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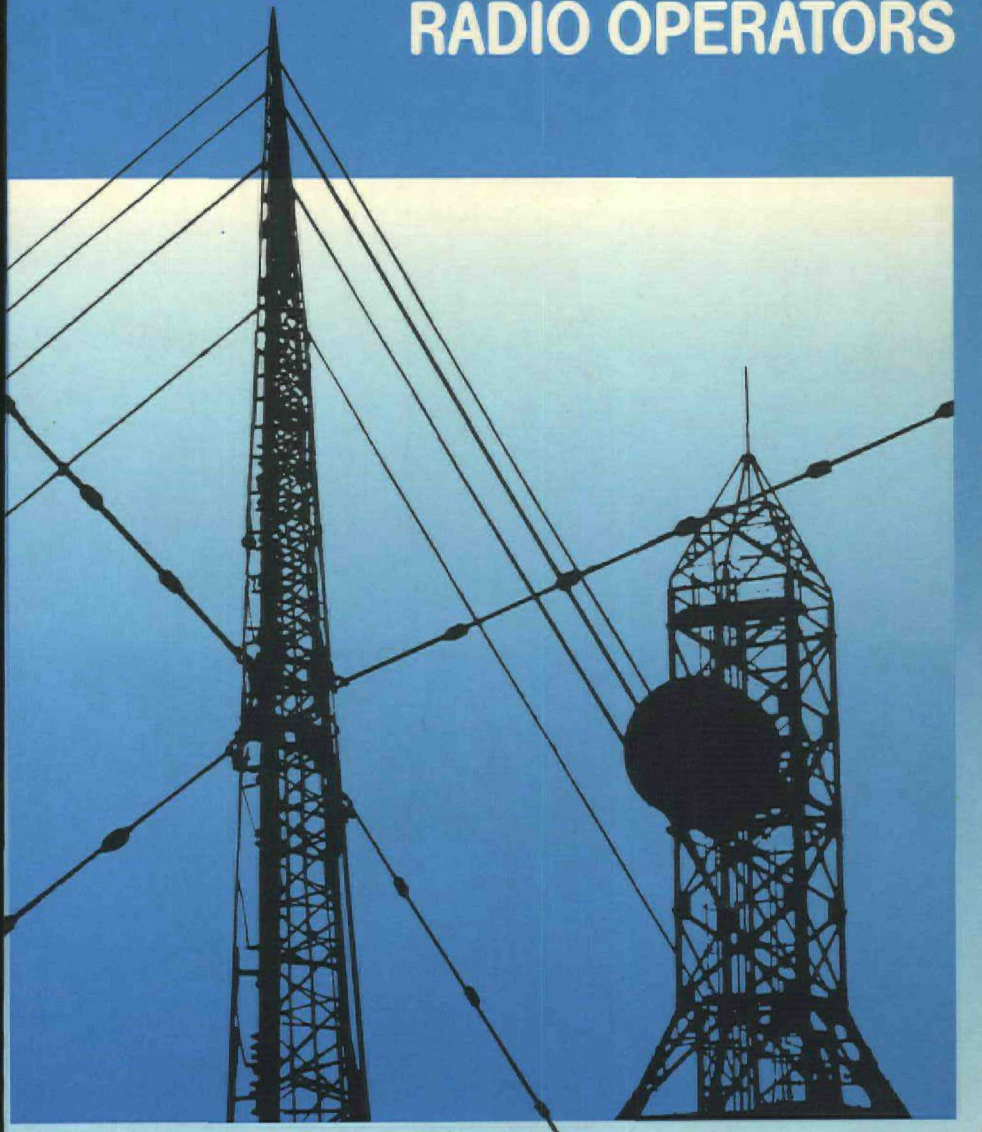
HANDBOOK FOR RADIO OPERATORS



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BRITISH TELECOM INTERNATIONAL

HANDBOOK FOR RADIO OPERATORS

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Foreword

This handbook is intended only for the guidance of radio personnel in ship and coast stations operating radio equipment on frequencies in the international maritime mobile bands and is subject to the overriding International and National Regulations detailed below. It is made up of the following chapters:

Chapter I	General Regulations and Conditions to be Observed by Stations of the Maritime Mobile Service
Chapter II	Radiotelegrams, Radiotelephone and Radiotelex Calls
Chapter III	Selective Calling
Chapter IV	Procedures in the Maritime Mobile Radiotelegraph Service
Chapter V	Distress, Urgency and Safety Communications by Radiotelegraphy
Chapter VI	Procedures in the Maritime Mobile Radiotelephone Service
Chapter VII	Distress, Urgency and Safety Communications by Radiotelephony
Chapter VIII	Special Services
Chapter IX	Maritime Satellite Services

The handbook is based on the provisions of:

(a) The International Telecommunication Convention (Malaga-Torremolinos 1973)
(b) The International Telecommunication Union's Radio Regulations, Geneva, 1982, as revised by the World Administrative Radio Conferences, I.T.U., Geneva, 1979 and 1983
(c) The Merchant Shipping (Radio Installations) Regulations 1980
(d) The Merchant Shipping (Radio Installations) (Amendments) Regulations 1984
(e) The Merchant Shipping (Navigational Equipment) Regulations 1980
(f) The Merchant Shipping (Radio) (Fishing Vessels) Rules, 1974
(g) The Wireless Telegraphy Acts, 1949 to 1967
(h) The Telegraph Regulations, Telephone Regulations and Telex Regulations (Geneva 1976)

and on certain other statutory provisions.

Foreword

Strict observance of the provisions and procedures covered by this handbook is essential for the efficient exchange of communications in the maritime mobile service, particularly when the safety of life is concerned. Special attention should be given to those sections dealing with distress, urgency and safety.

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CHAPTER I

General Regulations and Conditions to be Observed by Stations of the Maritime Mobile Service

PART 1—GENERAL PROVISIONS

LICENCE

1 Under the Wireless Telegraphy Acts 1949 to 1967, a licence issued by the Department of Trade and Industry is necessary before any radio apparatus is installed or used on board a ship.

The licence shows the name and call sign of the ship, the public correspondence category, the frequencies, the classes of emission and the powers which may be used for transmission; it also specifies the conditions under which the station must be operated. It is the duty of operators to observe these conditions to the best of their ability.

Subject to the approval of the master, or other person responsible for the ship, the licence permits all members of the crew and passengers on board a ship to install and use radio apparatus for the reception of programmes by sound sent from authorised broadcasting stations for general reception. Provided that on all compulsorily fitted ships the installation complies with the Merchant Shipping (Radio Installations) Regulations 1980. A separate licence is required for the reception of television programmes and for portable "on-board" transceivers.

Subject to payment in advance of the prescribed annual renewal fee, a ship licence normally continues in force from year to year, but the Department of Trade and Industry has power to revoke a licence or to vary its terms at any time.

The licence must be kept in such a way that it can be produced upon request for inspection by the competent authorities at ports at which the ship calls. As far as possible it should be permanently exhibited in the station.

AUTHORITY OF THE MASTER

2 The radio service of a ship is placed under the supreme authority of the master or of the person responsible for the ship.

INSPECTION AND SURVEY OF STATIONS

3 All stations are subject to inspection by officers appointed for that purpose by the Department of Trade and Industry in order to ascertain that the conditions imposed by the Ship Licence are being met.

Ship stations which are required by the Merchant Shipping Acts and the Merchant Shipping Regulations made thereunder to be equipped with a radio installation are surveyed annually by a Radio Surveyor appointed by the Department of Transport for the purpose of renewal of the appropriate Safety Radio Certificate.

If appropriate, the inspection relating to the Ship Licence and the survey relating to the Safety Radio Certificate are carried out at the same time by the Radio Surveyor.

It is the duty of the master or person responsible for the ship to permit any person acting on behalf of the Secretary of State to have access to the ship station at all reasonable times for the purpose of inspection and/or survey and testing of the radio apparatus comprised therein.

The competent authorities of any Port State where a ship calls can require the production of the Ship Licence and also the certificates of competency of the radio personnel. On failure to produce these documents or where manifest irregularities are observed, the authorities can inspect the radio apparatus in order to satisfy themselves that it conforms to the requirements of the International Radio Regulations and, if appropriate, the International Safety of Life at Sea Convention then in force.

Authorised inspectors must have in their possession suitable means of identity which they must show at the request of the master or person responsible for the ship.

Before leaving, the inspector shall report the result of his inspection to the master or the person responsible for the ship. Further, if any breach of the regulations is observed, the inspector shall make this report in writing to the owner or his representative and to the master or person responsible.

SECRECY

4 Radio personnel and all persons who become acquainted with the contents of radiotelegrams, radiotelephone calls, or radiotelex calls are bound to preserve the secrecy of correspondence. No person shall divulge the contents or even the existence of correspondence transmitted, received, or intercepted by a radio station.

The interception of radiocommunication correspondence, other than that which the station is authorised to receive, is forbidden and in the case where such correspondence is involuntarily received, it shall not be reproduced, nor communicated to third parties, nor used for any purpose, and even its existence shall not be disclosed.

A copy of the relevant legislation shall be exhibited in the radio room.

DISTRESS CALLS AND MESSAGES

5 The obligation to accept distress calls and messages is absolute in the case of every station without exception, and such messages must be accepted with priority over all other messages, they must be answered and the necessary steps must immediately be taken to give effect to them.

FALSE OR DECEPTIVE DISTRESS, SAFETY OR IDENTIFICATION SIGNALS

6 The transmission or circulation of false or deceptive distress, safety or identification signals is strictly prohibited.

HOURS OF WATCHKEEPING OF STATIONS IN THE MARITIME MOBILE SERVICES

7 (1) In order to permit the application of the following rules on the subject of hours of watch, every station of the maritime service must have an accurate clock correctly regulated to Coordinated Universal Time (U.T.C.).

Coordinated Universal Time (reckoned from 0001 to 2400 hours beginning at midnight) must be used for all entries in the radiocommunication service log and in all similar documents of ships prescribed to be equipped with radiocommunication apparatus in compliance with an international agreement; this same provision will apply, as far as possible, to other ships.

Coast Stations

(2) The service of coast stations is, as far as possible, continuous (day and night) but certain coast stations may provide a service of limited duration.

The hours of service of coast stations are indicated in the List of Coast Stations, published by the International Telecommunication Union.

Coast stations whose service is not continuous must not close before:

(a) finishing all operations resulting from a distress call, urgency or safety signal;
(b) exchanging all traffic originating in or destined for mobile stations which are situated within their service area and have indicated their presence before the actual cessation of work;
(c) making a general call to all stations announcing the closing down of the service and advising the time of reopening, if other than their normal hours of service.

Ship Stations

(3) For the international public correspondence service, ship stations are divided into four categories:

(a) Stations of the first category: these stations maintain a continuous service.
(b) Stations of the second category: these stations maintain a service for 16 hours a day.
(c) Stations of the third category: these stations maintain a service for 8 hours a day.
(d) Stations of the fourth category: these stations maintain a service the duration of which is either shorter than that of stations of the third category, or is not fixed.

Stations of the second and third categories provide service at least during the hours fixed by Appendix 3 except that in the case of short voyages the hours of watch are fixed by the administration to which they are subject.

Stations of the fourth category are encouraged to provide service from 0830 to 0930 hours, ship's time or zone time.

The hours of service of ships engaged on international voyages are shown where practicable in the List of Ship Stations.

(4) For the purposes of distress watchkeeping under the Merchant Shipping (Radio Installations) Regulations, ships are required to maintain the following watches:

(a) VHF radio watch (All Ships)

(1) Each ship provided with a VHF radiotelephone installation in accordance with the above Regulations shall maintain a listening watch on the bridge on 156.8 MHz (VHF Channel 16).

(2) This listening watch may be discontinued:

(a) when the vessel is outside the VHF service area of shore stations;
(b) when the vessel is maintaining a watch on a port operations or ship movement service frequency;
(c) when the receiver is being used for traffic on a frequency other than 156.8 MHz;
(d) when, on the direction of the master, such watch is being maintained elsewhere in the ship;
(e) when, in the opinion of the master, such watch is prejudicial to the safety of the ship: in this case an entry shall be made in the ship's log of the time listening watch was discontinued, the circumstances in which the safety of the ship was prejudiced and the time listening watch was resumed.

(b) Radio watch (Radiotelephone Ships)

Every radiotelephone ship which is fitted with a radiotelephone station in accordance with the above Regulations shall, while at sea, maintain continuous watch on the radiotelephone distress frequency at the place on board from which the ship is normally navigated, by use of a radiotelephone distress frequency watch receiver or radiotelephone auto alarm.

(c) Radio watch (Radiotelegraph Ships)

(1) Each ship which in accordance with the above Regulations is fitted with a radiotelegraph installation shall, while at sea, maintain continuous watch on:

(a) the radiotelephone distress frequency at the place on board from which the ship is normally navigated by use of a radiotelephone distress frequency watch receiver; and
(b) the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker:

Provided that if the ship is fitted with a radiotelegraph auto alarm and the means to cause an audible warning to be given in the radiotelegraph operating room, in the radio officer's sleeping accommodation and on the bridge when the radiotelegraph auto alarm is activated by a radiotelegraph alarm signal, such watch may be kept by the radiotelegraph auto alarm:

(i) at all times except during the working hours specified in Appendix 3, Part 1 to be maintained by the appropriate category of ship station; and
(ii) on all occasions during the working hours specified in Appendix 3, Part 1 to be maintained by the appropriate category of ship station that the radio officer is performing other duties in accordance with the provisions of paragraph (3) of this regulation and it is impracticable to listen by headphones or loudspeaker; but the listening watch shall always be maintained during working hours by a radio officer using headphones or loudspeaker during the silence periods on the frequency of 500 kHz.

(2) Each radiotelegraph ship shall while at sea maintain the working hours as specified in Appendix 3, Part 1 for ship stations:

(a) of the first category in respect of ships not provided with a radiotelegraph auto alarm;
(b) of the second category in respect of passenger ships provided with a radiotelegraph auto alarm and carrying or certificated to carry more than 250 passengers and engaged on a voyage exceeding 16 hours' duration between consecutive ports; or

(c) of the third category in respect of all other radiotelegraph ships provided with a radiotelegraph auto alarm.

(3)(a) During the period when a radio officer is required by this regulation to listen on the radiotelegraph distress frequency, the radio officer may discontinue such listening during the time when he is handling traffic on other frequencies, or performing other essential radio duties, but only if it is impracticable to listen by split headphones or loudspeaker. The term "essential radio duties" in this paragraph includes urgent repairs of:

(i) equipment for radiocommunication used for safety;
(ii) radio navigational equipment by order of the master.

(b) In addition to the provisions of sub-paragraph (a) of this paragraph, on ships other than multi-radio officer passenger ships, the radio officer may, in exceptional cases, that is to say, when it is impractical to listen by split headphones or loudspeaker, discontinue listening by order of the master in order to carry out maintenance required to prevent imminent malfunction of:
equipment for radiocommunication used for safety;
radio navigational equipment;
other electronic navigational equipment including its repair;
Provided that:

(i) the radio officer is appropriately qualified to perform these duties; and
(ii) the ship is fitted with a receiving selector which complies with the requirements of the Radio Regulations.

(4) In all ships fitted with a radiotelegraph auto alarm, it shall, while the ship is at sea, be in operation whenever there is no listening watch being kept on the radiotelegraph distress frequency by a radio officer using headphones or a loudspeaker.

