. Those coast stations at which the service is not permanent must not close
20 before they have transmitted all their radiotelegrams to such ships as are within their range of transmission, and have received from these ships all the radiotelegrams of which notice has been given. This provision applies also when ships notify their presence before work has actually ceased.

3. FORM AND ACCEPTANCE OF RADIOTELEGRAMS

IX

- If part of the route followed by a radiotelegram lies over telegraph lines or through radiotelegraph stations belonging to a non-contracting country, the radiotelegram may be forwarded on condition that the Administrations of the countries to which these lines or stations belong have at the least declared their willingness
30 to apply, when occasion arises, those provisions of the Convention and Regulations which are essential for the proper disposal of radiotelegrams, and provided also that adequate arrangements are made for accounting.

X

1. Radiotelegrams bear the service instruction "Radio" in the preamble.
2. In the transmission of radiotelegrams from ship stations to coast stations the date and the time of handing in are omitted from the preamble.

On retransmission over the ordinary telegraph system, the coast station inserts, as the indication of the office of origin, its own name followed by that of the ship, and gives, as the time of handing in, the time of receipt.

XI

The address of radiotelegrams for ships at sea should be as complete as possible. It must contain the following:—

- (a) Name of addressee, with further particulars, if necessary.
- (b) Name of ship as it appears in the list, supplemented, in the case of ships bearing the same name, by the nationality of the ship, and, if necessary, its distinguishing signal under the International Code.
- (c) Name of coast station as it appears in the list.

4. CHARGES

XII

The coast charge must not exceed 60 centimes a word, nor the ship charge 40 centimes a word.

A minimum not exceeding the coast charge or the ship charge for a radiotelegram of 10 words may be fixed either for the coast charge or for the ship charge.

XIII

A country on whose territory a coast station is established which serves as a medium for the exchange of radiotelegrams between a ship station and another country is considered, for the purpose of applying the telegraph rates, as the country of origin or of destination of those radiotelegrams and not as a country of transit.

5. COLLECTION OF CHARGES

XIV

The whole charge for radiotelegrams is collected from the sender.

For this purpose ship stations must have the necessary tariffs. Nevertheless they have the right to obtain information from coast stations with regard to the assessment of the charge for radiotelegrams in respect of which they do not possess all the requisite particulars.

30

6. TRANSMISSION OF RADIOTELEGRAMS

(a) *Signals*

XV

The signals used are those of the International Morse Code.

XVI

Ships in distress make use of the following signal:—

. . . — — — . . .

repeated at short intervals.

As soon as a station perceives the signal of distress it must suspend all correspondence and must not resume work until it has made sure that the communication consequent upon the call for assistance has been completed.

When a ship in distress adds, after a series of signals of distress, the call-signal of a particular station, the duty of answering the call rests with that station only.
 10 Failing any mention of a particular station in the signal of distress, every station which perceives the call is bound to answer it.

XVII

1. The call-signal followed by the letters . — — . . — . — . . . " P R B " signifies that the ship or the station making the call wishes to communicate with the station called by means of the International Code of Signals.

The combination of the letters " P R B " is prohibited, as a service signal, for any other purpose than that above indicated.

2. The International Code of Signals may be used for radiotelegrams.

Those which are addressed to a radiotelegraph station for onward transmission
 20 are not translated by that station.

(b) Order of Transmission

XVIII

Between two stations radiotelegrams of the same rank are transmitted separately in alternate order or in series consisting of several radiotelegrams, as may be determined by the coast station, provided that the time occupied in the transmission of any one series does not exceed 20 minutes.

(c) Calling of Radiotelegraph Stations and Transmission of Radiotelegrams

XIX

1. As a general rule, it is the ship station which calls the coast station.

30 2. The call must only be made, as a general rule, when the distance of the ship from the coast station is less than 75 per cent of the normal range of the latter.

3. Before beginning to call, the ship station must adjust its receiving apparatus to the highest possible degree of sensitiveness and make sure that the coast station which it wishes to call is not engaged in communication. If it finds that transmission is taking place it awaits the first break.

4. The ship station uses, for calling purposes, the normal wave-length of the coast station.

5. If in spite of these precautions the exchange of public radiotelegraphic traffic is interfered with, the call must cease at the first request made by a coast station open for public correspondence. This station must then indicate approximately how long it will be necessary to wait.

XX

1. The call comprises the signal — . — . —, the call-signal of the coast station thrice repeated, the word "de" followed by the call-signal of the transmitting
10 station thrice repeated.

2. The station called answers by giving the signal — . — . —, followed by the call-signal of the calling station thrice repeated, by the word "de," by its own call-signal, and by the signal — . —.

XXI

If a station called does not reply as the result of the call (Article XX) thrice repeated at intervals of two minutes, the call can only be renewed after an interval of half-an-hour, the station making the call having first ascertained that no radio-telegraphic communication is in progress.

20

XXII

1. As soon as the coast station has answered, the ship station makes known—

- (a) The distance of the ship from the coast station in nautical miles.
- (b) Its true bearings in degrees reckoned from 0 to 360.
- (c) Its true course in degrees reckoned from 0 to 360.
- (d) Its speed in nautical miles.
- (e) The number of words which it has to transmit.

2. The coast station replies by indicating the number of words which it has to transmit to the ship.

3. If transmission cannot take place at once the coast station informs the ship
30 station approximately how long it will be necessary to wait.

XXIII

When a coast station receives calls from several ship stations, the coast station decides the order in which the ship stations shall be allowed to transmit their correspondence.

The sole consideration which must govern the coast station in settling this order is the necessity of allowing every station concerned to exchange the greatest possible number of radiotelegrams.

XXIV

Before beginning the exchange of correspondence the coast station informs the ship station whether transmission is to take place in alternate order or in series (Article XVIII); it then begins transmission or follows up these service instructions with the signal — . — (invitation to transmit).

XXV

The transmission of a radiotelegram is preceded by the signal — . — . — and terminated by the signal . — . — ., followed by the call-signal of the transmitting station.

10

XXVI

When the radiotelegram to be transmitted contains more than 40 words the transmitting station interrupts transmission after each series of about 20 words with a mark of interrogation . . — — . ., and only continues transmission after having obtained from the receiving station the repetition of the last word duly received, followed by a mark of interrogation.

In the case of transmission by series, an acknowledgment of receipt is given after each radiotelegram.

XXVII

1. When the signals become doubtful, it is important that recourse should be had to all possible means for effecting transmission. For this purpose the radiotelegram is repeated, at the request of the receiving station, but not more than three times. If, in spite of this triple transmission, the signals are still unreadable, the radiotelegram is cancelled. If an acknowledgment of receipt is not received the transmitting station again calls the receiving station. If no reply is made after three calls, transmission is not continued.

2. If the receiving station, in spite of defective reception, thinks that the radiotelegram may be delivered, it inserts the service instruction "Reception doubtful" at the end of the preamble and sends on the radiotelegram.

XXVIII

30 All stations are bound to exchange traffic with the minimum expenditure of energy required for obtaining effective communication.

(d) Acknowledgment of Receipt and End of Work

XXIX

1. The acknowledgment of receipt is given in the form prescribed by the International Telegraph Regulations preceded by the call-signal of the transmitting station and followed by the call-signal of the receiving station.

The end of work between two stations is indicated by each station by means of the signal . . . — . — followed by its call-signal.

(e) Route to be followed by Radiotelegrams

XXX

1. As a general principle, the ship station transmits its radiotelegrams to the nearest coast station.

2. Nevertheless, a sender on board ship is at liberty to indicate the coast station by which he desires his radiotelegram to be despatched.

The ship station then waits until this coast station becomes the nearest. If 10 this condition cannot be fulfilled, the sender's wishes are only complied with if transmission can be effected without interfering with the service of other stations.

7. DELIVERY OF RADIOTELEGRAMS

XXXI

When for any reason whatever a radiotelegram from a ship at sea cannot be delivered to the addressee, an advice of non-delivery is sent. This advice is transmitted, if possible, to the ship. When a radiotelegram reaching a ship station cannot be delivered, that station informs the office of origin by means of a service advice. This advice is transmitted, as far as possible, to the coast station through which the radiotelegram has been received, or, if the circumstances require it, to 20 the nearest coast station.

XXXII

If the ship to which a radiotelegram is addressed has not notified its presence to the coast station within the period indicated by the sender, or, failing such indication, before the morning of the 29th day, the coast station advises the sender to that effect.

The latter has the right to request, by a paid telegraphic or postal service message addressed to the coast station, that his radiotelegram may be retained for a further period of 30 days for transmission to the ship, and so on. Failing a request to this effect, the radiotelegram is treated as undeliverable at the end of the 30th 30 day (the day of handing in not included).

Nevertheless, if the coast station knows that the ship has passed beyond its range of transmission before the radiotelegram could be transmitted to it, that station advises the sender accordingly.

8. SPECIAL TELEGRAMS

XXXIII

The following are not admitted:—

- (a) Telegrams with prepaid replies.
- (b) Telegraph Money Orders.
- (c) Collated telegrams.
- (d) Telegrams with acknowledgment of receipt.
- (e) Telegrams "to follow."
- (f) Paid service telegrams, except as regards transmission over the ordinary
10 telegraph system.
- (g) Urgent telegrams, except as regards transmission over the ordinary telegraph system, subject to the provisions of the International Telegraph Regulations.
- (h) Telegrams to be delivered by express or by post.

9. RECORDS

XXXIV

The originals of radiotelegrams and the documents relating to them retained by the Administrations or private enterprises are preserved for at least 12 months, reckoned from the month following that of handing in, with all necessary precautions to secure secrecy.

- 20 These originals and documents are, as far as possible, sent at least once a month by ship stations to the Administrations to whose authority they are subject.

10. REFUNDS AND REIMBURSEMENTS

XXXV

1. Refunds and reimbursements are governed by the provisions of the International Telegraph Regulations, regard being had to the restrictions indicated in Article XXXIII of the present Regulations and subject to the following reservations:—

- 30 The time occupied in transmission by radiotelegraphy and the time during which the radiotelegram remains at the coast station or at the ship station are not reckoned in the periods of delay which give rise to refunds and reimbursements.

The reimbursement is borne by the different Administrations or private enterprises which have taken part in the transmission of the radiotelegram, each Administration foregoing its proportion of the charge. Nevertheless, radiotelegrams which come under Articles VII and VIII of the Convention of St. Petersburg remain subject

to the provisions of the International Telegraph Regulations, except when it is due to an error of service that such radiotelegrams have been accepted.

2. When the acknowledgment of receipt of a radiotelegram has not reached the station which transmitted the radiotelegram, the charge is only refunded after it has been proved that the radiotelegram is one which gives rise to reimbursement.

11. ACCOUNTS

XXXVI

1. The coast and ship charges do not enter into the accounts for which provision is made in the International Telegraph Regulations.

10 2. The accounts relating to these charges are settled by the Administrations of the Governments concerned. They are prepared by the Administrations responsible for the coast stations and are communicated by them to the Administrations concerned.

2. In respect of transmission over the ordinary telegraph system a radiotelegram is treated, for accounting purposes, in accordance with the International Telegraph Regulations.