(5) For the purpose of distress watchkeeping under the Merchant Shipping (Radio) (Fishing Vessels) Rules, ships equipped with radio in compliance with the requirements of the Rules are divided into three classes as shown in Section **27**(3) and are normally required to maintain the following watches:

(a) Stations installed in all three Classes of fishing vessels: these stations maintain a continuous listening watch on 2182 kHz at the place on board from which the fishing vessel is normally navigated. Such watch may be kept by means of a type-approved radiotelephone distress frequency watchkeeping receiver or radiotelephone auto alarm receiver.
(b) Stations installed in Class I fishing vessels: in addition to the watch described in (a), these stations maintain continuous watch on 500

kHz whilst operating outside the area specified in Schedule 2 to the Merchant Shipping (Radio) (Fishing Vessels) Rules. Such watch may be kept by means of a type-approved radiotelegraph auto alarm equipment.

(6) Ship stations whose service is not continuous shall not close before:

(a) finishing all operations resulting from a distress call, urgency or safety signal;

(b) exchanging so far as practicable all traffic orginating in or destined for coast stations situated within their service area and for mobile stations which being within their service area have indicated their presence before the actual cessation of work.

Any ship station not having fixed hours of watch must inform the coast station with which it is in communication of the time of closing and the time of re-opening its service.

DESIGNATION OF FREQUENCIES

8 Frequencies are expressed in kilohertz (kHz) up to and including 3000 kHz; in megahertz (MHz) thereafter up to and including 3000 MHz, in gigahertz (GHz) thereafter up to and including 3000 GHz.

CLASSIFICATION OF EMISSIONS

9 Emissions are classified and symbolised as follows:

Amplitude modulation	Symbol
With no modulation	NON
Telegraphy without the use of a modulating audio frequency (by on-off keying). For aural reception	A1A
Telegraphy by the on-off keying of an amplitude-modulating audio frequency or audio frequencies or by the on-off keying of the modulated emission (special case: an unkeyed emission amplitude modulated):	
Double sideband for aural reception	A2A
Double sideband for automatic reception	A2B
Single sideband full carrier for aural reception	H2A
Single sideband full carrier for automatic reception (e.g. selective calling signal using sequential single frequency code. Also auto alarm reception)	H2B
Telegraphy, multichannel voice-frequency with error correction, single sideband, reduced carrier	R7B

Amplitude modulation	Symbol
Telegraphy, direct-printing, using a frequency shifted modulating sub-carrier, with error correction, single sideband, suppressed carrier	J2B
Telephony:	
Double sideband	A3E
Single sideband full carrier	H3E
Single sideband reduced carrier	R3E
Single sideband suppressed carrier	J3E
Two independent sidebands	B8E
A combination of telephony and telegraphy (two independent sidebands)	B9W
Facsimile, with modulation of main carrier either directly or by a frequency modulated sub-carrier	A3C

Frequency (or phase) modulation

Telegraphy, by frequency shift keying without the use of a modulating audio frequency, one of two frequencies being emitted at any instant. For automatic reception (e.g. telegraphy without error correction, single channel); telegraphy, narrow-band direct-printing with error-correction (single channel); digital selective calling.	F1B
Telegraphy, by the on-off keying of a frequency modulating audio frequency or by the on-off keying of a frequency modulated emission (special case: an unkeyed emission, frequency modulated). For automatic reception	F2B
Telephony, by direct frequency modulation of the carrier	F3E
Facsimile, by direct frequency modulation of the carrier	F3C

Pulse modulation

A pulsed carrier without any modulation intended to carry information (e.g. radar)	PON

Additional characteristics for the classification of emissions are given in Appendix 6 of the I.T.U. Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services, 1982 Edition.

APPARATUS—GENERAL TECHNICAL REQUIREMENTS

10 The radio apparatus on United Kingdom ships shall comply with the requirements of the Ship Licence and the relevant Department of Trade and Industry published Performance Specification. On compulsorily-fitted ships of 300 gross registered tons and over the ship radio installation

shall, in addition, comply with the Department of Trade Merchant Shipping (Radio Installations) Regulations 1980.

OPERATION OF BROADCASTING SERVICE

11 The operation of a broadcasting service by mobile stations at sea and over the sea is prohibited.

OPERATION OF AMATEUR (MARITIME) STATIONS

11a The establishment and use of Amateur sending and receiving stations for wireless telegraphy on United Kingdom Ships is permitted. Licences granted by the Department of Trade and Industry to persons who wish to establish and use such stations and who have passed the appropriate Radio Amateur Examinations contain the terms, provisions and limitations with which the Licensee must comply. Among these are provisions to the effect that:

(a) Except where the Licensee owns the Ship, the Licensee shall not use the station unless he has in his possession at the time a copy of the written permission so to do from the current owners of the Ship, the Master of the Ship, the company responsible for the Maintenance of the Ship's wireless telegraphy apparatus and, if the Licensee is the Radio Officer of the Ship, his employer.

(b) The apparatus comprised in the Amateur Station shall be so designed, constructed, maintained and used that its use or presence on the Ship does not cause interference with any wireless telegraphy; and in particular and without prejudice to the generality of this clause, with wireless telegraphy on the Ship.

(c) The station shall not be used until it has been inspected and approved for use by an officer duly authorised by the Department of Trade and Industry.

(d) The Amateur Station shall be closed down at any time on the demand of an officer duly authorised by the Department of Trade and Industry, the Master or Radio Officer of the Ship, or any coast radio station. *Note*—If the station is closed down at the request of the Radio Officer (viz., where interference is being caused to the Ship's wireless telegraphy service), such closure should be confirmed by the Master.

AVOIDANCE OF INTERFERENCE

12 A general obligation which is imposed on all stations alike, and which is regarded as of the highest importance, is that they shall interfere as

little as possible with the working of other stations. The rules of working are largely designed to prevent such interference.

All stations shall radiate only as much power as is necessary to ensure a satisfactory service.

SUPERFLUOUS AND UNNECESSARY SIGNALLING FORBIDDEN

13 All unnecessary transmissions and superfluous signals are forbidden.

The unauthorised use of radio apparatus for the transmission or reception of correspondence of a private nature is strictly prohibited.

TEST SIGNALS

14 Tests and experiments are only permitted in ship stations in so far as they do not interfere with the service of other stations.

Any ship station making test signals must transmit its call sign or other identification at frequent intervals.

Signals used for testing and adjustment must be chosen in such a manner that there will be no confusion with a signal, abbreviation etc., having a special meaning defined in the Radio Regulations or in the International Code of Signals.

In view of the risk of interference with the reception of broadcast programmes, tests of ships' radio installations in docks and harbours of the United Kingdom must be kept to a minimum, the call sign or other identification of the ship being transmitted at frequent intervals whenever tests are being made.

USE OF RADIO APPARATUS BY SHIPS ON INLAND WATERWAYS AND IN HARBOURS OF THE UNITED KINGDOM

15 The use of radio apparatus licensed by the Department of Trade and Industry and installed on board ships is permitted in the harbours and estuaries of the United Kingdom, subject to the conditions imposed by the licence, and for the following purposes only:

(a) for the exchange of communications through coast stations;
(b) for radiodetermination and for the reception of messages sent from authorised broadcasting stations for general reception;
(c) for the exchange of communications in a Port Operations Service, or in a private mobile service licensed by the Department of Trade and Industry for a specific purpose.

On inland waterways, radio apparatus may be used as above and also for intership communication when the ships communicating are under way. Communication between a ship under way and a ship at a berth or

anchorage is not permitted other than through a coast station. Lock stations which enter into radiocommunication with ships must themselves be stations of a licensed Port Operations Service or private mobile service.

RADIOCOMMUNICATIONS BETWEEN BRITISH MERCHANT SHIPS AND H.M. SHIPS

16 As a general rule, radiotelegrams to H.M. Ships from British merchant ships are sent to a coast station for onward transmission over the Ministry of Defence communication network.

When necessary, however, H.M. Ships at sea may be called direct on 500 kHz using the collective call sign "GBXZ", on 2182 kHz or 156.8 MHz using the call "Any British Warship". A British warship replying on 500 kHz will use its international call sign; when answering on 2182 kHz or 156.8 MHz its own name will be used. Calls to warships other than those mentioned in (b) below should be made immediately following the international silence periods.

When at sea watch is maintained primarily for distress purposes, as follows:

(a) Destroyers, frigates and other ocean-going warships suitably equipped keep watch on 500 kHz at the international silence periods (i.e. 15–18 and 45–48 minutes past each hour). Three or more such ships in company maintain watch as in (b).

(b) Continuous watch on 500 kHz is maintained by flagships, aircraft carriers and cruisers when they are beyond 200 miles of the coast of the United Kingdom; within this limit watch may be reduced to that shown in (a).

(c) H.M. Ships carrying less than three radio operators keep watch according to circumstances either on 500 kHz or 2182 kHz at the appropriate international silence periods except when the ship is in visual contact with a naval shore signal station.

(d) H.M. Ships, when fitted with the appropriate radio equipment, normally maintain listening watch on 156.8 MHz at sea.

INFRINGEMENTS OF THE RADIO REGULATIONS

17 It is the duty of radio operators to report to the Department of Trade and Industry through their employers any infringements of the Radio Regulations which they may detect.

SILENCE PERIODS

18 In order to increase the safety of life at sea and over the sea, all stations of the maritime mobile service normally keeping watch on fre-

quencies in the authorised bands between 415 and 535 kHz must, during their hours of service, take the necessary measures to ensure watch on the international radiotelegraph distress frequency, 500 kHz for three minutes twice each hour beginning at x h. 15 and x h. 45 Coordinated Universal Time (U.T.C.); those normally keeping watch on frequencies in the authorised bands between 1605 and 2850 kHz must, during their hours of service, and as far as possible, take steps to keep watch on the international radiotelephone distress frequency, 2182 kHz for three minutes twice each hour beginning at x h. 00 and x h. 30 U.T.C.

TIME SIGNALS

19 Time signals are sent out from certain stations, particulars of which are contained in the List of Radiodetermination and Special Service Stations, published by the International Telecommunication Union. The clock in the radio room should be checked against time signals at least once a day to ensure correct timing, especially during the silence periods mentioned in Section **18**.

ORDER OF PRIORITY OF COMMUNICATIONS IN THE MARITIME MOBILE SERVICE AND IN THE MARITIME MOBILE-SATELLITE SERVICE

20 The term "communications" as used in this section includes radiotelegrams, radiotelephone calls and radiotelex calls.

The order of priority for communications in the maritime mobile service and the maritime mobile-satellite service shall be as follows, except where impracticable in a fully automated system in which, nevertheless, category 1 shall receive priority:

1. Distress calls, distress messages, and distress traffic.
2. Communications preceded by the urgency signal.
3. Communications preceded by the safety signal.
4. Communications relating to radio direction-finding.
5. Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operations.
6. Communications relating to the navigation, movements and needs of ships and aircraft, and weather observation messages destined for an official meteorological service.
7. ETATPRIORITENATIONS—Radiotelegrams relating to the application of the United Nations Charter.
8. ETATPRIORITE—Government radiotelegrams with priority and Government calls for which priority has been expressly requested.
9. Service communications relating to the working of the telecommunication service or to communications previously exchanged.

10. Government communications other than those shown in 8 above, ordinary private communications, RCT radiotelegrams (i.e. Red Cross Telegrams concerning persons protected in time of war by the Geneva Conventions of 12 August 1949) and press radiotelegrams.

WRECKS AND CASUALTIES

21. Ship stations are invited to furnish to United Kingdom coast stations (including Portishead Radio) information concerning wrecks and casualties at sea for the purpose of communication to marine agencies.

Messages containing information concerning the presence of dangerous ice, dangerous wrecks, or any other imminent danger to marine navigation, must be transmitted as soon as possible to other ship stations in the vicinity, and to the appropriate authorities at the first point on the coast with which contact can be established. These transmissions must be preceded by the safety signal.

DOCUMENTS TO BE CARRIED BY UNITED KINGDOM SHIPS

22. Ships must carry the following documents:

1 Ships for which a Radiotelegraph Installation is required by International Agreement

Document	Obtainable from
(a) The ship licence	Department of Trade and Industry Licensing Branch
(b) Copies of Section 11 of the Post Office (Protection) Act 1884 and of Part 1, Section 5 of the Wireless Telegraphy Act, 1949 and any subsequent legislation.	Radio Regulatory Department Waterloo Bridge House Waterloo Road London SE1 8UA
(c) The certificate(s) of the radio officer(s).	
(d) The radiotelegraph log.	Mercantile Marine Offices
(e) Alphabetical List of Call Signs of Stations used in the Maritime Mobile Service.	The Secretary General International Telecommunication Union Geneva Switzerland
(f) List of Coast Stations.	
(g) List of Ship Stations (the carriage of the supplement is optional).	

Document	Obtainable from
(h) List of Radiodetermination and Special Service Stations.	The Secretary General International Telecommunications Union Geneva Switzerland
(i) The Manual for use by the Maritime Mobile and Maritime Mobile-Satellite Services.	
(j) Telegraph tariffs of the countries for which the ship most frequently accepts radiotelegrams and CCITT Recommendations relating to Maritime Accounts.	The Owner or the Traffic Accounting Authority

2 Other Radiotelegraph Ships

Documents (a) to (g) and (i) and (j) of Section 1.

3 Ships for which a Radiotelephone Installation is required by International Agreement

Document	Obtainable from
(a) The ship licence	Department of Trade and Industry Licensing Branch Radio Regulatory Department Waterloo Bridge House Waterloo Road London SE1 8UA
(b) Copies of Section 11 of the Post Office (Protection) Act 1884, and of Part 1, Section 5 of the Wireless Telegraphy Act 1949 and any subsequent legislation.	
(c) The certificate(s) of the radio telephone operator(s).	
(d) The radiotelephone log	Mercantile Marine Officers
(e) A list of coast stations with which communications are likely to be conducted, showing watchkeeping hours, frequencies and charges.	The Owner or the Traffic Accounting Authority
(f) The provisions of the Radio Regulations and of the CCITT Resolutions and Recommendations applicable to the maritime mobile radiotelephone service, or the manual for use by the Maritime Mobile and Maritime Mobile-Satellite Services.	The Secretary General International Telecommunications Union Geneva Switzerland

4 Other Radiotelephone Ships

Documents (a) to (e) of Section 3.

SERVICE DOCUMENTS

23 The following operational documents are published by the Secretary General of the International Telecommunication Union:

DOCUMENT	
List of Coast Stations	Republished every two years with recapitulative supplements every six months.
List of Ship Stations	Republished every year with a quarterly supplement in addition to a half-yearly recapitulative supplement.
List of Radiodetermination and Special Service Stations (Radiobeacon Stations, etc.).	Republished at intervals, with recapitulative supplements every six months.
Alphabetical List of Call Signs and/or Numerical Table of Identities of Stations used by the Maritime Mobile Service and Maritime Mobile-Satellite Service (Coast, Coast Earth, Ship, Ship Earth, Radiodetermination and Special Service Stations), Ship and Ship Earth Stations Maritime Mobile Service Identities and Selective Call Numbers or Signals, and Coast and Coast Earth Stations Maritime Mobile Service Identities and Identification Numbers or Signals.	Republished every two years with recapitulative supplements every three months.