3. In respect of radiotelegrams from ships, the Administration responsible for the ship station is debited by the Administration responsible for the coast station with the coast and ordinary telegraph charges collected on board the ship.

20 4. In respect of radiotelegrams addressed to ships, the Administration which has collected the charges is debited directly by the Administration responsible for the coast station with the coast and ship charges. The latter Administration credits the Administration responsible for the ship with the ship charge.

Nevertheless, in cases where the Administration which has collected the charges is that responsible for the ship station, the ship charge is not debited by the Administration responsible for the coast station.

4. The monthly accounts on which the special accounting in respect of radiotelegrams is based are prepared radiotelegram by radiotelegram, with all the necessary particulars, within six months from the month to which they relate.

30 5. The Governments reserve the right of making between themselves and in their dealings with private enterprises (organizations working radiotelegraph stations, shipping companies, &c.) special arrangements for the adoption of other methods of accounting.

12. INTERNATIONAL BUREAU

XXXVII

The International Bureau of Telegraph Administrations will be entrusted, subject to the consent of the Government of the Swiss Confederation and to the approval of the Telegraph Union, with the functions specified in Article 13 of the Convention.

The additional expenses resulting from the exercise by the International Bureau of its functions in respect of radiotelegraphy must not exceed 40,000 francs per annum, not including extraordinary expenditure occasioned by the assembling of
10 an International Conference.

These expenses form the subject of a special account, and the provisions of the International Telegraph Regulations are applicable to them. Nevertheless, pending the meeting of the next Conference, each contracting Government shall notify to the International Bureau the class in which it wishes to be included.

XXXVIII

The various Administrations shall supply the International Bureau with a Return in conformity with the annexed model, containing the particulars specified therein in respect of the stations indicated in Article IV of the Regulations. Subsequent modifications and additions shall be communicated by the Administrations
20 to the International Bureau between the 1st and 10th of each month. By means of the information thus communicated the International Bureau shall prepare a list and keep it up to date. The list and its supplements shall be printed and distributed to the Administrations concerned; they may also be sold to the public at cost price.

The International Bureau shall take care that the same call-signals are not adopted for different radiotelegraph stations.

13. MISCELLANEOUS PROVISIONS

XXXIX

The Administrations shall facilitate arrangements for communicating to such maritime news agencies as they think fit such information respecting wrecks and
30 shipping casualties, or of general interest for purposes of navigation, as can properly be communicated to them by their coast stations.

XL

Traffic exchanged between the ship stations indicated in Article 1 of the Convention must be so regulated as not to interfere with the service of coast stations, the latter being entitled as a general rule to priority for purposes of public correspondence.

XLI

1. In the absence of special arrangements between the parties concerned, the provisions of the present regulations are applicable, by analogy, to the exchange of radiotelegraphic traffic between two ships at sea, with the following exceptions:—

(a) Article XIV.—The ship charge accruing to the transmitting ship is collected from the sender, and that accruing to the receiving ship is collected from the addressee.

(b) Art. XVIII.—The order of transmission is settled on each occasion by mutual agreement between the communicating stations.

(c) Art. XXXVI.—The charges in respect of the radiotelegrams in question do not enter into the accounts provided for in Article XXXVI, these charges being retained by the Administrations which have collected them.

2. The retransmission of radiotelegrams exchange between ships at sea is subject to special arrangements between the parties concerned.

XLII

The provisions of the International Telegraph Regulations are applicable, by analogy, to radiotelegraphic correspondence in so far as they are not inconsistent with the provisions of the present Regulations.

In conformity with Article XI of the Convention of Berlin, these Regulations shall come into force on the 1st July, 1908.

20 In witness whereof the respective Plenipotentiaries have signed the Regulations in a single copy, which will remain deposited in the archives of the Imperial German Government, and of which a copy shall be sent to each Party.

Done at Berlin, the 3rd November, 1906.

For Great Britain:

H. BABINGTON SMITH.

A. E. BETHELL.

R. I. HIPPISEY.

For Germany:

KRAETKE.

SYDOW.

For the United States of America:

CHARLEMAGNE TOWER.

H. N. MANNEY.

JAMES ALLEN.

JOHN I. WATERBURY.

For the Argentine Republic:

J. OLMÍ.

For Austria:

BARTH.

FRIES.

For Hungary:

PIERRE DE SZALAY.

Dr. DE HENNYEY.

HOLLOS.

For Belgium:

F. DELARGE.

E. BUELS.

- For Brazil:
CESAR DE CAMPOS.
- For Bulgaria:
IV. STOYANOVITCH.
- For Chile:
J. MUNOZ HURTADO.
J. MERY.
- For Denmark:
N. R. MEYER.
I. A. VOEHTZ.
- For Spain:
IGNACIO MURCIA.
RAMON ESTRADA.
RAFAEL RAVENA.
ISIDRO CALVO.
MANUEL NORIEGA.
ANTONIO PELAEZ - CAM
POMANES.
- For France:
J. BORDELONGUE.
L. GASCHARD.
BOULANGER.
A. DEVOS.
- For Greece:
T. ARGYROPOULOS.
- For Italy:
J. COLOMBO.
- For Japan:
OSUKE ASANO.
ROKURE YASHIRO.
SHUNKICHI KIMURA.
ZIRO TANAKA.
SABURO HYAKUTAKE.
- For Mexico:
JOSE M. PEREZ.
- For Monaco:
J. DEPELLEY.
- For Norway:
HEFTYE,
O. T. EIDEM.
- For the Netherlands:
KRUYT.
PERK.
HOVEN.
- For Persia:
HOVHANNES KHAN.
- For Portugal:
PAULO BENJAMIN CABRAL.
- For Roumania:
GR. CERKEZ.
- For Russia:
A. EICHHOLZ.
A. EULER.
VICTOR BILIBINE.
A. REMMERT.
W. KEDRINE.
- For Sweden:
HERMAN RYDIN.
A. HAMILTON.
- For Turkey:
NAZIF BEY.
- For Uruguay:
F. A. COSTANZO.

RATIFICATIONS

The Ratifications of the following States have, up to the present, been deposited at Berlin on the dates mentioned:—

	Great Britain *	June 30, 1908.
	Austria-Hungary	Jan. 17, 1909.
	Belgium	Feb. 21, 1907
	Brazil	July 2, 1908.
	Bulgaria	May 29, 1908.
	Denmark	June 10, 1907.
10	Germany	Mar. 18, 1908.
	Japan *	June 14, 1908.
	Mexico	Oct. 15, 1907.
	Netherlands	July 14, 1907.
	Norway	Oct. 19, 1907.
	Portugal.	Feb. 26, 1909.
	Roumania.	May 31, 1907.
	Russia.	July 8, 1908.
	Spain	May 29, 1908.
	Sweden.	Feb. 6, 1908.

20

ACCESSIONS

(1) BRITISH COLONIES, &c.*

Ashanti.	Fiji.
Australia, Commonwealth of.	Gambia.
Bahamas.	Gibraltar.
Barbados.	Gold Coast Colony.
Basutoland.	Hong Kong.
Bechuanaland Protectorate.	India.
Bermuda.	Jamaica.
British Guiana.	Labuan.
30 British Honduras.	Leeward Islands.
Canada, Dominion of.	Malta.
Cape Colony.	Mauritius.
Ceylon.	Natal.
Cyprus.	New Zealand, Dominion of.
East Africa Protectorate.	Northern Nigeria.
Falkland Islands.	North-West Rhodesia.

* (Subject to the reservation as regards the right of exemption referred to in Article II of the Final Protocol (see p. 13)).

Nyasaland Protectorate.	Trinidad.
St. Helena.	Turks Islands.
Seychelles.	Uganda Protectorate.
Sierra Leone.	Weihaiwei.
Somaliland Protectorate.	Western Pacific Protectorates.
Southern Nigeria.	Windward Islands, viz.:—
Southern Rhodesia.	Grenada.
Straits Settlements.	St. Lucia.
Swaziland.	St. Vincent.
10 Transvaal.	

(2) GERMANY acceded on behalf of her Protectorates.

No. 18

ADHERENCE BY CANADA TO BERLIN CONVENTION

P.C. 1611 M

EXTRACT from a Report of the Committee of the Privy Council, approved by the Governor General on the 14th November, 1907.

The Committee of the Privy Council have had under consideration a Despatch dated 31st July, 1907, from the Secretary of State for the Colonies stating that the Select Committee of the House of Commons, appointed to consider the Radio-
20 telegraphic Convention, had now reported in favour of the ratification of the Convention and that His Majesty's Government had decided they would ratify it, and requesting that His Majesty's Government be informed if it is the desire of the Canadian Government to adhere to this Convention.

The Minister of Marine and Fisheries to whom the Despatch was referred states that, recognizing the advantages likely to accrue to the Dominion of Canada, from the ratification of this Convention, it is the intention of this Government to adhere.

The Minister further states that it will be necessary to introduce the Legislation required to give effect to this Convention, and that such Legislation is now
30 receiving careful consideration.

The Committee advise that His Excellency be moved to forward a copy hereof to the Right Honourable the Secretary of State for the Colonies.

All which is respectfully submitted for approval.

(Sgd.) RODOLPHE BOUDREAU,

The Honourable

Clerk of the Privy Council.

The Minister of Marine and Fisheries.

P.C. 1611 M

From Lord Elgin to Lord Grey

Miscellaneous

DOWNING STREET,
31st July, 1907.

MY LORD,—I have the honour to request you to inform your Ministers that the Select Committee of the House of Commons appointed to consider the Radiotelegraphic Convention has now reported in favour of the ratification of the Convention and His Majesty's Government have decided that they will ratify it.

10 2. I shall be glad to learn in due course whether your Government desires to adhere to the Convention, and in this connection I have to draw your attention to Article V of the final Protocol, which provides that each of the Colonies may separately adhere to, and may separately withdraw from, the Convention.

3. The advantages likely to accrue to the United Kingdom from the ratification of the Convention appear to His Majesty's Government to be fairly summed up in paragraph 54 of the Report of the Select Committee, copies of which were forwarded to you in my "Library" despatch of the 19th of July. Your Ministers will no doubt recognize that the arguments of the Committee are in the main equally applicable to the Colonies, and I trust that your Government will agree
20 that the Convention has been framed with careful regard to the interests of His Majesty's Dominions beyond the seas.

4. The draft Convention, which was submitted to the Berlin Conference, was communicated to you in my predecessor's despatch of 12th January, 1905, but your Ministers will perceive that that draft was considerably modified, largely on the initiative of the British delegates at the Conference, and in a manner to safeguard the interests of the Empire.

5. The participation of the Colonies which adhere to the Convention, in future Conferences is provided for by Article 12 of the Convention and Article 1 of the final Protocol and it will be seen that the arrangement will doubtless secure similar
30 representation to that provided under the Postal Union which has worked satisfactorily as was admitted during the discussion of this question at the Colonial Conference.

6. Copies of the Convention were sent to you in my "Library" despatch of 15th January last and the Proceedings of the Berlin Conference were communicated to you in my "Library" despatch of the 10th April.

I have, etc.,

ELGIN.