CALL SIGNS AND SIGNALS OF IDENTIFICATION

24 (1) Transmissions without identification are forbidden. Transmissions from all stations must contain an indication by which the station making the transmission can be identified. Such indications must take the form of international call signs or other internationally agreed forms of identification.

Call signs in the international series are formed as follows: The first two characters are two letters or a letter followed by a digit or a digit followed by a letter. The first two characters or in certain cases the first character of a call sign constitute the nationality identification.

(2) **Radiotelegraphy**

(a) Land and fixed stations

—a call sign of two characters and one letter; *or*
—two characters and one letter followed by not more than three digits (other than the digits 0 and 1 in cases where they immediately follow a letter);
—coast stations when using selective calling devices, a call identification number (four digits).

(b) Ship stations

—two characters and two letters; *or*
—two characters, two letters and one digit (other than the digits 0 or 1);
—when using selective calling devices, a selective call number (five digits).

However, ship stations employing only radiotelephony may also use a call sign consisting of:

—two characters (provided that the second is a letter) followed by four digits (other than the digits 0 or 1 in cases where they immediately follow a letter); *or*
—two characters and one letter followed by four digits (other than the digits 0 or 1 in cases where they immediately follow a letter).

(3) **Radiotelephony**

(a) Coast stations

—a call sign (see **24**(2)(a)); *or*
—the geographical name of the place as it appears in the List of Coast Stations, followed preferably by the word RADIO or by any other appropriate indication; *or*
—when using selective calling devices, a call identification number (four digits).

(b) Ship stations

—a call sign (see **24**(2)(b)); *or*
—the official name of the ship preceded, if necessary, by the name of the owner on condition that there is no possible confusion with distress, urgency and safety signals; *or*
—its selective call number or signal (five digits).

(c) Ship's survival craft stations

—a call sign (see **24**(2)(c)); *or*
—a signal of identification consisting of the name of the parent ship followed by two digits.

(d) Emergency position-indicating radiobeacon stations

When speech transmission is used
—the name and/or the call sign of the parent ship to which the radiobeacon belongs.

(e) Aeronautical stations

—the name of the airport or geographical name of the place followed, if necessary, by a suitable word indicating the function of the station.

(f) Aircraft stations

—a call sign (see **24**(2)(e)) which may be preceded by a word designating the owner or the type of aircraft; *or*
—a combination of characters, corresponding to the official registration mark assigned to the aircraft; *or*
—a word designating the airline, followed by the flight identification number.

(g) Aircraft survival craft stations

—a call sign (see **24**(2)(f)).

PART 2—RADIO PERSONNEL—CERTIFICATES AND SERVICE QUALIFICATIONS

CERTIFICATES

25 (1) The ship station of a United Kingdom ship may be operated only by persons holding an appropriate Certificate of Competence issued or recognised by the Secretary of State for the Department of Trade and Industry and possessing his written Authority to Operate the particular type of ship station. However, in the case of a ship radiotelephone station, provided that the radiotelephone equipment is under the control of such a person, other persons may use the radiotelephone service.

(2) Certificates of Competence are issued by the Department of Trade and Industry to applicants who qualify in the examinations detailed in Section **27**a.

A candidate who is successful in the examinations but who is not a British subject will be issued with a certificate with the "Authority" endorsed "This Authority not Valid—Non British subject".

To qualify as British for the purpose of this paragraph a candidate must be a British subject or a Commonwealth citizen (these terms are synonymous in United Kingdom law), a British protected person or a citizen of the Irish Republic and, in addition, satisfy one of the following conditions:–

(a) If he was a British subject, a British protected person or a citizen of the Irish Republic at birth.
   (i) At least one of his parents must be, or have been at death, a British subject (or Commonwealth citizen), a British protected person or a citizen of the Irish Republic; or
   (ii) The candidate must have resided in a country or territory within the Commonwealth or in the Irish Republic or been employed elsewhere in the service of the Crown or partly have so resided and partly been so employed for at least five years out of the last eight years.

(b) If he was not a British subject (or Commonwealth citizen), a British protected person or a citizen of the Irish Republic at birth, he must have resided in a country or territory within the Commonwealth or in the Irish Republic or been employed elsewhere in the service of the Crown or partly have so resided and partly been so employed for at least five years out of the last eight years.

(c) If not qualified under (a) or (b) he must satisfy the Department of Trade and Industry that he is so closely connected with a country or territory within the Commonwealth either by ancestry, upbringing or residence, or by reason of national service, that an exception may properly be made in his favour.

There are three classes of certificate, as well as a special certificate, for radiotelegraph operators, and three categories of certificate, general, restricted and restricted "VHF only" for radiotelephone operators.

The holder of a maritime radiocommunication general certificate may carry out the radiotelephone service of any ship station.

The holder of a radiotelephone operator's restricted certificate may carry out the radiotelephone service of any ship station, provided that the operation of the transmitter requires only the use of simple external controls, and excludes all manual adjustment of frequency determining elements, with the stability of the frequencies maintained by the transmitter itself within the limits of tolerance specified by Appendix 7 of the Radio Regulations, Geneva, 1982, and the peak envelope power of the transmitter does not exceed 1.5 kilowatts.

The holder of a radiotelephone operator's restricted "VHF only" certificate may carry out the radiotelephone service of any ship station only on maritime mobile frequencies in the band 156–174 MHz.

The radiotelegraph service of ships for which a radiotelegraph installation is not made compulsory by international agreements, as well as the radiotelephone service of ship stations for which only a radiotelephone operator restricted certificate is required, may be carried out by the holder of a radiotelegraph operator's special certificate. However, the radiotelephone service of all ship stations may be carried out by the holder of a radiotelegraph operator's special certificate issued after 1 January 1976.

Exceptionally, the second class radiotelegraph operator's certificate as well as the radiotelegraph operator's special certificate may be limited exclusively to the radiotelegraph service. In such cases the certificate shall be suitably endorsed.

Authorities to Operate granted by the Department of Trade and Industry specify the period over which they remain in force. However, the Secretary of State for the Department of Trade and Industry may at any time suspend an Authority to Operate with a view to its revocation if it appears to him that there are sufficient grounds so to do. In a case of suspension, the holder has the right to have the matter referred to an Advisory Committee under the First Schedule to the Wireless Telegraphy Acts 1949 to 1967. He must return the Authority to Operate to the Department of Trade and Industry upon receiving notice of suspension.

Certificates should be carefully preserved. In cases of loss through avoidable causes, a duplicate will be issued only on payment of the requisite fee.

SERVICE QUALIFICATIONS—RADIO PERSONNEL

26 (1) No person shall be qualified to be a radio officer on board a United Kingdom registered ship unless he is the holder of:–

(a) a valid certificate of competence issued by the Department of Trade and Industry in the form of:–

(i) a Maritime Radiocommunication General Certificate; or
(ii) a First or Second Class Certificate of Competence in Radiotelegraphy; or
(iii) a valid Certificate of Competence granted by an authority empowered in that behalf by the laws of a Commonwealth country or of the Irish Republic and recognised by the Department of Trade and Industry as the equivalent of the Certificates specified in sub-paragraphs (i) and (ii) above.

(b) For the purposes of sub-paragraph (a) above no certificate of competence shall be deemed to be valid on any date if granted more than 2 years before that date and either:–

(a) the holder's period, or aggregate of periods, of experience on that date is less than three months; or
(b) the holder last had experience at a time earlier than 2 years before that date, unless he can satisfy the Secretary of State by re-examination or otherwise that he still possesses all the qualifications described in his certificate and that his experience with modern equipment is adequate.

For the purpose of this paragraph the expression "experience" means experience as the operator of radiotelegraph apparatus:–

(i) at sea, as a radio officer or a radiotelegraph operator, or
(ii) on land, as an operator at a radiotelegraph station maintained for communication with ships.

For the purposes of these Regulations no person shall be deemed to be a radio officer on board a ship registered outside the United Kingdom unless he holds a valid Certificate of Competence in radiotelegraphy granted by an authority empowered or recognised in that behalf by the laws of the country in which the ship is registered and issued in accordance with the Radio Regulations.

(c) No person shall be qualified to be a radiotelephone operator on board a United Kingdom ship unless he is the holder of:–

(a) a valid Certificate of Competence in radiotelephony or radiotelegraphy issued by the Department of Trade and Industry or by an authority empowered in that behalf by the laws of some part of the Commonwealth or the Irish Republic and recognised by the Department of Trade and Industry as the equivalent of such a certificate issued by it; and
(b) a valid Authority to Operate granted by the Department of Trade and Industry to operate a radiotelegraph station or a radiotelephone station established in a ship under a licence issued by the Department of Trade and Industry.

(d) No person shall be deemed to be a radiotelephone operator on board a ship registered in a country other than the United Kingdom unless he holds a valid certificate of competence in radiotelephony or radiotelegraphy issued by an authority empowered or recognised in that behalf by the law of the country in which the ship is registered and issued in accordance with the Radio Regulations.

(e) Radiotelephone operators using the VHF radiotelephone installation.

Every radiotelephone operator using the VHF radiotelephone installation shall have practical knowlege of operating the VHF equipment and general knowledge of the Radio Regulations applying to VHF radiotelephone communications and specifically of that part of those Regulations relating to distress signals and traffic, alarm, urgency and safety signals.

It is necessary that maritime radiocommunication general certificates, first and second class radiotelegraph operators' certificates of competence issued by the Department of Trade and Industry should show when the holder has completed six months' twelve months' and two years' service as operator on board ship. Radio Officers should therefore present their certificates to a Radio Surveyor for endorsement as and when the foregoing service qualifications have been obtained.

SERVICE QUALIFICATIONS—CHIEF RADIO OFFICERS

(2) The service qualifications for chief radio officers

The service qualifications for chief radio officers on board United Kingdom ships (other than Fishing Vessels) are governed by the following separate sets of Regulations, both of which have to be met.

(a) The I.T.U. Radio Regulations, which specify the classes of certificates of competence and service requirements for personnel of ship stations operating in the public correspondence service for the four categories of ship station specified in Section **7** (3); and

(b) the Merchant Shipping (Radio Installations) Regulations 1980, which specify the classes of certificates of competence and service requirements for a chief radio officer on passenger ships carrying more than 250 passengers, passenger ships carrying 250 passengers or less and for cargo ships.

The Table below summarises the requirements under (a) and (b) above:

I.T.U. Radio Regulations		Merchant Shipping (Radio Installations) Regulations 1980	
Public Correspondence			
Category of Ship Station	1. Class of Certificate 2. Service Qualification	Type of Ship	1. Class of Certificate 2. Service Qualification
CATEGORY I (24 hrs. continuous watch)	1. M.R.G.C. or 1st Class P.M.G. 2. 1 year's experience at a coast radio station or on board ship of which at least 6 months shall have been on board ship	Passenger Ships carrying over 250 passengers	1. M.R.G.C. or 1st Class P.M.G. 2. Minimum of 2 years' experience at sea
Category II (16 hrs. watch per day)	1. M.R.G.C. or 1st Class P.M.G. or 2nd Class P.M.G. 2. 6 months' experience at a coast radio station or on board ship of which at least 3 months shall have been on board ship	Passenger Ships carrying 250 passengers or less	1. M.R.G.C. or 1st Class P.M.G. or 2nd Class P.M.G. 2. Minimum of 1 year's experience at sea
Category III (8 hrs. watch per day)	—ditto—	Cargo Ships	1. M.R.G.C. or 1st Class P.M.G. or 2nd Class P.M.G. 2. Minimum of 6 months' experience at sea
Category IV (Stations maintaining a watch shorter than those of Category III or of no fixed hours of watch.	1. M.R.G.C. or 1st Class P.M.G. or 2nd Class P.M.G. 2. If the ship is required by international agreements to carry a radio telegraph operator – adequate seagoing experience. Otherwise no service requirement.		

27 (1)*(a) Radiotelegraph Ships*

(i) Every radiotelegraph ship which is provided with a radiotelegraph auto alarm shall, upon proceeding to sea, be provided with radio officers as follows:

—Two radio officers on each passenger ship carrying or certificated to carry more than 250 passengers and engaged on a voyage exceeding 16 hours' duration.
—One radio officer on all other radiotelegraph ships.

(ii) Every United Kingdom radiotelegraph ship which is not provided with a radiotelegraph auto alarm shall, upon proceeding to sea, be provided with radio officers as follows:

(a) Three radio officers if at sea for more than 48 hours between consecutive ports.
(b) Two radio officers if at sea for more than 12 hours but not more than 48 hours between consecutive ports.
(c) One radio officer if at sea for not more than 12 hours between consecutive ports.

(b) Radiotelephone Ships

(i) Every radiotelephone ship which is fitted with a radiotelephone station in accordance with these Regulations shall carry the number of radiotelephone operators specified in paragraph (ii) below. If he is the holder for the time being of a valid certificate for radiotelephony, the master, an officer or a member of the crew may be a radiotelephone operator.

(ii) The specified number of radiotelephone operators shall be:

(a) Ships of 300 tons and more, but less than 500 tons—at least one operator.

(b) Ships of 500 tons and more, but less than 1600 tons—at least two operators; provided that if a ship carries one radiotelephone operator exclusively employed for duties related to radiotelephony, it shall not be necessary to carry a second radiotelephone operator.

(2) **Qualifications Required to serve as a Radio Officer or Radiotelephone Operator in UK Registered Ships**

Merchant Shipping (Radio Installations) (Amendment) Regulations 1984

(2.1) The Merchant Shipping (Radio Installations) (Amendment) Regulations 1984 came into operation on 28 April 1984, the date on which the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (the Convention) enters into force internationally. These Regulations provide that holders of a valid certificate of competency as a radio officer or radiotelephone operator issued on or after 28 April 1984 (and a valid Authority to Operate) shall, in order to be qualified to serve in a capacity in UK ships which requires such a certificate, also hold a certificate (here called a Convention certificate) confirming that the holder satisfies the additional knowledge and training requirements of the Convention. These are set out in a schedule to the Regulations and are reproduced in the Annex below. The Regulations *do not* apply to holders of certificates of competency as a radio officer or radiotelephone operator issued *before* 28 April 1984.

(2.2) Deck officers who qualify for the issue of a first certificate of competency will have a R/T Restricted certificate required by radiotelephone operators on board certain UK ships. As the training and examination for a first certificate of competency as a deck officer, including that for the R/T certificate, covers all the additional requirements for a radiotelephone operator specified in the Convention, a Convention certificate referred to in paragraph (2.1) above will be issued to these holders of R/T certificates (and a valid Authority to Operate) issued from 28 April 1984 when they obtain a first certificate of competency as a deck officer.

(2.3) *Holders of MRGCs, R/T General certificates and also holders of* R/T Restricted certificates other than deck officers covered by the preceding paragraph, issued on or after 28 April 1984, who also hold an Authority to Operate and who intend to serve at sea in a capacity which requires such a certificate should apply for the Convention certificate to British Telecom International, Maritime Radio, Room 414, 43 Bartholomew Close, London EC1A 7HP. Each application should be accompanied by the appropriate radio certificate of competency and the following documentary evidence of compliance with the requirements of the Convention:

(a) a Department of Transport First Aid at Sea Certificate;
(b) a basic sea survival course attendance certificate;
(c) an MNTB Stage 1 (2-day) fire-fighting course attendance certificate;

(Details of courses available to satisfy these requirements which are not covered by courses of study at marine electronics and radio colleges may be obtained from the Secretary, Merchant Navy Training Board, 30/32 St. Mary Axe, London EC3A 8ET).