No. 19**INTERNATIONAL RADIOTELEGRAPH CONVENTION (LONDON), 1912****ARTICLE 1**

The High Contracting Parties undertake to apply the provisions of the present Convention at all the radiotelegraph stations (coast stations and ship stations), which are established or worked by the Contracting Parties and open for the service of public correspondence between the land and ships at sea.

They undertake, moreover, to impose the observance of these provisions upon private enterprises authorized either to establish or to work radiotelegraph coast
10 stations open to the service of public correspondence between the land and ships at sea, or to establish or work radiotelegraph stations whether open for public correspondence or not, on board ships which carry their flag.

ARTICLE 2

The term "Coast Station" means any radiotelegraph station established on land, or on board a ship permanently moored and utilized for the exchange of correspondence with ships at sea.

The term "Ship Station" means any radiotelegraph station established on board a ship which is not permanently moored.

ARTICLE 3

20 Coast Stations and Ship Stations must exchange radiotelegrams reciprocally without regard to the radiotelegraph system adopted by such station.

Each Ship Station must exchange radiotelegrams with any other ship station without regard to the radiotelegraph system adopted by such station.

Nevertheless, in order not to impede scientific progress, the provisions of the present Article shall not prevent the possible employment of a radiotelegraph system incapable of communicating with other systems, provided that such incapacity be due to the specific nature of such system and not to the effect of devices adopted solely with a view to the prevention of intercommunication.

ARTICLE 4

30 Notwithstanding the provisions of Article 3, a station may be appropriated to a Service of public correspondence of a restricted character determined by the object of the correspondence, or by other circumstances independent of the system employed.

ARTICLE 5

Each of the High Contracting Parties undertakes to cause its coast stations to be connected with the telegraph system by means of special wires, or at least to take such other measures as will ensure an expeditious exchange of traffic between the coast stations and the telegraph system.

ARTICLE 6

The High Contracting Parties shall mutually notify one another of the names of the coast stations and ship stations indicated in Article 1, as well as of all the particulars necessary to facilitate and accelerate the exchange of radiotelegrams,
10 as shall be specified in the Regulations.

ARTICLE 7

Each of the High Contracting Parties reserves to itself the right to prescribe or to permit, at the stations indicated in Article 1—independently of the installation of which particulars are published in accordance with Article 6—the installation and working of other arrangements designed for radiotelegraphic transmission of a special character, without publishing the particulars of these arrangements.

ARTICLE 8

The working of radiotelegraph stations shall be organized, as far as possible, in such a manner as not to interfere with the operation of other radiotelegraph
20 stations.

ARTICLE 9

Radiotelegraph stations are bound to accept with absolute priority calls of distress whencesoever they may come, to answer such calls with similar priority, and to take the necessary steps with regard to them.

ARTICLE 10

The total charge on a radiotelegram shall be made up of the following charges, as the case shall require.

- 1st. (a) The "Coast Charge" which appertains to the coast station;
(b) The "Ship Charge" which appertains to the ship station.
- 30 2nd. The charge for transmission over the lines of the telegraph system, computed in accordance with the general rules.
- 3rd. The transit charges of the intermediate coast and ship station and the charges appertaining to special services required by the sender.

The rate of the coast charge is subject to the approval of the Government to whose authority the coast station is subject; and that of the ship charge, to the approval of the Government to whose authority the ship is subject.

ARTICLE 11

The provisions of the present Convention are completed by Regulations which shall have the same validity and shall come into force at the same time as the Convention.

The provisions of the present Convention and of the Regulations relating thereto may be modified at any time by common consent of the High Contracting
10 Parties. Conferences of Plenipotentiaries having power to modify the Convention and the Regulations shall take place periodically; each Conference shall itself fix the place and date of the following Conference.

ARTICLE 12

These Conferences shall be composed of Delegates of the Governments of the Contracting Countries.

In the deliberations each country shall exercise one vote only.

If a Government adhere to the Convention for its colonies, possessions or protectorates, subsequent conferences may determine that the whole or part of such colonies, possessions or protectorates is to be regarded as forming a country for
20 the purposes of the foregoing clause. Nevertheless, the number of votes to be exercised by a Government, including its colonies, possessions or protectorates, may not exceed six.

The following are regarded as forming each a single country for the purposes of the present Article:—

German East Africa;
German South-West Africa;
The Cameroon;
Togo;
The German Pacific Protectorates;
30 Alaska;
Hawaii and the other American possessions in Polynesia;
The Philippine Islands;
Porto Rico and the American possessions in the Antilles;
The Zone of the Panama Canal;
The Belgian Congo;
The Spanish Colony of the Gulf of Guinea;
French West Africa;

- French Equatorial Africa;
 Indo-China;
 Madagascar;
 Tunis;
 The Union of South Africa;
 The Australian Commonwealth;
 Canada;
 British India;
 New Zealand;
 10 Erithrea;
 Italian Somaliland;
 Chosen, Formosa; Japanese Sakhalin and the leased territory of Kwan-
 toun; .
 The Dutch Indies;
 The Colony of Curaçao;
 Portuguese West Africa;
 Portuguese East Africa and the Portuguese possessions in Asia;
 Russian Central Asia (littoral of the Caspian Sea);
 Bokhara;
 20 Khiva;
 Western Siberia (littoral of the Arctic Ocean);
 Eastern Siberia (littoral of the Pacific Ocean).

ARTICLE 13

The International Bureau of the Telegraph Union shall be entrusted with the duty of collecting, arranging, and publishing information of every kind relative to radiotelegraphy, of circulating in proper form proposals for the modification of the Convention and of the Regulations; of notifying the changes adopted and, in general, with the carrying out of any administrative work which may be assigned to it in the interests of International Radiotelegraphy.

- 30 The expenses of this institution shall be borne by all the Contracting Countries.

ARTICLE 14

Each of the High Contracting Parties reserves to itself the right of prescribing the conditions under which it will admit radiotelegrams from or to any station—whether ship or coast—which is not subject to the provisions of the present Convention.

If a radiotelegram is admitted, the ordinary charges must be applied to it.

Every radiotelegram originating at a ship station and received by a coast station of a contracting country, or accepted in transit by the Administration of a contracting country, must be sent forward.

Every radiotelegram intended for a ship must also be sent forward if the Administration of a contracting country has accepted it from the sender, or if the Administration of a contracting Government has accepted it in transit from a non-contracting country, subject to the right of the coast station to refuse transmission to a ship station subject to a non-contracting country.

ARTICLE 15

- 10 The provisions of Articles 8 and 9 of this Convention are equally applicable to radiotelegraphic installations other than those indicated in Article 1.

ARTICLE 16

Governments which are not parties to the present Convention shall be allowed to adhere thereto at their own request.

Such adherence shall be notified through the regular diplomatic channels to the contracting Government under whose auspices the last Conference was held and by that Government to all the others.

Such adherence shall involve complete acceptance of all the clauses of the present Convention and admission to all the advantages stipulated therein.

- 20 The adherence to the Convention by the Government of a country having colonies, possessions or protectorates does not imply the adherence of its colonies, possessions or protectorates in the absence of a declaration to that effect by such Government. These colonies, possessions or protectorates may either as a whole, or each one of them separately, form the subject of a separate adherence or a separate denunciation under the conditions indicated in the present Article or in Article 22.

ARTICLE 17

The provisions of Articles 1, 2, 3, 4, 5, 6, 7, 8, 11, 12 and 17, of the International Telegraph Convention of St. Petersburg of 10th to 22nd July, 1875, shall be applicable to International Radiotelegraphy.

30

ARTICLE 18

In case of difference of opinion between two or more of the contracting Governments concerning the interpretation or the execution of the present Convention of the Regulations provided for in Article 11, the question in dispute may, by common consent, be submitted to arbitration. In such event each of the Governments concerned shall choose another not interested in the question.

The decision of the Arbitrators shall be determined by an absolute majority of votes.

In the event of an equality of votes, the Arbitrators shall appoint, in order to settle the difference, another contracting Government, also without interest in the question. In default of an agreement with regard to such choice, each Arbitrator shall nominate another disinterested contracting Government; and lots shall be drawn between the Governments proposed. The drawing of the lots shall be the prerogative of the Government in whose territory the International Bureau provided for in Article 13 performs its work.

10

ARTICLE 19

The High Contracting Parties undertake to adopt or to propose to their respective Legislatures the measures necessary to ensure the execution of the present convention.

ARTICLE 20

The High Contracting Parties shall communicate to one another such laws as may have been already enacted or which may hereafter be enacted in their countries, relative to the subject of the present Convention.

ARTICLE 21

20 The High Contracting Parties shall retain their entire liberty concerning radio-telegraph installations not covered by Article 1, in particular concerning naval and military installations, and also stations undertaking communication between fixed points. All such installations and stations shall be subject solely to the obligations provided for in Articles 8 and 9 of the present Convention.

Nevertheless, when these installations carry on public correspondence, they shall conform, for the performance of this service, to the stipulations of the Regulations so far as concerns the manner of transmission and the accounting.

If, on the other hand, coast stations undertake communication between fixed points, in addition to public correspondence with ships at sea, they shall not be subject, in the execution of this latter service, to the provisions of the Convention,
30 except in the observance of Articles 8 and 9 thereof.

However, fixed stations which undertake correspondence between land and land must not refuse to exchange radiotelegrams with another fixed station on account of the system adopted by that station; nevertheless, each country shall retain full liberty in respect of the organization of the service for correspondence between fixed points and the nature of the correspondence to be undertaken by the stations employed in such service.

ARTICLE 22

The present Convention shall come into operation on and from the 1st of July, 1913, and shall remain in force for an indeterminate period or until the expiration of one year from the date of its denunciation by any one of the contracting parties.

Such denunciation shall only take effect as regards the Government in whose name it is made. So far as the other contracting parties are concerned the Convention shall remain in force.

ARTICLE 23

10 The present Convention shall be ratified and the ratification thereof deposited in London with as little delay as possible.

If one or more of the High Contracting Parties shall not ratify the Convention, it shall not be thereby less valid for the Parties which shall have ratified it.

In witness whereof the respective Plenipotentiaries have signed the Convention, in a single copy, which shall remain deposited in the archives of the British Government, and of which a copy shall be sent to each Party.

Done at London the 5th of July, 1912.

FINAL PROTOCOL

At the moment of proceeding to the signature of the Convention adopted by
20 the International Radiotelegraph Conference at London, the undersigned Plenipotentiaries have agreed as follows:—

I

The exact nature of the adherence notified on the part of Bosnia-Herzegovina not yet being determined, it is recognized that one vote is allotted to Bosnia-Herzegovina, a decision at a later date being necessary as to whether this vote is possessed by Bosnia-Herzegovina in virtue of the second paragraph of Article 12 of the Convention, or in accordance with the provisions of the third paragraph of that Article.

II

30 The following declaration is placed on record:—

The Delegation of the United States declares that its Government is under the necessity of abstaining from all action concerning tariffs, since the transmission of radiotelegrams as well as if telegrams in the United States is undertaken, wholly or in part, by commercial or private companies.

III

The following declaration was also placed on record:—

The Government of Canada reserves to itself the right to fix separately, for each of its coast stations, a total radio charge for radiotelegrams originating in North America and destined for any ship whatever, the coast charge amounting to three-fifths and the ship charge to two-fifths of such total charge.

In witness whereof the respective Plenipotentiaries have drawn up the present final Protocol, which shall have the same force and the same validity as if the provisions thereof had been inserted in the actual text of the Convention to which
 10 it relates and they have signed it in a single copy which will remain deposited in the archives of the British Government and of which a copy will be sent to each Party.

Done at London the 5th of July, 1912.

SIGNATORIES TO THE CONVENTION

Great Britain and various British Colonies and Protectorates;
 Union of South Africa;
 Dominion of Canada;
 Commonwealth of Australia;
 20 British India;
 New Zealand;
 Germany and the German Protectorates;
 United States of America;
 Argentine Republic;
 Austria;
 Hungary;
 Bosnia-Herzegovina;
 Belgium;
 Belgium Congo;
 Brazil;
 30 Bulgaria;
 Chili;
 Denmark;
 Egypt;
 Spain and Spanish Colonies;
 France and Algeria;
 French West Africa;
 French Equatorial Africa;

	Indo-China;
	Madagascar;
	Tunis;
	Greece;
	Italy and the Italian Colonies;
	Japan and Chosen, Formosa, Japanese Sakhalin and the Leased Territory of Kwantoung;
	Morocco;
	Monaco;
10	Norway;
	Netherlands;
	Netherland Indies and the Colony of Curacao;
	Persia;
	Portugal and the Portuguese Colonies;
	Roumania;
	Russia and the Russian Possessions and Protectorates;
	Republic of San Marino;
	Siam;
	Sweden;
20	Turkey;
	Uruguay.

SERVICE REGULATIONS ANNEXED TO THE INTERNATIONAL
RADIOTELEGRAPH CONVENTION

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1.—ORGANIZATION OF RADIOTELEGRAPH STATIONS

ARTICLE I

- 10 The choice of radiotelegraph apparatus and devices to be used by coast stations and ship stations is unrestricted. The equipment of these stations must, as far as possible, keep pace with scientific and technical progress.

ARTICLE II

Two wave-lengths, one of 600 and the other of 300 metres, shall be allowed for general public correspondence. Every coast station open for this service must be equipped in such a way as to be able to use these two wave-lengths, of which one shall be indicated as the normal wave-length of the station. During the whole period for which it is open, every coast station must be in a position to receive calls made by means of its normal wave-length. Nevertheless, for the correspondence covered
20 by paragraph 2 of Article XXXV, use shall be made of a wave-length of 1,800 metres. Further, each Government may authorize the use, in a coast station, of other wave-lengths for the purpose of securing a long-range service, or a service other than that of general public correspondence and established in accordance with the provisions of the Convention, on condition that these wave-lengths do not exceed 600 metres or that they do exceed 1,600 metres.

In particular, stations used exclusively for the despatch of signals intended to determine the position of ships must not use wave-lengths exceeding 150 metres.

ARTICLE III

1. Every ship station must be equipped in such a way as to be capable of using
30 wave-lengths of 600 metres and of 300 metres. The first shall be the normal wave-length, and may not be exceeded in transmission except in the case of Article XXXV (paragraph 2).

Other wave-lengths not exceeding 600 metres may be made use of in special cases, subject to the approval of the Administrations to whose authority the coast stations and ship stations concerned are subject.

2. During the whole period for which it is open every ship station must be in a position to receive calls made by means of its normal wave-length.

3. Ships of small tonnage in the case of which it would be materially impossible to use the wave-length of 600 metres for transmission, may be authorized to employ exclusively the wave-length of 300 metres; they must be able to receive by means of the wave-length of 600 metres.

ARTICLE IV

Communications between a coast station and a ship station or between two ship stations, must be exchanged on both sides by means of the same wave-length.
 10 If, in a particular case, communication is difficult, the two stations may, by mutual consent, pass from the wave-length by means of which they are communicating, to the other regulation wave-length. Both stations shall resume their normal wave-lengths when the radiotelegraphic exchange is finished.

ARTICLE V

1. The International Bureau shall periodically compile, publish and revise an Official Map, indicating the coast stations, their normal ranges, the principal routes of navigation, and the time normally taken by ships for the voyage between the various ports of call.

2. It shall prepare and publish an "Official List" of the radiotelegraph stations
 20 indicated in Article I of the Convention, and also periodical supplements for additions and modifications. This "Official List" shall give the following particulars regarding each station:—

- (i) *For coast stations:* the name, nationality, and geographical position indicated by the territorial subdivision and by the latitude and longitude of the place;
- For ship stations:* the name and nationality of the ships; and if there be occasion, the name and address of the party operating the station.
- (ii) The Call-signal: (the call-signals must be distinguished from one another and must each consist of a group of three letters);
- 30 (iii) The normal range;
- (iv) The radiotelegraph system with the characteristics of the system of emission: (musical sparks, tonality expressed by the number of double vibrations, etc.).
- (v) The wave-lengths used: (the normal wave-length to be underlined);
- (vi) The nature of the services performed;
- (vii) The hours of service;
- (viii) When necessary the hour and method of despatch of time-signals and meteorological telegrams;
- (ix) The coast or ship charge.

3. There shall also be included in the "Official List" such particulars with regard to radiotelegraph stations other than those indicated in Article I of the Convention, as shall be communicated to the International Bureau by the Administrations to whose authority such stations are subject, provided that these Administrations are either Parties to the Convention, or have made the declaration provided for in Article XLVIII.

4. In documents for the use of the international service, the following notations are to be adopted to designate radiotelegraph stations:—

- PG. Station open for general public correspondence.
- 10 PR. Station open for restricted public correspondence.
- P. Private station.
- O. Station open for official correspondence only.
- N. Station open permanently.
- X. Station with no fixed working hours.

5. The name of a ship station indicated in the first column of the "Official List" must, in cases of duplication, be followed by the call-signal of such station.

ARTICLE VI

The stations indicated in Article I of the Convention are prohibited from exchanging superfluous signals and words. Trials and practice shall only be permitted at these stations in so far as they do not interfere with the service of other stations.

Practice must be carried out with wave-lengths other than those reserved for public correspondence, and with the least necessary power.

ARTICLE VII

1. All stations are bound to exchange traffic with the minimum of energy necessary to ensure good communication.

2. Every coast and ship station must comply with the following conditions:—
(a) The waves emitted must be as pure and as little damped as possible.

In particular, the use of transmitting devices in which the production of the waves emitted is obtained by discharging the aerial directly by sparks (plain aerial) shall not be permitted except in cases of distress.

It may, however, be permitted in the case of certain special stations (for example, those of small boats), in which the primary power does not exceed 50 watts.

(b) The apparatus must be capable of transmitting and receiving at a speed of at least 20 words a minute, five letters being counted as one word.

New installations using an energy of more than 50 watts shall be equipped in such a way as to obtain with ease several ranges less than the normal range, the shortest being approximately 15 nautical miles. Existing installations using an energy of more than 50 watts shall be converted, as far as possible, so as to comply with the foregoing requirements.

(c) Receiving apparatus must be capable of receiving, with the greatest possible amount of protection from interference, transmissions made with the wavelengths specified in the present Regulations, up to 600 metres.

3. The range of stations used exclusively for determining the position of ships 10 (radiophares) must not exceed 30 nautical miles.

ARTICLE VIII

Independently of the general conditions specified in Article VII, ship stations must also comply with the following conditions:—

(a) The power imparted to the radiotelegraph apparatus, measured at the terminals of the generator of the station, must not under normal conditions exceed one kilowatt.

(b) Subject to the provisions of Article XXXV, paragraph 2, a power in excess of one kilowatt may be used, if the ship finds it necessary to exchange messages at a distance of more than 200 nautical miles from the nearest coast station, or if, by reason of exceptional circumstances, communication 20 can only be effected by means of an increase of power.

ARTICLE IX

1. No ship station may be established or worked by any private enterprise except under a licence issued by the Government to whose authority the ship is subject.

Stations on board ships having their port of registry in a Colony, Possession or Protectorate, may be described as being subject to the authority of such Colony, Possession or Protectorate.

2. Every ship station holding a licence issued by one of the contracting Govern- 30 ments must be regarded by the other Governments as having an installation fulfilling the requirements set out in the present Regulations.

The competent authorities of the countries at which the vessel calls may demand the production of the licence. In default of such production, these authorities may satisfy themselves that the radiotelegraph installations of the ship comply with the conditions imposed by the present Regulations.

When an Administration has practical evidence that a ship station is not complying with these conditions, it must, in every case, address a complaint to the Administration of the country to whose authority the ship is subject. Subsequent procedure, when necessary, shall be as prescribed in Article XII, paragraph 2.

ARTICLE X

1. The service of the ship station must be carried on by an operator holding a certificate issued by the Government to whose authority the ship is subject, or, in an emergency and for one voyage only, by another adhering Government.

2. There shall be two classes of certificates.

10 The 1st class certificate shall testify to the technical proficiency of the operator as regards:—

- (a) The adjustment of the apparatus and knowledge of its operation;
- (b) Transmitting and sound reading at a speed which must not be less than 20 words a minute;
- (c) Knowledge of the regulations applicable to the exchange of radiotelegraph traffic.

The 2nd class certificate may be issued to an operator who only attains a speed in transmitting and receiving of 12 to 19 words a minute, but who fulfils the other conditions mentioned above. Operators holding a 2nd class certificate may be per-
20 mitted:—

- (a) On ships which use radiotelegraphy only in their own service and in the correspondence of the ship's company: in particular on fishing vessels;
- (b) On all ships, as substitutes, provided that such ships have on board at least one operator holding a 1st class certificate; with the exception that on ships placed in the 1st class indicated in Article XIII, the service must be carried on by at least two operators holding 1st class certificates.

In ship stations, transmitting may only be undertaken by an operator holding a 1st or 2nd class certificate, except in cases of emergency, in which it would be impossible to conform to this provision.

30 3. In addition the certificate shall testify that the Government has bound the operator to the obligation of preserving the secrecy of correspondence.

4. The radiotelegraph service of the ship station shall be under the supreme authority of the captain of the ship.

ARTICLE XI

Ships provided with radiotelegraph installations and placed in the first two classes indicated in Article XIII shall be bound to have emergency radiotelegraph

installations, all the parts of which shall be placed in a position of maximum safety, such position being determined by the Government which issues the licence. These emergency installations must be provided with an independent source of energy sufficient to work the same for at least six hours; they must be capable of being placed in operation without delay and must have a minimum range of 80 nautical miles in the case of ships in the first class, and of 50 nautical miles in the case of those in the second class. Emergency installations shall not be required in the case of vessels whose ordinary installation complies with the conditions of the present article.

10

ARTICLE XII

1. If an Administration has information of a breach of the Convention or of the Regulations, committed at one of the stations which it has authorized, it shall verify the facts and fix the responsibility.

In the case of ship stations, if the responsibility falls on the operator, the Administration shall take the necessary steps, and, if need be, withdraw his certificate. If it is proved that the breach was due to the condition of the apparatus, or to instructions given to the operator, similar steps shall be taken with regard to the licence granted to the ship.