(d) written confirmation from a recognised marine electronics and radio college that the college course attended has included the specific radio items in the Annex to this Notice.

(2.4) Candidates for a radio certificate of competence referred to in paragraph (2.3) above, who also qualify for a UK Authority to Operate, may submit the evidence set out in that paragraph for a Convention certificate to British Telecom International (BTI) before they receive a certificate of competency. The Convention certificate will then be issued by BTI at the same time as the radio certificate of competence without further application.

(2.5) At present the holder of an appropriate radio certificate of competence issued by a Commonwealth country or the Irish Republic, and a valid UK Authority to Operate, may also qualify as a radio officer or radiotelephone operator on a UK registered ship. Holders of these certificates issued from 28 April 1984 may also apply to BTI in accordance with paragraph (2.3) for a Convention certificate.

Additional Knowledge and Training Requirements for Radiotelephone Operators and Radio Officers

(a) The provision of radio services in emergencies including:
  (i) abandon ship;
  (ii) fire aboard ship;
  (iii) partial or full breakdown of the radio station.

(b) The operation of lifeboats, liferafts, buoyant apparatus and their equipment, with special reference to portable and fixed lifeboat radio apparatus and emergency position-indicating radio beacons.

(c) Survival at sea.

(d) First aid.

(e) Fire prevention and fire-fighting with particular reference to the radio installation.

(f) Preventative measures for the safety of ship and personnel in connexion with hazards related to radio equipment including electrical, radiation, chemical and mechanical hazards.

(g) The use of the IMO Merchant Ship Search and Rescue Manual (MERSAR) with particular reference to radiocommunications.

(h) Ship position-reporting systems and procedures.

(i) The use of the International Code of Signals and the IMO Standard Marine Navigational Vocabulary.

(j) Radio medical systems and procedures.

(3) **Merchant Shipping (Radio) (Fishing Vessels) Rules 1974**

(a) Fishing vessels prescribed under the above Rules are classified as follows:

CLASS I

Fishing vessels of 12 metres in length or over engaged on voyages any part of which are outside the area specified in Schedule 2 to the Merchant Shipping (Radio) (Fishing Vessels) Rules, 1974.

CLASS II

Fishing vessels of 24.4 metres in length or over engaged only on voyages wholly within the area specified in Schedule 2 to the above Rules.

CLASS III

Fishing vessels of 12 metres in length or over but of less than 24.4 metres in length engaged only on voyages wholly within the area specified in Schedule 2 to the above Rules.

(b) The service qualifications, and radio personnel, required to be carried on the above classes of fishing vessel are set out in the Tables below:

Requirements for Fishing Vessels Equipped with Radiotelegraphy

Class of Vessel	Number of Radio Operators Required*	Sea Service Experience of at least one of the Radio Operators
I	At least two radio operators at least one of whom shall be a radiotelegraph operator holding a maritime radiocommunication general certificate, a first or second class radiotelegraph operator's certificate, or a radiotelegraph operator's special certificate. Other operators may hold any of the foregoing qualifications or a general or restricted radiotelephone operator's certificate.	Adequate

Requirements for Fishing Vessels Equipped with Radiotelephony

Class of Vessel	Number of Radio Operators Required*	Sea Service Experience of at least one of the Radio Operators
II	At least two radiotelephone operators holding a maritime radiocommunication general certificate, a first or second class radiotelegraph operator's certificate, a radiotelegraph operator's special certificate, or a general or restricted radiotelephone operator's certificate.	Adequate

* Referred to in Merchant Shipping (Radio) (Fishing Vessels) Rules as "Radiotelegraph Operators" and "Radiotelephone Operators" respectively.

Class of Vessel	Number of Radio Operators Required*	Sea Service Experience of at least one of the Radio Operators
III	At least one radiotelephone operator holding a maritime radiocommunication general certificate, a first or second class radiotelegraph operator's certificate, a radiotelegraph operator's special certificate, or a general or restricted radiotelephone operator's certificate.	Adequate

(4) **Radio installations not prescribed by international regulations**

Radio installations on United Kingdom ship stations which have not been prescribed by international agreements:

(a) Radiotelegraph/Radiotelephone installations: One radio operator who is the holder of a valid Maritime Radiocommunication General Certificate, First or Second class P.M.G. certificate, or, a radiotelegraph operator's Special certificate.

(b) Radiotelephone installations only:

(i) One radiotelephone operator who is the holder of a valid radiotelephone operator's General certificate; or

(ii) one radiotelephone operator who is the holder of a valid radiotelephone operator's Restricted certificate, when working on frequencies of the maritime mobile service, provided that the operation of the transmitter requires only the use of simple external controls, and excludes all manual adjustment of frequency determining elements, with the stability of the frequencies maintained by the transmitter itself within the limits of tolerance specified by Appendix 7 of the Radio Regulations 1982, and the peak envelope power of the transmitter does not exceed 1.5 kW.

(iii) VHF ONLY INSTALLATIONS. One radiotelephone operator who is the holder of a certificate of competence as specified in (b) (i) or (b) (ii) above, or, who is the holder of a valid radiotelephone Restricted (VHF ONLY) certificate.

27a Examinations for the award of Certificates of Competence in Radio Communications, Radiotelegraphy and Radiotelephony issued by the Department of Trade and Industry

1 General Regulations

1.1 Certificates of Competence

1.1.1 There is one certificate of competence in radiocommunications which is the Maritime Radiocommunication General Certificate.

1.1.2 There are 3 certificates of competence in radiotelegraphy viz. Special, Second Class and First Class. Examinations in the UK for the Second and First Class Certificates in radiotelegraphy ended in March 1972, although the certificates of these classes will remain valid subject to the requirements of the International Radio Regulations and of the relevant Merchant Shipping (Radio Installations) Regulations.

1.1.3 There are 3 certificates of competence in radiotelephony viz. General, Restricted and "VHF only". Enquiries relating to "VHF only" examinations should be addressed to the Royal Yachting Association, Victoria Way, Woking, Surrey GU21 1EQ.

1.1.4 All other enquiries should be addressed to The Examination Group, Maritime and Aeronautical Radio Executive, British Telecom International, Room 414, 43 Bartholomew Close, London EC1A 7HP.

1.2 Application forms and particulars of fees payable for all examinations other than "VHF only" are obtainable from the address shown in 1.1.4. Fees should be paid by crossed cheque, Giro, postal order or money order made payable to BT PLC.

1.3 Examinations for the MRGC, the Special certificate and the General certificate in radiotelephony are conducted at centres where apparatus and examination facilities have been approved by the Department of Trade and Industry as suitable for the purpose.

1.3.1 A list of the names and addresses of centres at which examinations are held is given in Section **27b** to this section.

1.3.2 Examinations for the Restricted radiotelephony certificates are conducted by mutually agreed arrangement with the local Senior Radio Surveyors whose addresses are given in Section **27c**.

2 Maritime Radiocommunication General Certificate

2.1 The certificate states that the holder has given proof, by written and practical examination, of the technical and professional knowledge and qualifications listed below:–

2.1.1 Knowledge of the principles of electricity and the theory of radio and of electronics sufficient to meet the requirements of paragraphs 2.1.2, 2.1.3 and 2.1.4 below.

2.1.2 Theoretical knowledge of modern radiocommunication equipment, including marine radiotelegraph and radiotelephone transmitters and receivers, use of single side-band and frequency modulation techniques, marine antenna systems, automatic alarm devices, radio equipment for lifeboats and other survival craft direction-finding equipment together with all auxiliary items including power supply (such as motors, alternators, inverters, rectifiers and accumulators), as well as a general knowledge of the principles of other apparatus generally used for radionavigation, with particular reference to maintaining the equipment in service.

2.1.3 Practical knowledge of the operation, adjustment and maintenance of the apparatus mentioned in paragraph 2.1.2 above, including the taking of direction-finding bearings and knowledge of the principles of the calibration of radio direction-finding apparatus.

2.1.4 Practical knowledge necessary for the location and remedying of faults (using appropriate testing equipment and tools) which may occur at sea in the apparatus mentioned in paragraph 2.1.2 above.

2.1.5 Ability to send correctly by hand and to receive correctly by ear, in the Morse code, code groups at a speed of 16 groups a minute, and plain language text at a speed of 20 words a minute. Ability to send correctly and to receive correctly by radiotelephone.

2.1.6 Knowledge of the Regulations applying to radiocommunications, knowledge of the documents relating to charges for radiocommunications and knowledge of the provisions of the International Convention for the Safety of Life at Sea (SOLAS) which relate to radio.

2.1.7 A sufficient knowledge of world geography, especially the principal shipping and the most important telecommunications routes.

3 Examination for the Maritime Radiocommunication General Certificate

3.1 An entry qualification will be required by candidates before they may attempt the MRGC examination.

3.2 The entry qualifications required have been selected from the following BTEC/SCOTVEC programs and are listed below:

(i) BTEC Diploma in Telecommunications (Marine) and the Higher Certificate Radio and Radar (Marine);
(ii) SCOTVEC Diploma and Higher Certificate in Marine Electrical and Electronic Engineering.

3.2.1 Details of entry qualifications and courses in England, Wales and Northern Ireland may be obtained from one of the colleges listed in Section 27b or from BTEC, Central House, Upper Woburn Place, London WCIH 0HH. Telephone 01-388 3288.

3.2.2 Details of entry qualifications and courses in Scotland may be obtained from one of the colleges listed in Section 27b or from SCOTVEC, 38 Queen Street, Glasgow G1 3DY. Telephone 041-248 7900.

3.3 The examination leading to the award of a Maritime Radiocommunication Certificate includes the following subjects:

3.3.1.1 Morse sending and receiving	single subject
3.3.1.2 Watchkeeping and communications radiotelegraph	related part subjects
3.3.1.3 Watchkeeping and communications radiotelephone	

3.3.1.4 Regulations and procedures	related part subjects
3.3.1.5 Use of international documents, routes, charges etc.	
3.3.1.6 Safety of Life at Sea—Radiocommunications	single subject
3.3.1.7 Technical practical knowledge paper	single subject
3.3.1.8 Operational and performance tests	related part subjects
3.3.1.9 Fault tracing tests	
3.3.1.10 To construct an item of equipment in accordance with the workshop practice specification	related part subjects
3.3.1.11 Replace faulty components and solder components in radio circuits	

4 Conditions of the MRGC Examination

4.1 A candidate who fails in his initial attempt at the examination will, at the first retrieval attempt, be re-examined in the individual subject(s) in which he failed together with the "Morse" and "Watchkeeping and Communications" subjects.

4.2 Candidates who fail a first retrieval attempt at the examination will be re-examined in the whole of the examination at any subsequent retrieval attempt.

4.3 Candidates will not be re-examined for the MRGC within 3 months of a failure and will be re-examined only at one of the officially approved examination centres at the normally arranged dates for individual colleges.

4.4 Candidates who fail the MRGC after 4 attempts will have their suitability to re-enter the examination reviewed by the college using reassessment in the Radiocommunication IV and V (or equivalent) units.

5 External Candidates

5.1 Candidates who for some reason cannot be accommodated under the BTEC/SCOTVEC scheme should be assessed by the Head of Department of the college for their eligibility to enter to the MRGC examination.

6 Conversions

6.1 Radio Officers converting from PMG certificates to the MRGC should be assessed for the entry qualifications by the Head of Department of the college at which he is attending. Candidates successfully assessed will be examined in the appropriate parts of the MRGC examination in the usual way.

7 Special Certificate of Competence in Radiotelegraphy

7.1 The Special Certificate states that the holder has been examined in radiotelegraphy and has passed in:

7.1.1 Knowledge of the adjustment and practical working of radiotelegraph and radiotelephone apparatus.

7.1.2 Sending by hand and receiving by ear in the Morse code, messages in plain language at a speed of not less than 20 words a minute, and in code groups at a speed of not less than 16 groups a minute.

7.1.3 Practical knowledge of radiotelephone operation and procedure.

7.1.4 Sending and receiving spoken messages correctly by telephone.

7.1.5 General knowledge of the regulations applying to the exchange of radiocommunications and particularly of the part of those regulations relating to the safety of life.

7.2 Conditions of the Examination

7.2.1 Candidates who fail must wait at least six weeks before re-examination.

8 Radiotelephone Operator Certificates

8.1 RESTRICTED CERTIFICATE

8.1.1 The Restricted Certificate states that the holder has been examined in radiotelephony and has passed in:

8.1.1.1 Practical knowledge of the adjustment of radiotelephone apparatus;

8.1.1.2 Practical knowledge of radiotelephone operation and procedure;

8.1.1.3 Sending and receiving spoken messages correctly by telephone;

8.1.1.4 General knowledge of the regulations applying to radiotelephone communications and particularly of that part of those regulations relating to the safety of life.

8.1.2 The examination consists of practical and oral tests. Candidates are required:

8.1.2.1 To operate a radiotelephone installation, including changing frequency, varying the power of the transmitter and charging of batteries;

8.1.2.2 To possess a knowledge of radiotelephone procedure in general and the Distress regulations in particular;

8.1.2.3 To maintain a radiotelephone log;

8.1.2.4 To send and receive messages correctly by telephone.

8.3 GENERAL CERTIFICATE

8.3.1 The General Certificate states that the holder has been examined in radiotelephony and has passed in:

8.3.1.1 Knowledge of the elementary principles of radiotelephony;

8.3.1.2 Detailed knowledge of the practical operation and adjustment of radiotelephone apparatus;

8.3.1.3 Sending and receiving spoken messages correctly by telephone;

8.3.1.4 Detailed knowledge of the regulations applying to radiotelephone communications and procedures and particularly of that part of those regulations relating to safety of life.

8.3.2 The Syllabus for the examination for a Radiotelephone General Certificate of Competency is as follows:

8.3.2.1 KNOWLEDGE OF THE ELEMENTARY PRINCIPLES OF RADIOTELEPHONY

Transmitters:—Simple explanation of the production of the carrier wave; knowledge of how a carrier wave is modulated—it is not necessary to know the various methods of producing a modulated wave but candidates should be able to draw the modulation envelope and appreciate the effects of over or under modulation; simple explanation of the elimination of the upper or lower sideband and a knowledge of its effect on the frequency spectrum, the range of the transmitter, and its reduction of interference to other users of the frequency band; simple explanation of a harmonic generator for the production of radio frequencies in s.s.b. transmitters.

Receivers:—Knowledge of the superhet receiver and the function of each stage; elementary knowledge of frequency changing and detection; description of the modulated envelope before and after detection; elementary knowledge of s.s.b. reception—carrier re-insertion, frequency stability.

General:—Simple explanation of the valve as an oscillator; simple explanation of the valve as an amplifier; simple explanation of the transistor as an amplifier; elementary knowledge of the conversion of sound waves into electrical energy by means of a microphone, elementary knowledge of the conversion of electrical energy into sound waves by means of a loudspeaker or headphones; elementary properties of antennas with regard to height, length and leakage resistance—effect of dirty insulators, salt water, fresh water and rainwater; simple explanation of the propagation of electromagnetic waves; knowledge of maintenance and care of batteries—battery voltage on and off load, hydrometer readings.

8.3.2.2 DETAILED KNOWLEDGE OF THE PRACTICAL OPERATION AND ADJUSTMENT OF RADIOTELEPHONE APPARATUS

Candidates will be required to tune s.s.b. transmitters on both main antenna and artificial antenna (if fitted) and to test the two-tone generator into the artificial antenna, change frequency, vary the power and tune the associated s.s.b. receiver.