2. In the event of repeated breaches by the same ship, if the representations
20 made to the Administration to whose authority the ship is subject by another Administration, remain without effect, the latter is empowered, after giving notice, to authorize its coast stations to refuse communications from the ship in question. In case of difference between the two Administrations, the question shall be submitted to arbitration at the instance of one of the Governments concerned. The procedure followed shall be that indicated in Article 18 of the Convention.

2.—DURATION OF SERVICE AT STATIONS

ARTICLE XIII

(a) Coast Stations

The service at coast stations shall be, as far as possible, permanent, day and
30 night, without interruption.

Nevertheless, certain coast stations may provide a service of limited duration. Each Administration shall fix the hours of service.

2. Coast stations at which the service is not permanent must not close before they have transmitted all their radiotelegrams to such ships as are within their range, and have received from these ships all the radiotelegrams of which notice has been given. This provision shall also apply when ships notify their presence before work has actually ceased.

(b) Ship Stations

3. Ship stations shall be placed in three classes:—

- 1st—Stations always open;
- 2nd—Stations having limited working hours
- 3rd—Stations having no fixed working hours.

Whilst under way, the following ship stations must maintain a permanent watch:—

- 1. Stations of the first class;
- 10 2. Stations of the second class, during the hours they are open for service; outside these hours such stations must maintain a watch for the first 10 minutes of each hour.
- 3. Stations of the third class are not bound to maintain any regular watch.

The Governments which issue the licences indicated in Article IX shall specify the class in which the ship is to be placed with respect to the watches which must be maintained. Mention of this classification shall be made in the licence.

3.—FORM AND ACCEPTANCE OF RADIOTELEGRAMS

ARTICLE XIV

- 1. Radiotelegrams shall contain, as the first word of the preamble, the service instruction "radio."
- 20 2. In the transmission of radiotelegrams from a ship at sea, the date and hour of acceptance at the ship station shall be included in the preamble.
- 3. On forwarding a radiotelegram over the telegraph system, the coast station shall insert, as the indication of the "office of origin," the name of the ship of origin as it appears in the "Official List," and also, when the case arises, that of the last ship which served as an intermediary. These particulars shall be followed by the name of the coast station.

ARTICLE XV

- 1. The address of radiotelegrams destined for ships should be as complete as possible. It must contain the following:—
- 30 (a) Name or title of the addressee, with further particulars if necessary;
- (b) Name of the ship, as it appears in the first column of the "Official List."
- (c) Name of the coast station as it appears in the "Official List."

Nevertheless, the name of the ship may be replaced, at the sender's risk, by particulars of the route followed by such ship, specifying the names of the terminal ports of the voyage or by any other equivalent particulars.

2. In the address, the name of the ship, as it appears in the first column of the "Official List," shall be counted as one word; irrespective of its length.

3. Radiotelegrams worded in the International Signal Code shall be forwarded to their destination without being decoded.

4.—CHARGES

ARTICLE XVI

10 1. The coast charge and the ship charge shall be fixed in accordance with a tariff per word pure and simple, on the basis of an equitable remuneration for radiotelegraph work, with the option of fixing a minimum charge per radiotelegram.

The coast charge must not exceed 60 centimes a word, nor the ship charge 40 centimes a word. Nevertheless, each Administration shall have the right to authorize coast and ship charges in excess these maxima in the case of stations having a range of more than 400 nautical miles, or of stations which are exceptionally costly by reason of the material conditions of their installation and maintenance.

The optional minimum charge per radiotelegram must not exceed the coast or ship charge for a radiotelegram of 10 words.

20 2. In the case of radiotelegrams originating in or destined for a country, and exchanged directly with the coast stations of that country, the charge for transmission over the lines of the telegraph system must not exceed that of the inland rate of that country.

This charge shall be calculated per word pure and simple, with an optional minimum charge not exceeding that for 10 words. It shall be notified in francs by the Administration of the country to whose authority the coast station is subject.

In the case of countries in the European system, with the exception of Russia and Turkey, there shall only be a single charge for the territory of each country.

ARTICLE XVII

30 1. When a radiotelegram, originating on a ship and destined for any point on land is retransmitted via one or two ship stations, the total charge shall include:— The ship charge of each of the ships taking part in the transmission, in addition to the charge of the ship of origin, the coast station and the telegraph system.

2. The sender of a radiotelegram originating at any point on land and destined for a ship may require that his message be transmitted via one or two ship stations;

he shall deposit for this purpose the amount of the radiotelegraph and telegraph charges, and, in addition, a sum to be fixed by the office of origin as surety for the payment to the intermediate ship stations, of the transit charges fixed in paragraph 1; he must further pay, at his option, either the charge for a telegram of five words, or the cost of postage on a letter to be sent by the coast station to the office of origin giving the information necessary for the liquidation of the amounts deposited.

The radiotelegram shall then be accepted at the sender's risk; it shall contain before the address the following additional particulars, which are to be counted and charged for; "x retransmissions telegraph" or "x retransmissions letter" (x 10 representing the number of retransmissions required by the sender), according as the sender desires that the information necessary for the liquidation of the deposits be furnished by telegram or by letter.

3. The total charge on radiotelegrams originating on a ship, destined for another ship, and sent via one or two intermediate coast stations shall include:—

The ship charges, of both ships, the coast station charge or the two coast station charges, as the case may be, and when necessary the telegraph charge for the transmission of the message between the two coast stations.

4. The total charge on radiotelegrams exchanged between ships without the aid of a coast station, shall include the ship charges of the ships of origin and 20 destination, together with the ship charges of any intermediate stations.

5. The coast and ship charges due to the stations of transit shall be the same as those fixed for these stations when they are stations of origin and destination. In no case shall they be collected more than once.

6. In the event of there being any intermediate coast station, the charge to be collected by that station for the transit service, shall be the highest of the coast charges applicable to the direct exchange of messages with either of the two ships in question.

ARTICLE XVIII

A country, within whose territory a coast station is established which serves as 30 a medium for the exchange of radiotelegrams between a ship station and another country shall be considered, for the purpose of applying the telegraph rates, as the country of origin or of destination of those radiotelegrams and not as a country of transit.

5.—COLLECTION OF CHARGES

ARTICLE XIX

1. The total charge for radiotelegrams shall be collected from the sender, with the exception of:—

1st—The cost of express delivery (Article LVIII, paragraph 1, of the Telegraph Regulations);

2nd—The charges applying to inadmissible combinations or alterations of words, noted by the office or station of destination (Article XIX, paragraph 9, of the Telegraph Regulations), these charges being collected from the addressee.

For this purpose ship stations shall be provided with the necessary tariffs. Nevertheless, they shall have the right to obtain information from coast stations with regard to the assessment of the charge for radiotelegrams in respect of which they do not possess all the requisite particulars.

2. The counting of words by the office of origin shall be conclusive in the case of radiotelegrams addressed to ships, and that of the ship station of origin shall be conclusive in the case of radiotelegrams originating on ships, both for the purposes of transmission and of the international accounts. Nevertheless, when the radiotelegram is worded wholly or in part either in one of the languages of the country of destination, in the case of radiotelegrams originating on ships, or in one of the languages of the country to which the ship belongs, in the case of radiotelegrams addressed to ships, and when the radiotelegram contains combinations or alterations of words contrary to the common use of that language, the office or ship station of destination, as the case may be, shall have the right to recover from the addressee the amount of the charge not collected. In the case of a refusal to pay, the radiotelegram may be withheld.

6.—TRANSMISSION OF RADIOTELEGRAMS

(a) Signals

ARTICLE XX

The signals employed shall be those of the International Morse Code.

ARTICLE XXI

Ships in distress shall make use of the following signal:—

. . . — — — . . . (SOS)

repeated at short intervals, followed by the necessary particulars.

As soon as a station hears this signal of distress, it must suspend all correspondence, and must not resume work until after it has made sure that the communication consequent on the call for assistance is finished.

The ship making a distress call shall control all stations within range; such stations must implicitly follow all instructions re working or silence issued by that ship.

When, at the end of a series of distress calls, there is added the call-signal of a particular station, the duty of answering the call rests with that station only, unless it does not reply. Failing any mention of a particular station in the call for assistance every station which hears the call shall be bound to answer it.

ARTICLE XXII

For the purpose of giving or asking information concerning the radiotelegraph service, stations should make use of the signals contained in the list annexed to the present Regulations.

(b) Order of Transmission

10

ARTICLE XXIII

Between two stations, radiotelegrams of the same rank shall be transmitted separately in alternate order, or in series consisting of several radiotelegrams, as may be determined by the coast station provided that the time occupied in the transmission of any one series does not exceed 15 minutes.

(c) Calling of Radiotelegraph Stations and Transmission of Radiotelegrams

ARTICLE XXIV

1. As a general rule, the ship station shall call the coast station, whether it has radiotelegrams to transmit or not.

20 2. In waters where the radiotelegraph traffic is congested (e.g. the English Channel, etc.), a ship should not call a coast station, as a general rule, unless the latter is within the normal range of the ship station, and not until the distance of the ship from the coast station is less than 75 per cent of the normal range of the latter.

3. Before beginning to call, the coast station or the ship station must adjust its receiving apparatus to the highest possible degree of sensitiveness, and must make sure that no other communication is being carried on within its range, otherwise it must await the first pause, unless it considers that its call is not likely to disturb the communication in progress. The same applies when the station desires to answer a call.

30 4. For calling, every station shall use the normal wave-length of the station it wishes to call.

5. If, in spite of these precautions, a radiotelegraph communication be interfered with, the call must cease at the first request made by a coast station open for public correspondence. This station must then indicate approximately how long it will be necessary to wait.

6. The ship station must advise each coast station, to which it has notified its presence, the time at which it proposes to cease its operations, and the probable duration of the interruption.

ARTICLE XXV

1. The call shall comprise the signal — . — . — (NK), the call-signal of the station called sent three times, and the word "de" followed by the call-signal of the transmitting station, sent three times.

2. The station called shall answer by giving the signal — . — . — (NK) followed by the call-signal of the calling station, sent three times, by the word "de,"
10 its own call-signal, and the signal — . — (K).

3. Stations which desire to enter into communication with ships, without, however, knowing the names of those ships which are within their range, may employ the signal — . — . — — . — (CQ—signal of inquiry). The provisions of paragraphs 1 and 2 are also applicable to the transmission of the signal of inquiry and to the reply to that signal.

ARTICLE XXVI

If the station called does not reply when the call (Article XXV) has been sent three times at intervals of two minutes, the call must not be renewed until after an interval of 15 minutes, the station making the call first satisfying itself that no radio-
20 telegraph communication is in progress.

ARTICLE XXVII

Every station which is about to make a transmission necessitating the use of high power must first send out the warning signal — — . . — — (MIM) repeated three times with the minimum of power necessary to reach the neighbouring stations. It must not begin to transmit with the high power until 30 seconds after sending the warning signal.

ARTICLE XXVIII

1. As soon as the coast station has answered, the ship station, if it has messages to transmit, must furnish the former with the following information:—

- 30
- (a) The approximate distance of the ship from the coast station, in nautical miles;
 - (b) The position of the ship, indicated in a concise form and adapted to the circumstances of its particular case;
 - (c) The next port at which the ship will call;
 - (d) The number of radiotelegrams, unless they are of exceptional length, in which event the number of words should be given.

If the ship station has no messages to transmit, however, the above information need not be given unless particularly asked for by the coast station.

The speed of the ship in nautical miles shall also be given when specially requested by the coast station .

2. The coast station shall reply giving, as provided in paragraph 1, either the number of radiotelegrams or the number of words it has for the ship, and the order in which transmission is to take place.

3. If transmission cannot take place at once, the coast station shall inform the ship station approximately how long it will be necessary to wait.

10 4. If a ship station, when called, is unable to proceed with the reception at once, it shall inform the calling station how long it will be necessary to wait.

5. In the case of an exchange of messages between two ship stations, the station called shall decide the order in which transmission shall take place.

ARTICLE XXIX

When a coast station is called by several ship stations, it shall decide the order in which these stations shall be allowed to exchange their messages.

The sole consideration which must govern the coast station in settling the order is the necessity of allowing every station concerned to exchange the greatest possible number of radiotelegrams.

20

ARTICLE XXX

Before beginning the exchange of correspondence the coast station shall inform the ship station whether transmission is to take place in alternate order or by series (Article XXIII); it shall then begin transmission or follow up these service instructions with the signal — . — (K).

ARTICLE XXXI

The transmission of a radiotelegram shall be preceded by the signal — . — . — (NK), and ended by the signal . — . — . (AR), followed by the call-signal of the sending station and by the signal — . — (K)

30 In the case of a series of radiotelegrams, the call-letters of the sending station and the signal — . — (K) shall only be given at the end of the series.

ARTICLE XXXII

When a radiotelegram to be transmitted contains more than 40 words, the transmitting station shall interrupt the transmission by the signal . . — — . . (UD) after each series of about 20 words, and shall not resume until it has obtained from the receiving station the repetition of the last word clearly received, followed by the above-mentioned signal, or, if the reception is correct, by the signal — . — (K).

In the case of transmission by series, the acknowledgment of receipt shall be given after each radiotelegram.

Coast stations engaged in transmitting long radiotelegrams shall suspend transmission at the end of each period of 15 minutes, and must remain silent for a period of three minutes before resuming.

Coast and ship stations when working under the conditions provided for in Article XXXV, paragraph 2, shall suspend work at the end of each period of 15 minutes, and keep watch on a 600 metre wave-length for a period of three minutes before resuming.

10

ARTICLE XXXIII

1. When the signals become doubtful, it is important that recourse should be had to all possible means for effecting transmission. For this purpose the radiotelegram shall be repeated, at the request of the receiving station, but not more than three times. If, in spite of this triple transmission, the signals are still unreadable, the radiotelegram shall be cancelled. If no acknowledgment of receipt is received the transmitting station shall again call the receiving station. If no reply is received after three calls, transmission shall not be continued. In such cases the transmitting station shall have the right to obtain the acknowledgment of receipt through the medium of another radiotelegraph station, making use, when necessary, of the inland
20 telegraph lines.

2. If the receiving station, in spite of defective reception, thinks that the radiotelegram may be delivered, it shall insert the service instruction "Reception doubtful" at the end of the preamble and send on the radiotelegram. In such case, the Administration to whose authority the coast station is subject shall claim the charges, in conformity with Article XLII of the present Regulations. Nevertheless, if the ship station subsequently transmits the radiotelegram to another coast station of the same Administration, the latter can only claim charges for a single transmission.

(d) Acknowledgment of Receipt, and end of work

ARTICLE XXXIV

30 1. The acknowledgment of receipt shall be given in the form prescribed by the International Telegraph Regulations; it shall be preceded by a call-signal of the sending station and followed by the call signal of the receiving station.

2. The end of work between two stations shall be indicated by each one of them by means of the signal . . . — . — (SK) followed by its own call-signal.

(e) Route to be followed by Radiotelegrams

ARTICLE XXXV

1. As a general principle, the ship station shall transmit its radiotelegrams to the nearest coast station.

However, if the ship station has the choice between several coast stations at equal or nearly equal distances, it shall give the preference to the one established on the territory of the country of destination or of normal transit of its radiotelegrams.

2. Nevertheless, a sender on board a ship is at liberty to indicate the coast station by which he desires his radiotelegram to be despatched. The ship station shall then wait until this coast station becomes the nearest.

In exceptional cases transmission may be made to a more distant coast station, provided that:—

- (a) The radiotelegram is destined for the country in which such coast station is situated, and that it emanates from a ship subject to that country;
- (b) Both stations use a wave-length of 1,800 metres for calling and transmission.
- (c) Transmission by this wave-length does not interfere with any transmission being made by a nearer coast station on the same wave-length.
- 20 (d) The ship station is more than 50 nautical miles distant from any coast station shown in the "Official List." The distance of 50 miles may be reduced to 25 miles provided the maximum power at the terminals of the generator does not exceed 5 kilowatts, and that the ship stations are established in conformity with Articles VII and VIII. This reduction of distance shall not apply in seas, bays or gulfs, the shores of which belong to one country only and of which the opening to the high sea is less than 100 miles wide.

7.—DELIVERY OF RADIOTELEGRAMS

ARTICLE XXXVI

30 When for any cause whatsoever a radiotelegram originating on a ship at sea, and destined for any point on land, cannot be delivered to the addressee, an advice of non-delivery shall be sent. This advice shall be transmitted to the coast station which received the original radiotelegram. The latter, after verifying the address, shall, if possible, forward the advice to the ship, if need be through another coast station of the same country, or a neighbouring country.

When a radiotelegram received at a ship station cannot be delivered, that station shall inform the office or ship station of origin by means of a service advice. In the case of radiotelegrams originating at any point on land, this advice shall be transmitted, as far as possible, to the coast station via which the radiotelegram was received, or, if necessary, to another coast station of the same country, or of a neighbouring country.

ARTICLE XXXVII

If the ship to which a radiotelegram is addressed has not notified its presence to the coast station within the period indicated by the sender, or failing such indication, before the morning of the eighth day following the receipt of the message, the coast station shall advise the office of origin to that effect, the latter office in turn advising the sender.

The last named shall have the right to request by paid service advice, telegraphic or postal, addressed to the coast station, that his radiotelegram be held for a further period of nine days, for transmission to the ship, and so on. Failing such request, the radiotelegram shall be treated as undelivered at the end of the ninth day (the day of handing in not to be included).

However, if the coast station is satisfied that the ship has passed out of range before the radiotelegram could be transmitted to her, that station shall immediately inform the office of origin to that effect, which the latter office shall without delay advise the sender of the non-delivery and cancellation of the message. Nevertheless, the sender may, by paid service advice, request the coast station to transmit the radiotelegram to the ship when she next passes.

8.—SPECIAL RADIOTELEGRAMS

ARTICLE XXXVIII

The following special radiotelegrams only shall be admitted:—

1st. "*Radiotelegrams with prepaid reply:*"

These radiotelegrams must contain before the address, the instruction, "reply paid" or "RP," supplemented by a statement of the amount paid in advance for the reply, for example: "Reply paid fr. x" or "RP. fr. x;"

The reply voucher issued by a ship station shall give the right to send within the limit of its value, a radiotelegram to any address whatever from the ship station which issued the voucher.

2nd. "*Collated Radiotelegrams:*"

Messages to be repeated back.

3rd. "*Radiotelegrams to be delivered by express.*"

(By messenger beyond the regular limits of delivery.)

Only, however, in cases in which the amount of the cost of express delivery is collectible from the addressee. Countries which cannot accept these radiotelegrams must notify the International Bureau to this effect. Radiotelegrams for express delivery with all charges prepaid by the sender may be accepted when they are intended for the country within whose territory the corresponding coast station is situated.

4th. "*Radiotelegrams to be delivered by mail.*"

5th. "*Multiple Radiotelegrams.*"

(Messages with more than one address.)

10 6th. "*Radiotelegrams with Acknowledgment of Receipt.*"

But only as regards notification of the date and hour at which the coast station has transmitted to the ship station the radiotelegram addressed to the latter.

7th. "*Paid Service Advices.*"

Except those asking for repetition or information. Nevertheless, all paid service advices are accepted on the telegraph lines.

8th. "*Urgent Radiotelegrams.*"

But only in transmission over the telegraph lines, and subject to the application of the International Telegraph Regulations.

20

ARTICLE XXXIX

Radiotelegrams may be transmitted by a coast station to a ship, or by a ship to another ship, to be forwarded by mail from a port of call of the ship which receives the radiotelegram.

Such radiotelegrams shall not be entitled to any radiotelegraph retransmission. The address of these radiotelegrams must include the following:—

- 1st. Paid instruction "Mail" followed by the name of the port at which the radiotelegram is to be mailed;
- 2nd. The name and full address of the addressee;
- 3rd. The name of the ship station by which the message is to be mailed;
- 4th. When necessary, name of the coast station.

30

Example: Mail Buenosaires Martinez 14 Calle Prat Valparaiso Avon Lizard.

The charge shall include, in addition to the radiotelegraph and telegraph charges, the sum of 25 centimes for postage on the radiotelegram.

9.—RECORDS

ARTICLE XL

The originals of radiotelegrams, and the documents relating thereto, retained by the Administrations, shall be preserved with all necessary precautions to secure secrecy for at least 15 months, reckoning from the month following that in which the radiotelegrams were handed in.

These originals and documents shall be sent, as far as possible, at least once a month by ship stations to the Administrations to whose authority they are subject.

10.—REFUNDS AND REIMBURSEMENTS

10

ARTICLE XLI

1. Refunds and reimbursements are governed by the provisions of the International Telegraph Regulations, with due regard to the restrictions indicated in Articles XXXVIII and XXXIX of the present Regulations and subject to the following reservations:—

The time occupied in transmission by radiotelegraphy, and the time during which the radiotelegram remains at the coast station, in the case of those destined for ships or at the ship station, in the case of those originating on ships, shall not be reckoned in the periods of delay which give rise to refunds and reimbursements.

If the coast station advises the office of origin that a radiotelegram cannot be
20 transmitted to the ship to which it is addressed, the Administration of the country of origin shall immediately initiate the reimbursement to the sender, of the coast and ship charges on the radiotelegram. In this case, the refunded charges shall not be entered in the accounts provided for by Article XLII, but the radiotelegram shall be mentioned therein as a memorandum.

Refunds shall be borne by the different Administrations or private enterprises which have taken part in the transmission of the radiotelegram, each one foregoing its proportion of the charge. Nevertheless, radiotelegrams covered by Articles VII and VIII of the Convention of St. Petersburg shall remain subject to the provisions of the International Telegraph Regulations, except when it is due to an error of
30 service that such radiotelegrams have been accepted.

2. When the acknowledgment of receipt of a radiotelegram has not reached the station which transmitted the radiotelegram, the charges shall not be refunded until after it has been proved that the radiotelegram is one which is entitled to a refund.

11.—ACCOUNTS

ARTICLE XLII

1. The coast and ship charges shall not be entered in the accounts for which provision is made in the International Telegraph Regulations.