8.3.2.3 SENDING AND RECEIVING SPOKEN MESSAGES BY TELEPHONE

This test should include a detailed log and entries should show silence periods, initial radio contact with the coast station, and all procedure terminating in the completion of traffic on working frequencies.

8.3.2.4 Detailed knowledge of the regulations applicable to radiotelephone communications and particularly of that part of those regulations relating to the safety of life at sea.

The test will be a written examination in which ten questions should be answered in 30 minutes.

8.3.2.5 KNOWLEDGE OF SIMPLE MAINTENANCE ON THE EQUIPMENT

Tracing and clearing simple faults. The faults will not involve the use of a soldering iron but be confined to fuses, valves, antennas and switches. The candidate should appreciate the significance of the various transmitter meter readings and the absence of any particular meter reading.

9 Revalidating Tests—Merchant Shipping (Radio Installations) Regulations 1980

9.1 Before being allowed to re-join as a radio officer in a ship that is compulsorily equipped with radio apparatus, the holder of a Maritime Radiocommunication General Certificate, a 1st Class, 2nd Class or Special Certificate in Radiotelegraphy which at the date of inspection is more than two years old is, under Rule 15(2) of the Merchant Shipping (Radio Installations) Regulations 1980, and Rule 10(3) of the Merchant Shipping (Radio) (Fishing Vessels) Rules 1974, required to satisfy the Administration by reexamination or otherwise that he still possesses all the qualifications described in his certificate, if he has not had a total of three months experience, or, if his last experience was more than two years previously.

9.1.1 The procedure is as follows:—

9.1.1.1 Where the holder has not had a total of three months experience, or,

9.1.1.2 where the absence from sea is more than two years but less than six years, the applicant will be tested in:—

(a) morse sending and receiving
(b) regulations, procedures and use of I.T.U. documents (paper 50 mins)
(c) safety of life at sea (paper 10 mins)
(d) operation and performance of equipment (45 mins)

9.1.2 Alternatively, in the case of 9.1.1.2 the requirement may be satisfied by the holder gaining a further minimum period of 6 months sea service as a junior radio officer. The term junior radio officer refers to a radio officer who is not a requirement prescribed for the classes of vessel specified in Regulations 26 and 27 of the Merchant Shipping (Radio Installations) Regulations 1980, or, in the Merchant Shipping (Radio) (Fishing Vessels) Rules 1974, Rules 10(3)(b).

9.1.3 Where the absence from sea is more than six years the applicant will be tested in:—

(a) morse sending and receiving
(b) regulations, procedures and use of I.T.U. documents (paper 50 mins)
(c) safety of life at sea (paper 10 mins)
(d) watchkeeping and communications
(e) operation and performance of equipment (45 mins)
(f)* fault finding and oral questions on marine equipment.

The test will be conducted on modern marine equipment including s.s.b.

9.2 For the purpose of these requirements the expression "experience" means experience as the operator of radiotelegraphy apparatus:—

9.2.1 at sea, as a Radio Officer or Radiotelegraph Operator, or,

9.2.2 on land, as an operator at a radiotelegraph station maintained on land by British Telecommunications PLC for communication with ships.

9.3 The experience under 9.2.2 validates a certificate for employment on board a ship where more than one radio officer is required to be carried, but does not count towards the sea-service requirement under Regulation 26(3) of the Merchant Shipping (Radio Installations) Regulations 1980.

* Oral questions on marine equipment will be based on the Technical Practical Knowledge paper set in the M.R.G.C. certificate examination. The candidate has the option of answering the paper in writing if he so prefers.

27b List of Approved Examination Centres

Name of Authority and Address	Telephone Number
Aberdeen Technical College Gallowgate Aberdeen AB9 1DN	0224 640366
R M S Wray Castle Ambleside Cumbria LA22 0JB	096 63 2320
Barking College of Technology Dagenham Road Romford Essex RM7 0MU	0708 66841–7
Brunel Technical College Department of Marine Electronics Ashley Down Bristol BS7 9BU	0272 41241
South Glamorgan Institute of Higher Education (Llandaff Centre) Western Avenue Cardiff CF5 2YB	0222 551111 Ext 67
Leith Nautical College 24 Milton Road East Edinburgh EH15 2PP	031 669 8461
The Nautical College Broadwater Fleetwood Lancs FY7 8JZ	03917 79123
Glasgow College of Nautical Studies 21 Thistle Street Glasgow G5 9XB	041 429 3201/4367
Head of Maritime Electronics Division Hull College of Higher Education Queen's Gardens Hull HU1 3DH	0482 224121
Riversdale College of Technology Riversdale Road Liverpool L19 3QR	051 427 1227 (5 lines)
Marine Radio & Electronics Section Department of Electrical Communications & Engineering Central Manchester College Openshaw Centre	061 223 8282

Name of Authority and Address	Telephone Number
Whitworth Street Openshaw Manchester M11 2WH	
College of Further Education St Peter's Street Lowestoft Suffolk NR32 2NB	0502 4177/8
Merchant Navy College Greenhithe Kent DA9 9NY	0322 845050 Ext 210
University of Ulster Shore Road Newtown Abbey County Antrim BT37 0QB	0231 65131
Plymouth College of Further Education Kings Road Devonport Plymouth PL1 5QG	0752 264730
Southampton College of Higher Education East Park Terrace Southampton SO9 4WW	0703 29381
South Tyneside College Electrical Engineering and Radio Department St George's Avenue South Shields Tyne & Wear NE34 6ET	0632 560403

27c Radio surveyors

Town	Address	Telephone Number
ABERDEEN	Marine Survey Office Department of Transport Marine Office Blaikies Quay Aberdeen AB1 2PB	0224 574122
BELFAST	Marine Survey Office Department of Transport Custom House Belfast BT1 3EU	0232 234466

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Town	Address	Telephone Number
CARDIFF	Marine Survey Office Department of Transport Marine Office Oxford House Hill Street Cardiff CF1 2ID	0222 29556
FALMOUTH	Marine Survey Office Department of Transport Imperial Buildings Bar Road Falmouth TR11 4NW	0326 312761
GLASGOW	Marine Survey Office Department of Transport 15 Muirhouse Street Glasgow C41 1QW	041 424 0330
HULL	Marine Survey Office Department of Transport Posterngate Kingston upon Hull North Humberside HU1 2JN	0482 223066
EDINBURGH	Marine Survey Office Department of Transport 1 St John's Place Leith Edinburgh EH6 7EL	031 554 2028
LIVERPOOL	Marine Survey Office Department of Transport Room 208 2nd Floor Graeme House Derby Square Liverpool L2 7SQ	051 236 6901
LONDON	Marine Survey Office Department of Transport Walsingham House 35 Seething Lane London EC3N 4AS	01 481 8081
NEWCASTLE ON TYNE	Marine Survey Office Department of Transport Government Building Broadway West Gosforth Newcastle on Tyne NE3 2JL	091 2857171

Town	Address	Telephone Number
SOUTHAMPTON	Marine Survey Office Department of Transport South Western House Canute Road Southampton SO1 1NP	0703 220917/ 223061

PART 3—SHIPS' RADIO LOGS

LOGS OF SHIPS EQUIPPED WITH RADIOCOMMMUNICATION APPARATUS

Required by the Merchant Shipping (Radio Installations) Regulations 1980 and Merchant Shipping (Radio) (Fishing Vessels) Rules 1974.

28 (1) Under the Merchant Shipping (Radio Installations) Regulations 1980 the Merchant Shipping (Radio) (Fishing Vessels) Rules 1974, and the Radio Regulations, every ship equipped with a radiotelegraph installation must carry a radiotelegraph log, and every ship fitted with a radiotelephone installation a radiotelephone log. (A specimen of each type of log is given in Sect. **30a**.) The Radiotelegraph Log must be kept in the radiotelegraph room during the voyage, and the Radiotelephone Log near the radiotelephone installation. The logs must be available for inspection by any officer authorised by the Department of Transport or the Department of Trade and Industry.

(2) **Radio Log—Radiotelegraph Ship**

The radio log book, the form of which is in Sect. **30a**, is compiled in two parts which shall be completed in accordance with the following:—

Part I

(a) *Section A*: Particulars of the radio officers on board.
(b) *Section B*: Particulars of all batteries on board used as a source of energy for any part of the radio installation.
(c) *Section C*: A daily record of the off-load and on-load voltage condition of each battery listed in Section B and details of charging and maintenance, including replacement, of each such battery;
(d) *Section D*: A monthly record of a full examination of each battery listed in Section B, including where appropriate, the condition of each cell.

Section B, C and D are to be prepared in duplicate. The carbon copies (perforated sheets) must be detached prior to the handing-in of the log and carefully filed in the radiotelegraph room so that a permanent record of the batteries will always be available for the information of succeeding radio officers, shore maintenance staff and Radio Surveyors.

Part II

Every radio officer shall, when keeping radio watch, enter in the radio log:—

(a) The name of the radio officer and the times at which the watch commences and ends.
(b) The times at which radio watch is for any reason discontinued, together with the reason and the time at which radio watch is resumed.
(c) Details of the watch kept on the international radiotelegraph distress frequency during silence periods.
(d) All communications relating to distress traffic in full.
(e) Details of urgency and safety communications.
(f) A summary of communications exchanged between the ship station and coast stations or other ship stations, including the serial numbers and the dates of any messages passed.
(g) A record of all incidents connected with the radio service, including the radiotelephone installation and the VHF radiotelephone installation which may appear to be of importance to safety of life at sea.
(h) Details of equipment tests and battery and reserve power checks as listed below.
(i) At least once a day when the station is open, a record of the time shown by the clock in each radiotelegraph room in comparison with coordinated universal time and any correction made in respect of that clock. In addition the local time in use by the ship shall be recorded daily.
(j) If the ship's rules permit, the position of the ship at least once a day and preferably at midday.

The entries in Part II of the log are to be prepared in duplicate. The carbon copies (perforated sheets) must be detached and carefully fastened together in correct order to form a copy of the diary, which should be finally disposed of in the manner directed by the operating company or the shipowner as the case may be.

Notes on the Keeping of the Log. The importance of keeping the log correctly by duly making all entries at the proper time and with the strictest regard to form cannot be too strongly stressed. Care should be taken when there is a change of staff to see that the log, when handed over, is

complete and up to date. Entries must always be made in order of time and date and no blanks left. The entry "on watch" must be made by the operator beginning a watch, followed by his signature. The entry "off watch" must be made by the operator being relieved or terminating his watch, followed by his signature. All log entries must be completed at the end of the watch by the operator responsible for the watch entries. The use of initials or signs cannot be accepted in lieu of the operator's signature.

If the number of pages in Part II of the log is insufficient, recourse should be made to a further copy or copies of Part II. Any copies used in continuation should be clearly marked with the order of sequence.

Inspection of the Log. Both parts of the log must be inspected daily and signed by the operator in charge. Both parts of the log should be submitted to the Master for inspection and his attention drawn to any entries of importance or interest. The Master must sign each day's entries in Part II of the log.

Disposal of the Log. In the case of foreign-going ships on single voyage agreements, Parts I and II of the log (with any continuation books) must be delivered, along with the Official Log Book, to the Superintendent of the Marine Office before whom the ship's crew is discharged. This delivery must be made within 48 hours after the ship's arrival at her final port of destination in the United Kingdom. In the case of ships on half-yearly or other running agreements the complete radiotelegraph log for the previous half-year must be delivered to a Superintendent of a Mercantile Marine Office within 21 days of the termination of the current agreement. Before the radiotelegraph log is so delivered care should be taken to remove and dispose of the carbon copies as directed above.

Equipment Tests and Battery and Reserve Power Checks

1.DAILY

(a) Every radio officer who finds a radiotelegraph auto alarm equipment in operation when going on duty shall test the efficiency of the audible alarm system in the radiotelegraph operating room.

(b) Every radio officer who leaves a radiotelegraph auto alarm equipment in operation when going off duty shall test the efficiency of the audible alarm system in the radiotelegraph operating room.

(c) The proper functioning of the radiotelegraph auto alarm installation shall be tested at least once each day by listening to signals and comparing them with similar signals received on the radiotelegraph distress frequency on another receiver, and by operating the complete audible alarm system.

(d) The reserve radiotelegraph transmitter, if not used for communica-

tions, shall be tested at least once each day using a suitable artificial antenna.

(e) The radiotelephone distress frequency watch receiver shall be tested at least once each day using the means provided in accordance with regulation 14(7)(b), and by listening to signals and, where practicable, comparing them with similar signals received on the radiotelephone distress frequency on another receiver.

(f) Batteries providing a source of energy for any part of the radio installation shall be tested daily and, where necessary, brought up to the fully charged condition.

(g) Where the reserve source of energy is not a battery (for example, a motor generator), the reserve source of energy shall be tested daily.

2. WEEKLY

(a) The reserve radiotelegraph transmitter shall be tested at least once every seven days using the main antenna and, if provided, the reserve antenna.

(b) The radiotelegraph alarm signal keying device shall be tested at least once every seven days using a transmitter set to low power, tuned to a frequency other than the radiotelegraph distress frequency and connected to a suitable artificial antenna.

(c) The radiotelephone alarm signal generating device shall be tested at least once every seven days using the means provided in accordance with regulation 14(7)(a).

(d) Motor life-boat fixed radiotelegraph installations and portable radio equipment for survival craft shall be tested at least once every seven days using suitable artificial antennas.

(e) Batteries forming part of a motor life-boat fixed radiotelegraph installation and survival craft portable radio equipment shall be tested weekly and, where appropriate, brought up to the fully charged condition. Where non-rechargeable batteries are provided in survival craft portable radio equipment as a source of energy, the expiry date of the batteries shall be checked and the batteries replaced when necessary.

3. MONTHLY

(a) Motor life-boat fixed radiotelegraph installations and portable radio equipment for survival craft shall be tested at least once a month using an antenna provided with the installation or equipment. In the case of motor life-boat fixed radiotelegraph installations, the test shall, where practicable, be carried out with the life-boat floating in the sea.

(b) Batteries providing a source of energy for any part of the radio installation shall be tested at least once a month by means of a hydro-

meter where practicable, or, where a hydrometer cannot be used, by a suitable load test. A check shall also be made of the security of the battery and its connections and the condition of the battery and its compartment.

(3) **Radio Log—Radiotelephone Ship**

The radio log book, the form of which is in Sect. **30a**, is compiled in two sections which shall be completed in accordance with the following:

Section A—Particulars of the radiotelephone operators on board.
Section B—Diary of the radio service.

Every radiotelephone operator shall, when keeping radio watch, enter in the radio log:

(a) the name of the radiotelephone operator and the times at which the watch commences and ends;
(b) the times at which radio watch is for any reason discontinued, together with the reason and the time at which radio watch is resumed;
(c) a summary of communications exchanged between the ship station and coast stations or other ship stations, including the serial numbers and the dates of any messages passed;
(d) a summary of all communications relating to distress, urgency and safety traffic;
(e) a record of all incidents connected with the radio service, including the radiotelephone installation and the VHF radiotelephone installations, which occur during the watch and appear to be of importance to safety of life at sea;
(f) details of the tests and checks required by Part II of the radiotelegraph log (page 39), as appropriate to a radiotelephone station;
(g) if the ship's rules permit, the position of the ship at least once a day.