The accounts relating to these charges shall be settled by the Administrations of the countries concerned. They shall be prepared by the Administrations responsible for the coast stations, and communicated by them to the Administrations concerned. In cases in which the coast stations are operated independently of the Administration of the country, the parties operating such stations may be substituted in respect of accounts, for the Administration of such country.

2. In respect of transmission over the ordinary telegraph system a radiotelegram shall be treated, for accounting purposes in accordance with the International Telegraph Regulations.

3. In the case of radiotelegrams originating on ships the Administration to whose authority the coast station is subject shall debit the Administration to whose authority the ship station of origin is subject with the coast and ordinary telegraph charges, the total charges collected for prepaid replies, the coast and telegraph charges collected for collations, the charge for express delivery (as provided for in Article XXXVIII) or delivery by mail and with those collected for additional copies (TM). The Administration to whose authority the coast station is subject shall credit when the case arises, through the channel of the telegraph accounts and through the medium of the offices which have taken part in the transmission of the radiotelegrams, the Administration to whose authority the office of destination is subject, with the total charges relating to prepaid replies. With regard to the ordinary telegraph charges and charges for express delivery or delivery by mail and for additional copies the procedure shall be as prescribed in the telegraph regulations, the coast station being regarded as the telegraph office of origin.

In the case of radiotelegrams destined for a country lying beyond that in which the coast station is situated, the telegraph charges to be liquidated in conformity with the above provisions shall be those which result either from tables "A" and "B" annexed to the International Telegraph Regulations, or from special arrangements concluded between the Administrations of adjoining countries, and published by those Administrations, and not the charges which might be made, in accordance with the special provisions of Articles XXIII, paragraph 1, and XXVII, paragraph 1, of the Telegraph Regulations.

In respect of radiotelegrams and paid service advices addressed to ship, the Administration to whose authority the office of origin is subject shall be debited directly by that responsible for the coast station with the coast and ship charges.

Nevertheless, the total charges appertaining to prepaid replies shall be credited, if there be occasion, from country to country, through the channel of the telegraph accounts, until they reach the Administration responsible for the coast station. In respect of the telegraph charges and charges relating to delivery by mail and for additional copies, the procedure shall be as prescribed in the Telegraph Regulations. The Administration responsible for the coast station shall credit that responsible for the ship of destination with the ship charge, and if there be occasion, with the charges accruing to the intermediate ship stations, the total charge collected for prepaid replies, the ship charge relating to collation, and the charges for pre-
10 paring additional copies and for delivery by mail.

Paid Service Advices and Prepaid Replies shall be treated, in the radiotelegraph accounts, in all respects like other radiotelegrams.

In the case of radiotelegrams forwarded by means of one or two intermediate ship stations, each of the latter shall debit the ship station of origin, when the radiotelegram originates on a ship, or the ship station of destination when the radiotelegram is destined for a ship, with the ship charges due to it for the retransmission.

4. As a general principle, the liquidation of accounts relating to correspondence between ship stations shall be effected directly between the companies operating those stations, the station of origin being debited by the station of destination.

20 5. The monthly accounts on which the special accounting in respect of radiotelegrams is based shall be prepared message by message, with all the necessary particulars, and within a period of six months from the month to which they relate.

6. The Governments reserve the right to make special arrangements with one another and with private companies (e.g., contractors operating radiotelegraph stations, shipping companies, etc.), for the adoption of other methods of accounting.

12.—INTERNATIONAL BUREAU

ARTICLE XLIII

The additional expenses, resulting from the exercise by the International Bureau of its functions in connection with radiotelegraphy, must not exceed Frs. 80,000 per
30 annum, not including extraordinary expenditure occasioned by the assembling of an International Conference. The Administrations of the Contracting States shall, for purposes of contribution to the expenses, be divided into six classes, as follows:—

1st Class: Union of South Africa; Germany; United States of America; Alaska, Hawaii and other American possessions in Polynesia; the Philippine Islands; Porto Rico and the American possessions in the Antilles; the Zone of the Panama Canal; the Argentine Republic; Australia; Austria; Brazil; Canada; France; Great Britain; Hungary; British India; Italy; Japan; New Zealand; Russia; Turkey.

2nd Class: Spain.

3rd Class: Russian Central Asia (littoral of the Caspian Sea); Belgium; Chili; Chosen, Formosa, Japanese Sakhalin and the leased territory of Kwan-toung; Dutch Indies; Norway; Holland; Portugal; Roumania; Western Siberia (littoral of the Arctic Ocean); Eastern Siberia (littoral of the Pacific Ocean); Sweden.

4th Class: German East Africa; German South West Africa; The Cameroon; Togo; German Pacific Protectorates; Denmark; Egypt; Indo-China; Mexico; Siam; Uruguay.

10 *5th Class:* French West Africa; Bosnia-Herzegovina; Bulgaria; Greece; Madagascar; Tunis.

6th Class: French Equatorial Africa; Portuguese West Africa, Portuguese East Africa, and the Portuguese Possessions in Asia; Bokhara; the Belgian Congo; the Colony of Curacao; the Spanish Colony of the Gulf of Guinea; Erithrea; Khiva; Morocco; Monaco; Persia; San Marino; Italian Somaliland.

ARTICLE XLIV

The various Administrations shall supply the International Bureau with a Return in conformity with the annexed form, containing the particulars specified
20 therein in respect of the stations indicated in Article V of the Regulations. Subsequent modifications and additions shall be communicated by the Administrations to the International Bureau between the 1st and 10th days of each month. By means of the information thus communicated the International Bureau shall prepare the "Official List" provided for in Article V. This "Official List" and the supplements relating thereto shall be printed and distributed to the Administrations concerned; it, together with the supplements, may also be sold to the public at cost price.

The International Bureau shall take measures to ensure that the same call-signals are not adopted for different radiotelegraph stations.

30 13.—TIME SIGNALS, METEOROLOGICAL AND OTHER TRANSMISSIONS

ARTICLE XLV

1. The Administrations shall take the necessary steps to supply their coast stations with telegrams containing meteorological information relative to the districts of such stations. These telegrams, the text of which must not exceed 20 words, shall be transmitted to ships upon request. The charges on these meteorological telegrams shall be carried to the account of the ships to which they are addressed.

2. Meteorological observations, made by certain ships appointed for that purpose by the country to whose authority they are subject, may be transmitted once a day as paid service advices to the coast stations authorized to receive them by the Administrations concerned, who shall also designate the meteorological offices to which these observations shall be addressed by the coast station.

3. Time signals and meteorological telegrams shall be transmitted one after the other in such a way that the total duration of the transmission shall not exceed ten minutes. As a general principle while these are being transmitted, all radiotelegraph stations, the operations of which might interfere with their reception,
10 shall remain silent, in order that all stations so desirous may receive them; exception being made in the case of distress calls and State telegrams.

4. Administrations shall facilitate arrangements for communicating to such maritime news agencies as they think fit, such information respecting wrecks and shipping casualties, or of general interest for purposes of navigation, as can properly be communicated to them by their coast stations.

14.—MISCELLANEOUS PROVISIONS

ARTICLE XLVI

Traffic exchanged between ship stations must be so regulated as not to interfere with the service of coast stations, the latter being entitled, as a general prin-
20 ciple, to priority for purposes of public correspondence.

ARTICLE XLVII

Coast stations and ship stations shall be bound to participate in the retransmission of radiotelegrams in cases in which direct communication cannot be established between the stations of origin and destination.

The number of such retransmissions shall, however, be limited to two.

In the case of radiotelegrams destined for any point on land, retransmission shall take place only for the purpose of reaching the nearest coast station.

Retransmission shall in every case be subject to the condition that the intermediate station which receives the radiotelegram in transit is in a position to
30 forward it.

ARTICLE XLVIII

If the route followed by the radiotelegram is partly over the telegraph lines or via radiotelegraph stations belonging to a non-contracting Government, such radiotelegrams may be sent forward provided that the Administrations to whose authority these lines or stations are subject shall have declared that they are will-

ing when the case arises, to comply with such provisions of the Convention and of the Regulations as are indispensable for the regular forwarding of radiotelegrams, and the accounting therefor.

Such declarations shall be made to the International Bureau and communicated to the Offices of the Telegraph Union.

ARTICLE XLIX

Modifications of the present Regulations which may be rendered necessary by reason of the decisions of future Telegraph Conferences, shall come into force on the date fixed for the application of the provisions decided upon by each one of
10 such Conferences.

ARTICLE L

The provisions of the International Telegraph Regulations shall apply by analogy to radiotelegraph correspondence in so far as they are not inconsistent with the provisions of the present Regulations.

The following provisions of the above regulations in particular shall apply to radiotelegraph correspondence.

Article XXVII, paragraphs 3 to 6, concerning the collection of charges; Articles XXVI and XLI referring to the indication of the route to be followed; Articles LXXV, paragraph 1, LXXVIII, paragraphs 2 to 4, and LXXIX, paragraphs 2
20 and 4, relating to the preparation of accounts. Nevertheless:—

- (1) The period of six months provided by paragraph 2 of Article LXXIX of the Telegraph Regulations for the verification of accounts shall be extended to nine months in the case of radiotelegrams;
- (2) The provisions of Article XVI, paragraph 2, are not considered as authorizing the free transmission by radiotelegraph stations of service telegrams relating exclusively to telegraph service, nor the free transmission over the lines of the telegraph system of service telegrams relating exclusively to the radiotelegraph service;
- (3) The provisions of Article LXXIX, paragraphs 3 and 5, shall not apply to
30 radiotelegraph accounting.

For the purpose of applying the provisions of the Telegraph Regulations, coast stations shall be considered as offices of transit, except when the Radiotelegraph Regulations expressly stipulate that such stations are to be considered as offices of origin or destination.

In conformity with Article 11 of the Convention of London the present regulations shall come into force on the 1st day of July, 1913.

IN WITNESS WHEREOF the respective Plenipotentiaries have signed these Regulations in a single copy, which shall remain deposited in the Archives of the British Government and of which a copy shall be sent to each party.