Notes on the Keeping of the Log. It is important that the log should be correctly kept by making all entries at the proper time, being always complete and up to date. Entries must always be made in order of date and time and no blanks left. The entries "on watch" and "off watch" must be followed by the operator's signature. All log entries must be completed by the end of the watch. If the number of pages in Section B of the log is insufficient to cover the period of currency of the log, the log should be continued in a separate book.

Inspection of the Log. The Master must inspect and sign each day's entries in the log, and where the Master is not the radiotelephone operator the latter should inspect and sign the log daily and submit the log to the Master for his signature, drawing his attention to any entries of importance or interest.

Disposal of the Log. In the case of foreign-going ships the radiotelephone log (with any continuation books) must be delivered, along with the Official Log Book, to the Superintendent of the Marine Office before whom the ship's crew is discharged. This delivery must be made within 48 hours after the ship's arrival at her final port of destination in the United Kingdom.

In the case of ships on half-yearly or other agreements, the radiotelephone log should be delivered to a Superintendent of a Marine Office within 21 days of the termination of the agreement. Before the radiotelephone log is so delivered care should be taken to remove and dispose of the carbon copies as directed above.

Logs of Ships Equipped with Radiocommunication Apparatus Not Required By International Regulations

29 (1) SHIP RADIOTELEGRAPH STATIONS

Under the Radio Regulations each such ship fitted with a radiotelegraph installation must carry a radio log (Diary of the Radio Service). The time of all entries made in the log must be in Coordinated Universal Time. Each sheet of the log must be numbered and dated, and when complete must be filed either aboard the ship or at established offices of the licensee. The log must be available for inspection by any officer authorised by the Department of Transport or the Department of Trade and Industry.

The following entries must be recorded in the log as they occur with the time of their occurrence.

(i) The operator's name and the times at which he goes on and off watch.
(ii) Time of arrival at and departure from ports, giving names of each.
(iii) All communications relating to distress traffic in full.
(iv) All urgency and safety communications.
(v) All communications exchanged between the ship station and coast stations or other ship stations.

(2) SHIP RADIOTELEPHONE STATIONS

Each such ship fitted with a radiotelephone installation should, where practicable, also carry a radio log. The time of entries made in the log should be in Coordinated Universal Time. Each sheet of the log should be numbered and dated and when complete should be filed on board the vessel. The log should be available for inspection by any officer authorised by the Department of Transport or the Department of Trade and Industry.

The following entries should be recorded in the log as they occur with the time of their occurrence.

(i) The operator's name and the times at which he goes on and off watch.
(ii) Time of arrival at and departure from ports, giving names of each.
(iii) A summary of all communications relating to distress, urgency and safety traffic.
(iv) A record of communications exchanged between the ship station and coast stations or other ship stations.
(v) A reference to important service incidents, such as failures of power supply or breakdowns of apparatus.
(vi) The position of the ship at least once per day if the ship's rules permit.

Battery Maintenance, Particulars to be Entered in Log

30 If secondary batteries form part of the radio installation of a ship station, not prescribed to be equipped with radiocommunication apparatus under the Merchant Shipping (Radio) Rules or the Merchant Shipping (Radio) (Fishing Vessels) Rules, they should be maintained in a fully-charged condition. A statement that this requirement has been fulfilled should be inserted in the radio log each day.

30a Format of Radio Logs

Form of radiotelegraph log-book

Radiotelegraph log

Part I

Name of Ship and Official Number	Maritime Mobile Service Identity and International Call Sign	Port of Registry	Gross Tonnage

Traffic Accounting Authority .....

Port at which and date when voyage commenced	Nature of the voyage or employment	Port at which and date when voyage terminated
Date ..... Port		Date ..... Port .....

Delivered to the Superintendent of the Marine Office at the Port of ..... on the ..... day of ..... 19 ..... together with Radiotelegraph Log Part II, serial numbers ..... to .....

Countersigned ..... Master

..... Superintendent ..... Address

Section A—Particulars of radio staff

Name	Home Address	Certificate Number and Class

Section B—Particulars of batteries on board

Battery Number	Number of Cells	Type	Date supplied	Voltage and Ampere-hour Capacity	Purpose for which used

Section C—Daily examination of batteries

Date	Battery Number	Voltage off Load	Voltage on Load	Remarks

Section D—Monthly report of batteries

Date	Battery Number and Cell Number	Results of load test or Specific Gravity as measured		Re-marks	Date	Battery Number and Cell Number	Results of load test or Specific Gravity as measured		Re-marks
		Before charge	After charge				Before charge	After charge	

Radiotelegraph log

Part II

Name of Ship and Official Number	Maritime Mobile Service Identity and International Call Sign	Port of Registry	Gross Tonnage

Serial No. ..... from ..... to .....

Traffic Accounting Authority .....

S.S. .....

M.V.

Diary of the radiotelegraph service

Date and Time (U.T.C.)	Station From	Station To	Full Details of Calls Signals and Distress Working	Frequency

Form of radiotelephone log-book

Radiotelephone log

Name of Ship and Official Number	Maritime Mobile Service Identity and International Call Sign	Port of Registry	Gross Tonnage

Traffic Accounting Authority .....

Period covered by Log—From ..... to .....

Delivered to the Superintendent of the Marine Office at the Port of ..... on the ..... day of ..... 19 .....

Countersigned ..... Master

..... Superintendent ..... Address

Section A—Particulars of radiotelephone operators

Name	Home Address	Certificate Number and Class

S.S. .....
M.V.

Section B—Diary of the radiotelephone service

Date and Time (U.T.C.)	Station From	Station To	Frequency Used	Record of Working

CHAPTER II

Radiotelegrams, Radiotelephone and Radiotelex Calls

PART 1—PREPARATION AND HANDING-IN OF RADIOTELEGRAMS

ACCEPTANCE OF RADIOTELEGRAMS

31 A radiotelegram is made up of the following parts arranged in order:—

(a) Prefix (if any)
(b) Preamble
(c) Service indications
(d) Address
(e) Text
(f) Signature

The preamble consists of the name of the ship or office of origin, the serial number of the radiotelegram, the number of words, the date and time of handing-in, any service instructions required such as information for the routeing of the telegram and the accounting authority's identification code at the end of the preamble line.

The ship station operator should, as standard operating procedure, give the accounting authority identification code (AAIC) at the end of the preamble line. If the AAIC is missing, the coast station operator should request QRC.

The date and time of handing-in consist of two groups of figures, the first indicating the day of the month (1 to 31) and the second the time of handing-in, in Coordinated Universal Time (U.T.C.), by means of a four figure group 0001 to 2400. For practical operating purposes, U.T.C. may be considered as equivalent to Greenwich Mean Time.

The service indication either identifies the radiotelegram as being within a particular class or denotes a special service requested by the sender, or in some cases, by the addressee. The address must contain all the particulars necessary to ensure delivery of the radiotelegram to the addressee without enquiries or requests for information. The text and signature may be expressed in plain language or in secret language. These languages may be used together in the same telegram except in the case

of radiotelegrams to those countries, shown in the table of telegraph rates in the British Telecom International's International Services Guide, which either do not admit secret language telegrams, or admit them only subject to certain restrictions.

The name and address of the sender should be written in the appropriate space on the form; these particulars must be supplied if the service sought by the sender requires it.

A duplicate of each radiotelegram delivered to a person on board a ship must be made out at the time of receipt. The duplicate form should show, in addition to the actual message and usual service particulars, the date and time of receipt, the time at which it was delivered to the addressee, and, if received through a coast station, the name of the coast station.

In the case of a radiotelegram handed-in on board ship the particulars to be transmitted in the preamble should be entered on the form by the accepting officer, together with the total amount charged, the date and time of transmission to the coast or ship station, the name of such station, and the signature of the transmitting officer.

A note should also be made of any other point likely to affect the accounts, for instance, failure to obtain an acknowledgment of receipt.

The forms of radiotelegrams accepted and the duplicates of those delivered on board ship must be disposed of as arranged between the Department of Trade and Industry and the Licensee or the Company operating the ship station; precautions must be taken to ensure secrecy.

Same-day hand delivery service for radiotelegrams is not available within the United Kingdom of Great Britain and Northern Ireland. Telegrams terminating in the United Kingdom will normally be delivered through the postal service.

CLASSES OF RADIOTELEGRAM NOT ADMITTED

32 The following classes of radiotelegram cannot be accepted:–

(a) Money order telegrams.
(b) Telegrams "to follow the addressee".
(c) Urgent radiotelegrams, except as regards transmission over the telegraph systems of administrations which accept such telegrams (see also Section **47**).
(d) Letter telegrams. (This prohibition does not apply to the Radiomaritime Letter (Ship Letter Telegram) service through coast stations other than in the United Kingdom.)
(e) Telegrams without text.
(f) Telegrams for multiple destinations.

Urgent radiotelegrams, ship letter telegrams and telegrams having telephonic addresses are not accepted by United Kingdom coast stations.

SENDER'S INSTRUCTIONS

33 A sender, on giving the necessary instructions and paying the appropriate fees may:–

(a) prepay a reply of any value to his radiotelegram;*
(b) cancel alter or amplify a radiotelegram already transmitted;
(c) have his radiotelegram delivered to a "Poste Restante" or "Telegraphe Restant";*
(d) have it delivered (in certain cases) by post or special means;
(e) secure priority for the radiotelegram over the telegraph systems of those administrations which accept "urgent" telegrams.

These special services are described in detail in Part 3.

PREFIXES

34 The prefixes used in radiotelegrams are shown in Appendix 2.

ROUTEING OF RADIOTELEGRAMS

35 The sender of a radiotelegram from a ship need not be asked to select a route for transmission beyond the coast station. If the telegraph tariff shows more than one rate of charge for the class of telegram to the destination concerned, the sender must choose a rate, and if he chooses a rate which applies only to one route, the name of that route should be entered in the service instructions. If he chooses a rate applicable to more than one route, the actual rate (e.g. "4/5 rate", "5 fr. 30 rate", or "5 fr. 30 tariff" as appropriate) must be entered in the service instructions and signalled forward.

If the sender uses the form of a particular Telegraph Company and a rate to the place in question by the Company's route is shown in the tariff, the form must be taken as indicating the sender's choice of the route concerned.

Any route indication should be signalled to the coast station in the service instructions of the radiotelegram. The abbreviated forms of route indications, shown in the tariff, should be used.

PLAIN LANGUAGE

36 Plain language is that which presents an intelligible meaning in one or more of the languages admitted for international telegraph correspondence, each word and each expression having the meaning normally assigned to it in the language to which it belongs. Radiotelegrams in plain

* Not available to addresses in the United Kingdom.

language may be expressed in any of the principal European languages; in addition, Latin and Esperanto may be admitted. They must be written in letters of the English alphabet.

By telegrams in plain language are meant those of which the text and signature are wholly in plain language.

The text and signature of telegrams originating in or destined for China may be expressed wholly by means of groups of four figures taken from the official telegraph dictionary of the Chinese Administration.

A telegram in plain language may also contain:

(a) numbers written in letters or figures;
(b) proper names or registered addresses;
(c) groups comprising letters, figures, signs or any combination of them, provided that they have no secret meaning. Such groups shall not contain accented letters;
(d) a single check group placed at the beginning of the text;
(e) groups of letters and figures from the International Code of Signals.

SECRET LANGUAGE

37 Radiotelegrams in secret language are those containing in their text or signature one or more words in secret language. Secret language comprises:

(a) groups of letters, figures, signs or any combination of letters, figures or signs having a secret meaning. Such groups shall not contain accented letters;
(b) real words belonging to one or more of the languages admitted for telegraph correspondence in plain language which are not used with the meaning normally assigned to them in the language to which they belong and consequently do not form intelligible phrases;
(c) other words or expressions not fulfilling the conditions laid down for plain language.

ADDRESS

38 (1) The following categories of address of a radiotelegram from a ship are permitted (where appropriate, supplemented by a postal code designation):

(a) full address;
(b) registered address;
(c) telephonic address;*

* Not available to addresses in the United Kingdom.

(d) telex address;
(e) "Poste Restante" or "Telegraphe Restant" address;
(f) post office box address.

If it is doubtful whether, without any addition, a message could be correctly routed without difficulty, a ship station not supplied with the Official List of Telegraph Offices may add to the name of the telegraph officer of destination:–

—the name of the territorial subdivision; or
—the country of destination; or
—both of the above.

The name of the telegraph office and the supplementary particulars are counted and charged for ten characters to the word. The coast station operator receiving the radiotelegram retains or deletes these particulars, or further amends the name of the office of destination as necessary for forwarding the radiotelegram to its proper destination.

Telegrams addressed to localities not served by international telecommunications circuits may be delivered to their address from a telegraph office of the country in which the place of destination is situated, either by post or, if these services exist, by express or by airmail.

The address of a telegram intended to be delivered to a "Poste Restante" or "Telegraphe Restant" must include the name of the addressee and, where possible, his christian name or initials; the use of initials alone, figures, christian name only, fictitious names or arbitrary signs of any kind, is not allowed in the address of such messages.

In the address of a radiotelegram for China. groups of four figures may be used to designate the name and abode of the addressee.

The address of radiotelegrams destined for ship stations must be as complete as possible and must include:—

(a) the name or designation of the addressee, with supplementary particulars if necessary;
(b) the name of the ship station followed, when necessary, by its call sign, the latter separated from the name of the station by a fraction bar, as shown in the List of Ship Stations;
(c) the name of the coast station through which the message is to be forwarded, as it appears in the List of Coast Stations.

If the ship does not appear in the List of Ship Stations, the sender should, if possible, indicate the nationality and route followed by the ship.

The name and call sign may be replaced, at the risk of the sender, by particulars of the passage made by such ship, indicated by the names of the ports of departure and of destination, or by any other equivalent indication.

When, because of duplication of names, the name of a ship station is fol-

lowed by its call sign, the latter is separated from the name of the station by a fraction bar:—

EXAMPLE: ORIANA/GVSN (not ORIANAGVSN).

PART 2—COUNTING OF WORDS IN RADIOTELEGRAMS

GENERAL PROVISIONS

Distinction between Actual and Chargeable Words

39 In the counting of words a distinction should be made between the number of actual words (each separate word or group of characters being counted as one actual word) and the number of chargeable words.

Chargeable Words

40 Everything that the sender asks to have transmitted shall be chargeable, with the exception of the route indication and the name of the code used for the wording of a secret language telegram, when this information is required by the origin or the destination country.

41 The following shall not be included in the number of actual and chargeable words or groups nor shall they be transmitted:–

(a) dashes used only to separate, on the sender's copy, different words or groups;
(b) other isolated signs unless the sender has specifically requested their transmission.

Service Indications

42 Service indications (if any) shall be included in the number of actual and chargeable words.

COUNTING THE NUMBER OF CHARGEABLE WORDS IN THE ADDRESS AND TEXT

Number of Characters

43 Words, groups of characters or expressions:–

(a) not exceeding 10 characters shall be counted as one chargeable word each;
(b) exceeding 10 characters shall be counted at the rate of one chargeable word for each ten characters or part thereof;
(c) when the number of chargeable words is the same as the number of actual words it shall be shown as a single number;

(d) when the number of chargeable words is different from the number of actual words, both shall be shown, separated by a fraction bar. The number of chargeable words shall be shown first.