(Supplement to Article XLIV of Regulations)

Administration of

PARTICULARS OF RADIOTELEGRAPH STATIONS

(a) COAST STATIONS

Name	Nationality	Geographical Position E—East longitude O—West longitude N—North latitude S—South latitude Territorial Subdivisions	Call Signal	Normal Range in Nautical Miles	Radiotelegraph System with the Characteristics of the Transmitting System	Wave-lengths in Metres (the Normal Wave-length to be underlined)	Nature of Service Performed by the Stations	Hours of Service. Local Standard Time)	COAST CHARGE		REMARKS (When necessary Hour and Method of Sending Time-Signals and Meteorological Telegrams)
									Per Word in Francs	Minimum per Radiotelegram in Francs	

(b) SHIP STATIONS

Name	Nationality	Call-Signal	Normal Range in Nautical Miles	Radiotelegraph System with the Characteristics of the Transmitting System	Wave-lengths in Metres	Nature of Service Performed by the Stations	Hours of Service	SHIP CHARGE		REMARKS (When necessary Name and Address of the Party Operating the Station)
								Per Word in Francs	Minimum per Radiotelegram in Francs	
								1st Warships		
								2nd Merchant Ships		

(Supplement to Article XXII of the Regulations)

LIST OF ABBREVIATIONS TO BE USED IN RADIO-TELEGRAPH COMMUNICATIONS

Signal.	Question.	Answer or Notification.
1.	2.	3.
• • • • •	(C.Q.)	General call or search signal used by any station which desires to communicate.
• • • • •	(T.R.)	Signal to precede the transmission of information concerning a ship station (Art. XXVIII).
• • • • •	(!)	Signal notifying that a station is about to use high power.
P R B	Do you desire to communicate with my station by means of the International Code of Signals?	I desire to communicate with your station by means of the International Code of Signals.
Q R A	What is the name of your station?	This station is.....
Q R B	What is your distance from this station?	The distance between our stations is nautical miles.
Q R C	What is your correct bearing?	My correct bearing is.....degrees.
Q R D	Where are you bound for?	I am bound for.....
Q R F	Where are you bound from?	I am bound from.....
Q R G	What Company (or Line) do you belong to?	I belong to.....
Q R H	What is your wave-length?	My wave-length is.....metres.
Q R J	How many words have you to transmit?	I have.....words to transmit.
Q R K	How are you receiving?	I am receiving well.
Q R L	Are you receiving badly? Shall I transmit • • • • • (S.N.) 20 times for adjustment?	I am receiving badly. Please transmit • • • • • (S.N.) 20 times, for adjustment.
Q R M	Are you being interfered with?	I am being interfered with.
Q R N	Are atmospherics very strong?	Atmospherics are very strong.
Q R O	Shall I increase my power?	Increase your power.
Q R P	Shall I decrease my power?	Decrease your power.

(Supplement to Article XXII of the Regulations)

LIST OF ABBREVIATIONS TO BE USED IN RADIOTELEGRAPH
COMMUNICATIONS—Continued

Signal.	Question.	Answer or Notification.
1.	2.	3.
Q R Q	Shall I send faster?	Send faster.
Q R S	Shall I send slower?	Send slower.
Q R T	Shall I stop sending?	Stop sending.
Q R U	Have you anything for me?	I have nothing for you.
Q R V	Are you ready?	I am ready; everything is in order.
Q R W	Are you busy?	I am busy with another station (or: with.....) Please do not interfere.
Q R X	Shall I stand by?	Stand by. I will call you at o'clock (or: when required).
Q R Y	When shall I have my turn?	Your turn will be No.....
Q R Z	Are my signals weak?	Your signals are weak.
Q S A	Are my signals strong?	Your signals are strong.
Q S B	(Is my note bad?) (Is my spark bad?)	(Your note is bad.) (Your spark is bad.)
Q S C	Is my spacing bad?	Your spacing is bad.
Q S D	Please compare time; my time is o'clock, what is yours?	My time is.....
Q S F	Are the messages to be transmitted in alternative order or by series?	Transmit in alternative order.
Q S G	Transmit in series of 5 messages.
Q S H	Transmit in series of 10 messages.
Q S J	What is the rate to.....	The rate to..... is.....
Q S K	Is the last message cancelled?	The last message is cancelled.
Q S L	Did you get my acknowledgment of receipt?	Please acknowledge receipt.

*(Supplement to Article XXII of the Regulations)*LIST OF ABBREVIATIONS TO BE USED IN RADIOTELEGRAPH
COMMUNICATIONS—*Concluded*

Signal.	Question.	Answer or Notification.
1.	2.	3.
Q S M	What is your correct course?	My correct course is.....degrees.
Q S N	Can you communicate with land?	I cannot communicate with land.
Q S O	Are you in communication with another station (or: with.....?)	I am in communication with.....(by medium of.....).
Q S P	Shall I notify.....that you are calling him?	Inform.....that I am calling him.
Q S Q	Is.....calling me?is calling you.
Q S R	Will you forward the radio-telegram?	I will forward the radio-telegram.
Q S T	Have you received a general call?	I have received a general call for all stations.
Q S U	Please call me as soon as you have finished (or: at.....o'clock?)	I will call you as soon as I have finished.
Q S V	Is public correspondence in progress?	Public correspondence is in progress; please do not interfere.
Q S W	Shall I increase my spark frequency?	Increase your spark frequency.
Q S X	Shall I decrease my spark frequency?	Decrease your spark frequency.
Q S Y	Shall I transmit with a wave-length of.....metres?	Please use a wave-length of.....metres.

When an abbreviation is followed by a question mark, it applies to the question indicated opposite that abbreviation in Column 2.

EXAMPLES:

A. QRA?	What is the name of your station?
B. QRA Campania	This is the Campania.
A. QRG?	To what Company or Line do you belong?
B. QRG	Cunard. QRZ—I belong to Cunard Line. Your signals are weak. Then Station "A" increases the power of his transmitter and says:
A. QRK?	How are you receiving?
B. QRK	I am receiving well.
QRB 80	The distance between our stations is 80 nautical miles.
QRC 62	My correct bearing is 62 degrees, etc.
etc.	

No. 20

RATIFICATION AND ADHERENCE OF LONDON CONVENTION

P.C. 2966

Copy/S
L4

CERTIFIED COPY of a Report of the Committee of the Privy Council, approved by His Royal Highness the Governor General on the 24th October, 1912.

No. 659. The Committee of the Privy Council have had before them a report, dated 16th October, 1912, from the Secretary of State for External Affairs, upon a despatch
10 from the Right Honourable the Secretary of State for the Colonies, dated 20th September, 1912, transmitting copies of the International Radiotelegraphic Convention signed on 5th July, 1912, and also upon a despatch from the Colonial Secretary, dated 2nd October, 1912, forwarding a copy of the revised International Radiotelegraphic Convention, Final Protocol, and Service Regulations as signed by the Plenipotentiaries of the various Contracting States and their Colonies.

No. 679. The Committee, on the recommendation of the Secretary of State for External Affairs, advise that Your Royal Highness may be pleased to acquaint the Right Honourable the Secretary of State for the Colonies that the Government of Canada adheres to this convention and desires that the same may be ratified by His
20 Majesty the King, on behalf of Canada.

All which is respectfully submitted for approval.

(Sgd.) RODOLPHE BOUDREAU,
Clerk of the Privy Council.

The Honourable
The Minister of the Naval Service.

(Copy)

No. 24761/13.

SIR,—With reference to your letter of the 20th ultimo (12710) I am directed by Secretary Sir E. Grey to state, for the information of the Secretary of State for the Colonies, that the King's ratification of the International Radiotelegraph
30 Convention signed at London, July 5, 1912, has been duly deposited at this office on the 2nd instant, and that a notification to this effect will shortly be made to the States parties to the Convention in the terms set forth in the accompanying Memorandum.

The Under-Secretary of State,
Colonial Office.

I am, etc.,
(Sgd.) EYRE A. CROWE.

(Copy)

MEMORANDUM

INTERNATIONAL RADIOTELEGRAPH CONVENTION
DEPOSIT OF RATIFICATION

Great Britain*

June 2nd, 1913.

*The Ratification of His Britannic Majesty is in respect of the United Kingdom, the Dominion of Canada, the Commonwealth of Australia, the Dominion of New Zealand, the Union of South Africa, and India, as well as of the following British Colonies and Protectorates on whose behalf the Convention was signed:—

Bahamas	Malta
Barbados	Mauritius
Basutoland	North Borneo
Bechuanaland Protectorate	Northern Nigeria
Bermuda	Northern Rhodesia
British Guiana	Nyasaland Protectorate
British Honduras	St. Helena
Ceylon	Seychelles
Cyprus	Sierra Leone
East Africa Protectorate	Somaliland Protectorate
Falkland Islands	Southern Nigeria
Fiji	Southern Rhodesia
Gambia	Straits Settlements including—
Gibraltar	Labuan and Cocos Islands
Gold Coast including Ashanti	Swaziland
Hongkong	Trinidad and Tobago
Jamaica, including—	Uganda Protectorate
Turks and Caicos Islands	Weihaiwei
Cayman Islands	Western Pacific Possessions and Pro-
Leeward Islands—	tectorates including—
Antigua	Fanning Island
Montserrat	Gilbert and Ellice Islands
St. Christopher-Nevis	British Solomon Islands
Dominica	Windward Islands—
Virgin Islands	Grenada
Malay States—	St. Lucia
Perak	St. Vincent
Selangor	
Negro Sembilan	
Pahang	

ACCESSIONS

Newfoundland	} June 2nd, 1913.
Papua	
Norfold Island	

No. 21

CPE-N

(Copy)

EXCHANGE OF NOTES RE SHIP TO SHORE STATIONS OF
GREAT LAKES

249-13-4

SIR:

May 20, 1925.

Re change in wavelength of ship to shore stations on Great Lakes

I beg to acknowledge receipt of your communication of the 9th May, advising that the Department of Commerce has approved the recommendations of the recent Radio Conference at Detroit.

The Department is to-day issuing a Radio Regulation which will bring the recommendations into effect in Canada on the 15th July next.

I thank you for your expression of goodwill, and need hardly say that we, in turn, greatly appreciate the spirit in which the Department of Commerce is dealing with our mutual radio problems.

I am, sir,

Yours truly,

A. JOHNSTON,

Deputy Minister.

The Secretary,

20 Department of Commerce,
Washington, D.C.

(Copy)

DEPARTMENT OF COMMERCE

OFFICE OF THE SECRETARY

WASHINGTON, May 9, 1925.

SIR,—The Department has approved the recommendations made by the conferees who met at Detroit on the 4th instant and has notified the Supervisors of Radio at Detroit and Chicago to so inform all of the parties interested.

The Department takes this opportunity of expressing to you its appreciation of the spirit of co-operation you have shown in connection with this matter and similar matters in which we are jointly interested.

Respectfully,

(Sgd.) S. B. DAVIS,

Acting Secretary of Commerce.

Deputy Minister,

Department of Marine and Fisheries,
Radiotelegraph Service,
Ottawa, Canada.

(Copy)

RECOMMENDATIONS OF RADIO CONFERENCE, DETROIT,
MAY 4, 1925

ALTERATION IN SHIP TO SHORE WAVELENGTH FOR GREAT LAKES

1. All Canadian and American coast and ship stations on the Great Lakes open for general public service business must be equipped to work on a wavelength of 715 metres, which will be the normal wavelength of the station. All Canadian and American stations must maintain a watch on this wavelength.
- 10 2. A wavelength of 875 metres is authorized for the handling of general public service correspondence. The use of this wavelength by coastal stations and vessels is optional.
3. Communication between a coastal station and a station on shipboard or between ship stations shall be exchanged on the part of both by means of the same wavelength.
4. For general public service communications between ship and shore and ship and ship when working with stations other than the nearest station must be on a wavelength of 875 metres or higher. Communication with a distant station will not be permitted if interference with the nearby station results.
- 20 5. All correspondence transmitted from a ship or shore station will be in regular message form and copies of these communications must be placed on file.
6. The practice of transmitting notes under the prefix S V C or carrying on unofficial conversations must be discontinued.

Certified to be a true copy of recommendations made by representatives of the Department of Marine of Canada and the Department of Commerce of the United States.

30

E. HAWKEN,
Acting Deputy Minister of Marine.