44 *Examples of counting*

Words, etc.	No. of Characters	No. of Words Counted	
		In the Address	In the Text
RP2.50	6	1	1
Van de Brande		3	3
Vandebrande	11	2	2
Saint James Street		3	3
SaintJamesStreet	16	2	2
SN/KL384	8	1	1
52½p	6		1
11hr30	6		1
201200z	7		1
(25.35)	7		1
OC(HNCO)2CH2	12		2
(International)	15		2
*(Indications are underlined)			5
5/12/77	7		1
TF MurrayHill9 1234		4	
TFMurrayHill91234	17	2	
TF MurrayHill 91234 JohnJones NewYork		5	
TF Murray Hill 91234 John Jones NewYork		7	
TF873455 Schutz Hamburg		3	
TF 01 432 3288		4	
TF014323288	11	2	
Regulations	11		2

*Each bracket forms part of the word or group to which it is adjacent: Thus:–
(Indications has 12 characters, i.e. 2 words)
(Underlined has 11 characters, i.e. 2 words)

45 The text of a radiotelegram or ship letter telegram may consist of plain language, secret language or a combination of both.

For this reason combinations, alterations or the abbreviation of words in a radiotelegram contrary to the usage of the language are now permitted in the United Kingdom.

46 The accepting officer should where possible draw the attention of the sender to the possible loss of intelligibility to the recipient where excessive combinations of plain language words occur in a radiotelegram. Where the sender insists on sending such a radiotelegram the operator must transmit the message over the radiopath in groups of 10 characters.

PART 3—SPECIAL RADIOTELEGRAMS

SERVICE INDICATIONS

47 The sender must write on the form, immediately before the address, any instructions relating to the class of service (Urgent, SLT or Presse) or to prepayment of reply, etc. These instructions, which are called Supplementary Instructions, must be expressed in abbreviated form. Only the authorised abbreviations as given below are to be transmitted and, if necessary, the instructions written by the sender must be altered to agree with the relative authorised abbreviation.

Telegrams relating to the safety of life	= SVH =
Telegrams relative to the application of the United Nations Charter	= ETATPRIORITENATIONS
Government Telegrams	= ETATPRIORITE or ETAT
Radiotelegram to be given priority over the ordinary telegraph system	= Urgent = [3]
Radiomaritime Letter (Ship Letter Telegram)	= SLT = [1, 3]
Radiomaritime Ocean Letter	= OL =
Press radiotelegram	= Presse = [3]
Radiotelegram with reply paid	= RPx = [2]
Radiotelegram concerning persons protected in time of war by the Geneva Convention of 12 August 1949	= RCT =
Radiotelegram, De Luxe form	= LX =
Radiotelegram, De Luxe form of condolence	= LX DEUIL = [3]
Radiotelegram of which the date and time of transmission to the ship is to be notified by the coast station by telegraph	= PC =
Radiotelegram to be held for disposal to the ship by the coast station for a fixed number of days	= Jx = [4]
Radiotelegram for which delivery by Telex has been requested	= TLXx = [5]
Radiotelegram of which delivery by telephone is requested	= TFx = [3, 5]
Radiotelegram on Official Meteorological Service	= OBS =
Service advices	= A =
Paid service advices	= ST =
Reply to paid service advices	= RST =
Radio Telex Letter	= RTL =

[1] From ships only.
[2] Amount prepaid to be inserted in lieu of x, e.g., "18.90" (franc currency).
[3] Not available to addresses in the United Kingdom.
[4] Figure representing number of days to be inserted in lieu of x.
[5] Telephone or Telex number to be inserted in lieu of x, e.g. = TF Passy 5074 =.

These service indications (supplementary instructions) must be entered and signalled before the address. The double hyphens are not charged for, but they should be transmitted in the form of a break-sign. In meteorological radiotelegrams the service instruction =OBS= must be placed as a prefix and the service indication =OBS= before the address.

URGENT RADIOTELEGRAMS

48 Senders of radiotelegrams to some countries may secure priority in transmission over the ordinary telegraph system and in delivery by writing the service indication =URGENT= before the address and by paying double the amount of the ordinary telegraph charge in addition to the normal coast and ship station charges. (This service is not available to senders of radiotelegrams destined for places in the United Kingdom and Irish Republic.)

RADIO TELEX AND RADIOMARITIME LETTERS

Radio Telex Letters (RTL)

49 (1) Ships fitted with Radiotelex may send Radio Telex Letters (RTLs) via U.K. coast stations to postal addresses throughout the world. The service is available in the direction of ship to shore only.

The Radio Telex Letter provides about 50 words of text for each chargeable minute of radio telex time. There is a handling charge for each Radio Telex Letter transmitted.

Radio Telex Letters are sent from ships by radio telex to U.K. coast stations from where they are posted to their destination by 1st class post to U.K. addresses or by airmail to overseas addresses.

Coast stations cannot amend or correct incomplete addresses on Radio Telex Letters. They are posted to the addresses furnished by the senders who are responsible for the sufficiency of the addresses. The postal coded designation should be included in the address. Operators on ships should enquire of senders as to the accuracy and sufficiency of the addresses when accepting Radio Telex Letters adding a reminder that either inaccuracy or insufficiency of the address may entail delay or non-delivery of the Radio Telex Letter.

Radiomaritime Letters (Ship Letter Telegrams)

This service is not available via United Kingdom coast stations.

(2) A radiomaritime letter (Ship Letter Telegram) service, for non-urgent messages, is in operation through the coast stations of certain other countries on the following conditions:–

(a) The service is available in the direction from ship to shore only.
(b) Ship Letter Telegrams (SLT's) should be sent after full rate traffic.
(c) Messages are accepted only for destinations in the country in which the coast station is situated unless it is indicated in the List of Coast Stations that the station concerned will accept such traffic for onward transmission by post to destinations in other countries. Messages must bear an adequate postal address: abbreviated telegraphic addresses are inadmissible.
(d) Radio re-transmission of radiomaritime letters is not permitted.

Coast stations cannot amend or correct incomplete postal addresses of radiomaritime letters. These are posted to the addresses furnished by the senders who are responsible for the sufficiency of addresses as in the case of all other postal packets. Accepting operators should enquire of senders as to the accuracy and sufficiency of the addresses when accepting the messages, adding a reminder that either inaccuracy or insufficiency of address might entail considerable delay in delivery.

The postal code designation should be included in the address. Messages are forwarded from the coast station by ordinary post.

The service indication =SLT= must be inserted before the address, it is counted and charged for as one word. A special form is used at coast stations; to avoid delay in taking such traffic the indication SLT should be added to the call made to the coast station when communication is established.

The service indication for reply by ordinary radiotelegram RP* is also admitted with radiomaritime letters.

As a general rule, the text is subject to the regulations applicable to letter telegrams, namely:–

(a) The text may be expressed in plain language, secret language or a combination of both.
(b) Arrangements may be made for the senders of certain types of message, such as birthday and Christmas greetings, to include an indication of the desired date of delivery. The coast station will endeavour to arrange delivery accordingly.

The conditions of acceptance and the charge are shown in the List of Coast Stations.

PRESS RADIOTELEGRAMS

50 In the direction ship to shore, press radiotelegrams accepted by the coast stations of certain countries* conform to the following conditions:–

* Not available to addresses in the United Kingdom.

(a) The text must consist of information and news for publication in newspapers and other periodical publications or for radio or television broadcasting and comments relative to the publication or broadcasting of such matter provided that such comments are placed between brackets at the beginning or at the end of the text. The number of words (excluding the brackets) thus added to the text must not exceed 10% of the total number of chargeable words in the text and must not exceed twenty. The comments and the brackets are charged at the same rate as the text.

(b) They bear, at the beginning of the address, the service indication =PRESSE= written by the sender.

(c) They must be written in plain language in one of the languages admitted for international telegraph correspondence in plain language, chosen from among the following languages:

(i) the French language;
(ii) the language of the newspaper, periodical publication or news agency bulletin to which the radiotelegram is addressed or the language in which the radio or television broadcast is carried out;
(iii) the national language or languages of the country of the ship of origin or the country of destination, designated by the administrations concerned;
(iv) one or more additional languages which may be designated by the administration of origin or the administration of destination as being used in their territories.

These languages may be used for quotations together with the language in which the radiotelegram is written.

(d) Subject to the exception provided in (a) above, they must not contain any passage, announcement or communication having the character of private correspondence, nor any advertisement or communication for insertion in any publication, for radio broadcasting or for televising whether or not a charge is made.

(e) They may be addressed only to newspapers or periodical publications, to news agencies or bureaux, to press services of diplomatic missions or to authorised radio sound or television broadcasting companies, organisations or stations and not to the name of a person connected in any capacity whatever with any of these entities.

(f) Administrations or recognised private operating agencies may require that press telegrams shall be accepted only from authorised representatives of newspapers, periodical publications, news agencies or bureaux, or press services of diplomatic missions, authorised radio sound or television broadcasting companies, organisations or stations. Administrations or recognised private operating agencies may require the sender of a press telegram to be registered as the accredited correspondent of the

addressee and may issue cards of identification without which the radiotelegram need not be accorded press rates.

Stock exchange and market quotations, results of sporting events and meteorological observations and forecasts, with or without explanatory text, are admitted in press telegrams.

The only special service allowed is: URGENT, if this service is admitted by the country of origin or destination. The corresponding service indication URGENT* is charged for at the reduced rate.

PREPAID REPLIES*

51 The sender of a radiotelegram may prepay a reply up to any value by writing the service indication =RP= followed by the amount prepaid, expressed in British decimal currency in pounds and new pence (e.g. =RP £1.47½=) if the radiotelegram is exchanged between two United Kingdom ships.

In other cases the amount prepaid should be shown in gold franc currency (e.g =RP3.05=).

In the case of a radiotelegram from a ship to a telegraph office on land to which a reply has been prepaid, the reply voucher issued to the addressee by the delivery office will be accepted, during a period of three months following the date of issue, at any office of the country of destination in payment or part payment of a telegram or radiotelegram.

When a radiotelegram to which a reply has been prepaid is received on board ship, a reply voucher, showing the date of issue, must be completed and delivered with the radiotelegram. The reply voucher issued on board gives the right to send, up to the limit of its value and within a period of three months, a radiotelegram to any address whatever from the ship station which has issued the voucher.

A reply must not be accepted without payment unless a prepaid reply voucher is tendered in payment or part payment. If the reply costs more than the value of the voucher tendered, the sender of the reply must pay the balance.

DELIVERY

52 Telegrams may be delivered either to the addressee, to an adult member of his family, to any person in his service, to his lodgers or guests, or to the receptionist at the hotel or the house, unless the addressee has designated in writing a special representative.

* Not available to addresses in the United Kingdom.

RADIOTELEGRAMS TO BE DELIVERED BY SPECIAL MEANS

53 (1) Telegrams addressed to localities not served by international telecommunication circuits may be delivered to their address from a telegraph office of the country in which the place of destination is situated, either by post or, if these services exist, by express or by airmail. Nevertheless, delivery may be effected by such means from a telegraph office of another country when the destination country is not connected to the international telecommunication system or when the destination cannot be reached by the telecommunication system of that country.

(2) If the addressee is connected by telephone with the office of destination a sender may give instructions for his radiotelegram to be delivered by telephone.* In this case he must write before the address the service indication =TF . . . =, completed by the telephone number of the addressee, e.g.,

= TF 873455 = SCHUTZ HAMBURG = (Counts four words)
= TF873455 = SCHUTZ HAMBURG = (Counts three words)
= TF PASSAY 5074 = PAULI PARIS = (Counts five words)
= TFPASSAY 5074 = PAULI PARIS = (Counts four words)
= TF MURRAY HILL 91234 = JOHN JONES NEWYORK
(Counts seven words)
= TFMURRAYHILL91234 = JOHN JONES NEWYORK
(Counts five words)

Such radiotelegrams are, whenever possible, transmitted to the addressee by telephone unless this is contrary to the regulations of the administration of the country of destination or the addressee has expressly requested that his telegram should not be delivered to him by telephone.

(3) Similarly, if the addressee is connected to the office of destination by Telex, the sender may give instructions for his radiotelegram to be delivered by Telex. In this case he must write before the address the service indication = TLX . . . = completed by the Telex number of the addressee, e.g. TLX20074 = Pauli Paris (counts three words).

RADIOTELEGRAMS TO BE CALLED FOR*

54 The address of telegrams intended to be delivered to a POSTE RESTANTE or TELEGRAPHE RESTANT must be composed of:–

(a) The name of the addressee including, where possible, his given (christian) name or initials;
(b) The words POSTE RESTANTE, TELEGRAPHE RESTANT (or the equivalent in a language of the destination country); and
(c) The name of the telegraph office of destination.

* Not available to addresses in the United Kingdom.

PERIOD OF RETENTION OF RADIOTELEGRAMS AT COAST STATIONS

55 When it has not been possible for a coast station to transmit a radiotelegram to a ship station by the morning of the fifth day (not including the day of handing-in), the coast station treats the radiotelegram as undelivered and notifies the sender accordingly.

The sender of a radiotelegram destined for a ship station may specify the number of days during which the coast station may hold the radiotelegram. In that case, the service indication Jx (x days), specifying the number of days (ten at the most) exclusive of the day of handing-in of the radiotelegram, shall be shown before the address. When it has not been possible for a coast station to transmit a radiotelegram bearing the service indication Jx within the prescribed period, the coast station treats the radiotelegram as undelivered and informs the sender accordingly.

The periods mentioned above shall be ignored if the coast station is sure that the ship station will soon come within its service area.

On the other hand, the lapse of those periods is not awaited when the coast station is sure that the ship station, being in course of a voyage, either has definitely left its service area or will not enter it.

If there is reason to believe that no other coast station of the Administration to which it is subject is or will be in touch with it, and the coast station cancels the radiotelegram as far as concerns the section between itself and the ship station and informs the office of origin, which notifies the sender.

In the contrary case, the coast station forwards the radiotelegram to the coast station believed to be in touch with the ship station, provided, however, that no additional charge results therefrom.

The coast station that carries out the redirection alters the address of the radiotelegram by placing after the name of the ship station that of the new coast station charged with the transmission and adding at the end of the preamble line the service instruction REDIRECTED FROM ... RADIO, which must be transmitted throughout the course of the radiotelegram.

If, within the limits of the requisite period of retention of radiotelegrams, the coast station that has redirected a radiotelegram to another coast station is subsequently in a position to transmit the radiotelegram direct to the destination ship station, it does so by inserting the service instruction AMPLIATION at the end of the preamble line.

It shall then transmit to the coast station to which the radiotelegram had been redirected a service advice informing the latter of the transmission of the said radiotelegram.

When a radiotelegram cannot be transmitted to a ship station owing to the arrival of the latter in a port near the coast station the latter station

may, according to circumstances, forward the radiotelegram to the ship station by other means of communication, at the same time informing the office of origin by service advice of the delivery.

In this case, the coast station charge is retained by the Administration* to which the coast station is subject and the ship station charge is refunded to the sender by the origin Administration.*

DE-LUXE (GREETINGS) RADIOTELEGRAMS

56 De-Luxe radiotelegrams may be sent to addresses in certain countries, but not to telephonic addresses.

The charge for De-Luxe radiotelegrams is the normal radiotelegram charge to the country concerned. The service indication =LX= should be inserted before the address and charged for as one word.

For telegrams sent on an occasion of mourning, the service indication LXDEUIL should be used.*

OCEAN LETTERS

57 An Ocean Letter is a message sent direct from one ship to another ship passing in any direction for delivery by post from a port of call of the receiving ship.

The service indication for an Ocean Letter is =OL=. Ocean Letters must be written in plain language; any language declared as plain language under the International Telegraph Regulations is permissible.

Such messages must bear a full postal address. Registered telegraph addresses are not permitted.

Every word in the address, text and signature is counted for the purpose of charge.

Current rates of charge are issued by the controlling private enterprises authorised to use this service.

Restrictions

Ocean Letters for delivery in the United Kingdom and Irish Republic from crews of ships on their personal affairs are permitted from United Kingdom ships whose controlling companies have been authorised by the Department of Trade and Industry to use this service, subject to the condition that such traffic must not be handled within 250 miles of a United Kingdom or Irish Republic coast station. Masters' service messages on ships' business are not admitted.

* Not available to addresses in the United Kingdom.

Ocean Letters from passengers for destinations abroad are permitted for countries which admit such services, subject to the conditions that such traffic must not be exchanged within 250 miles of a United Kingdom or Irish Republic coast station.

Ocean Letters from passengers for delivery in the United Kingdom and Irish Republic are prohibited no matter where posted, either at home or abroad; they may not be sent to foreign ships for posting in this or any other country for delivery in the United Kingdom or Irish Republic.

The retransmission of Ocean Letters is prohibited.

RETRANSMISSION OF RADIOTELEGRAMS

Routine Retransmission

58 (1) When a coast station cannot reach the ship station for which a radiotelegram is destined, the coast station may, in order to forward the radiotelegram to its destination, have recourse to the help of another ship station provided that the latter consents. The radiotelegram is then transmitted to this other ship station. The help of the latter is given free of charge.

The same provision is also applicable to traffic from ship stations to coast stations when necessary.

The station assisting in the free retransmission must enter the service abbreviation QSP (and the name or call sign of the ship station) at the end of the preamble of the radiotelegram.

In order that a radiotelegram thus forwarded may be considered as having reached its destination, the station which has made use of this indirect route must have obtained the regular acknowledgment of receipt, either direct or by an indirect route, from the ship station for which the radiotelegram was destined or from the coast station to which it was to be forwarded, as the case may be.

Retransmission by a Coast Station

(2) When a single coast station is used as an intermediary between ship stations, two coast station charges are collected. If the coast station charge applicable to traffic with the ship station of origin is different from that applicable to traffic with the ship station of destination, the higher of these two charges is collected. In addition, a land telegraph charge may be collected equal to that applicable to transmission over the telecommunication network.

When, at the request of the sender, two coast stations are used as intermediaries between two ship stations, the coast station charge of each station is collected and also the telegraph charge for the section between the two stations.

CORRECTION OF, OR ENQUIRY CONCERNING, RADIOTELEGRAMS

59 (1) The sender of a radiotelegram or his authorised representative may have instructions given respecting it by telegraph. Any message exchanged between two stations at the request of the sender must be in the form of a paid service advice. The paid service advice conveying the request is charged for at the ordinary rate and, if a reply by telegraph is required, the service indication RPx* must be used and a charge for a reply of seven words must be collected.

Any request for the correction of a radiotelegram should be sent, so far as practicable, to the coast station to which the message was transmitted.

Corrections should be drawn up as follows:

(a) Correction of Text

Form to be used when the sender of a radiotelegram from a ship discovers that he has made an error in the original radiotelegram:

NONSUCH 6 13 16 1015
ST DEWSBURY
2/15th SMITH 66 YORKSTREET SIGN FRED REPLACE THIRD 20 by 2000

(chargeable as thirteen words).

In this example "6" denotes the local serial number of the ST advice, "13" the number of words, "16" the day of the month on which the service is sent, "1015" the time of handing-in, "2" the serial number of the original radiotelegram, "15th" its date, "Smith" the name of the addressee, "66 Yorkstreet" the address, "Fred" the signature, if any, and "third" the position in the text of the original message of the word which the sender desires to correct, and similarly in the other examples which follow.

(b) Correction of Address

Form to be used when the sender wishes to correct or complete the address of an undelivered radiotelegram from a ship:

NONSUCH 7 11 16 1015 =
ST DEWSBURY =
2/15th SMITH 66 YORKSTREET SIGN FRED DELIVER 36 YORKSTREET

(chargeable as eleven words.)

(2) The addressee of a radiotelegram may, with the object of rectifying errors, have it repeated in whole or in part. Repetition is obtained from the

* Not available to addresses in the United Kingdom.

office of origin whenever practicable; when this cannot be done, repetition is given by the coast station from its records. Messages exchanged between two stations at the request of the addressee are regarded as ordinary service advices. No charge is made for this service through United Kingdom coast stations.

Similar requests made through the coast stations of other countries may be subject to a charge.

CANCELLATION OF RADIOTELEGRAMS

60 A radiotelegram may be cancelled by the sender after it has been accepted for transmission.

If the transmission of the radiotelegram to the next office or station has been completed, the sender may request its cancellation only by means of a paid service advice (ST) addressed to the office of destination. This paid service advice is charged at the ordinary rate for the address, text and the indication* =RPx= and, in addition, there is a charge as for seven words at the ordinary rate for the reply.

Example

NONSUCH 8 10 16 1015 =
ST RPx DEWSBURY =
2/15th SMITH 66 YORKSTREET SIGN FRED CANCEL

(Total charge as for seventeen words, i.e. ten words for the service advice and seven words for the prepaid reply.)

If the radiotelegram has been delivered the addressee will be informed of the cancellation unless instructions to the contrary have been included in the paid service advice.

Example of Reply

DEWSBURY 4 5 16 1230 =
RST NONSUCH =
8/16th SMITH CANCELLED

or

DEWSBURY 4 8 16 1230 =
RST NONSUCH =
8/16th SMITH ALREADY DELIVERED
ADDRESSEE INFORMED

(8 is the serial number of the original paid service advice.)

* Not available to addresses in the United Kingdom.

UNDELIVERED RADIOTELEGRAMS

61 When, for any reason, a radiotelegram originating in a ship station and destined for a place on land cannot be delivered to the addressee, an advice of non-delivery is addressed to the coast station which received the radiotelegram. After checking the address, the coast station forwards the advice, when possible, to the ship station, if necessary, by way of another coast station of the same country or of a neighbouring country, as far as existing conditions or special agreements permit.

On receiving a notice of non-delivery from a coast station, the ship station operator should compare the address quoted in the notice with that on the form handed in by the sender and, if possible, correct any errors by means of a service advice transmitted by way of the original coast station or another coast station of the same or a neighbouring country, in so far as existing conditions or special agreements permit. Should no error be disclosed the sender is informed of the non-delivery of his message and the reason. A sender desiring to alter or add to the address of a radiotelegram can only do so by means of a paid service advice (see Section **59**).

When a radiotelegram received at a ship station cannot be delivered, that station informs the office or ship station of origin by a service advice. In the case of a radiotelegram originating on land, this service advice is sent, whenever possible, to the coast station through which the radiotelegram passed or, if necessary, to another coast station of the same country or of a neighbouring country, so far as existing conditions or special agreements permit. In such cases the name or call sign of the station from which the radiotelegram was received must be quoted.

Difficulty is occasionally experienced in tracing relative radiotelegram forms owing to inadequate particulars being furnished when non-delivery advices are sent through United Kingdom coast stations.

Ships' operators are reminded that:–

(a) Non-delivery advices, whether passed direct to coast stations or through intermediate ships, should contain in the text the full particulars given in Section **62**;
(b) A separate service message should be sent for each undelivered radiotelegram.

The date given in the particulars of the non-delivery advice should always be that on which the radiotelegram was handed in and not that on which it was received from the coast station or intermediate ship.

SERVICE ADVICES

62 The preamble of a service advice consists of the name of the ship, the serial number, the number of words and the date and time of handing-in.

The address includes the relevant service indication and the name of the office of destination.

In the text of a service advice exchanged between a ship and a coast station the radiotelegram to which it relates is designated by (i) its serial number (local or international) and date separated by a fraction bar; (ii) the service indications (if any); (iii) the name of the addressee; (iv) the address (excluding the office of destination); (v) the signature (if any). Then follows the communication.

SPECIMEN SERVICE ADVICES

63 (1) Ship station advises office of origin of non-delivery of radiotelegram:–

15 NONSUCH 11 23 1100 =
A WREXHAM
14/22nd WILLIAMS .... (insert name of ship) sign FRED
ADDRESSEE NOT ON BOARD

Here "Nonsuch" is the name of the ship; "15" the local serial number of the service advice; "11" the number of words; "23" the day of the month on which the service advice is sent; "1100" the time of handing-in; "A" the service indication; "Wrexham" the office for which the service advice is intended; "14" the local serial number of the original radiotelegram; "22nd" the day of the month on which the original radiotelegram was handed in; "Williams" the name of the addressee; "Fred" the signature; "addressee not on board" the reason for non-delivery.

Other common reasons for non-delivery on board ship are usually indicated as follows:

addressee no longer on board; addressee unknown; refused.

(See (4) below for the procedure of the coast station in forwarding this service advice to its destination.)

(2) Coast station, having been advised by office of destination of non-delivery of radiotelegram from a ship, transmits this advice to ship station:

WREXHAM 29 8 11 1230 =
A NONSUCH =
15/10th JONES 58 SOUTH-ST
ADDRESSEE UNKNOWN.

Other common reasons for non-delivery are usually indicated as follows:

addressee left; addressee deceased; addressee not arrived; address not registered; address no longer registered; refused.

(3) Ship station, having received advice of non-delivery, informs the office of origin of the service advice of a discrepancy in the address:

NONSUCH 5 10 11 1630 =
A WREXHAM
15/10th JONES 58 SOUTH-ST DELIVER TO 38 SOUTH-ST

This indicates that there has been an error in the number. If the error had been, e.g., the substitution of Street for Place, the text of the foregoing service advice would have read: "15/10th JONES 58 SOUTH-ST deliver to 58 SOUTH PLACE".

(4) A coast station, in forwarding to the office of destination a service advice received from a ship, should translate it into the form usual in inland service messages, the original radiotelegram being designated not by its number in the radiotelegraphic transmission but by the time of handing-in at the office of origin in the inland telegraph system. Similarly, the ordinary inland form of service message should be used by the coast station in informing the office of origin that the ship for which a radiotelegram was intended has passed out of range, or has not signalled its presence. The phrases to be used in these cases are "ship out of range" and "ship not signalled" respectively.

If necessary, the service message forwarded by the coast station will be translated into French at a later stage.

FRENCH EQUIVALENTS OF COMMON EXPRESSIONS

64 ·A United Kingdom ship or coast station, in sending a service message to a station which does not habitually communicate in English, should use French terms in the text so far as possible. French equivalents of some of the commonest words and phrases are given below:

ENGLISH	FRENCH
Addressee	Destinataire
Unknown	Inconnu
Left	Parti
Not on board	Pas à bord
No longer on board	Plus à bord
Deceased	Décédé
Address	Adresse
Not registered	Pas enregistrée
No longer registered	Plus enregistrée
Refused	Refusé
For	Pour
Repeat	Répétez
Already	Déjà

ENGLISH	FRENCH
Delivered	Remis
Deliver	Remettez
Cancel	Annulez
Replace	Remplacez
Read	Lisez
Reply paid	Résponse payée
Radiotelegram to be repeated	Collationnement
Posted as a registered letter	Poste recommandée
Charge for porterage prepaid	Exprès payé
Radiotelegram to be called for at a Telegraph Office	Telegraphe Restant
Radiotelegram to be called for at a Post Office	Poste Restante
Radiotelegram to be given priority (as "Urgent")	Urgent

PART 4—CHARGES, REIMBURSEMENTS AND ACCOUNTING FOR RADIOTELEGRAMS

COMPONENTS OF CHARGES

65 (1) The charge for a radiotelegram must in every case be prepaid by the sender. The same rate of charge applies whether the radiotelegram is written in plain language, secret language, or a combination of both.

(2) For a radiotelegram exchanged between a ship and a telegraph office on land the charge comprises:

(a) the ship station charge*;
(b) the coast station charge;
(c) the land-line charge;
(d) the special charges, if any, mentioned in Part 3.

The coast station charge, the ship station charge and the land-line charge are fixed on the basis of a word rate; for each radiotelegram, however, a minimum charge for seven words is made.†

(3) The charge for a radiotelegram exchanged between two ships consists of:

If sent via coast stations

(a) the ship charge of the ship of origin;
(b) two coast station charges;

* Ship station charges shall be abolished for traffic exchanged after 2359 hours U.T.C. 31 December 1987.
† Current national and international discussions could lead to alternative systems of charging.

(c) the ship station charge of the ship of destination;
(d) the land-line charge, if applicable;
(e) the special charges, if any, mentioned in Part 3.

When a single coast station is employed as an intermediary between ship stations, and the coast station charge applicable to traffic with the ship station of origin is different from that applicable to traffic with the ship station of destination, the higher of these two charges is collected.

If sent direct (i.e. not via a coast station)

The charges at (a), (c) and (e) apply.

COAST AND SHIP STATION CHARGES

66 The coast station charge may be ascertained from the List of Coast Stations; the ship station charge from the List of Ship Stations.

CHARGES FOR PRESS RADIOTELEGRAMS*

67 The charges for press radiotelegrams are as follows:

(a) Ordinary press radiotelegrams

Ship station charge: one-half of the ship station charge for an ordinary radiotelegram;
Coast station charge: one-half of the coast station charge for an ordinary radiotelegram;
Land-line charge:
(i) one-half of the telegraph charge for an ordinary radiotelegram where press telegrams are exchanged between two countries within the same continental system and Administrations within that system have agreed to this proportion;
(ii) one-third of the telegraph charge for an ordinary radiotelegram in other cases.

(b) Urgent press radiotelegrams

Ship station charge: one-half of the ship station charge for an ordinary radiotelegram;
Coast station charge: one-half of the coast station charge for an ordinary radiotelegram;
Land-line charge: the same as the telegraph charge for an ordinary radiotelegram over the same route.

* Not available to addresses in the United Kingdom.

(c) The minimum number of chargeable words

The minimum number of chargeable words for press radiotelegrams is fourteen.

CHARGES FOR ORDINARY TELEGRAPH TRANSMISSION

68 Ship stations are required to carry the telegraph tariffs of the countries for which they most frequently accept radiotelegrams (see Sect. **22**). The List of Coast Stations includes for certain countries details of the inland rates and rates of transmission to adjacent countries.

Where the ship's operator has not the means of calculating the charge for a radiotelegram, he may apply to the coast station for information, the enquiry and reply being recorded on service message forms.

New or modified charges shall not come into effect for international traffic for countries other than that which establishes the charges until the first day of the month following the expiry of the following periods, counted from the day after the dispatch of the first notification by the ITU General Secretariat:

(a) for traffic from ship to shore, 1 month and 15 days;
(b) for traffic from shore to ship, 15 days, except that for changes to bring charges into line with those on competing routes the period shall be 10 days.

RECEIPTS

69 A receipt for the charges prepaid may be given on demand, free of charge.

ACCOUNTS

70 The method of accounting for charges is arranged between the Department of Trade and Industry and the Licensee or the private enterprise operating each coast or ship station licensed by him.

CONDITIONS UNDER WHICH REIMBURSEMENT MAY BE CLAIMED

71 The charges for radiotelegrams incorrectly transmitted, unduly delayed, or not delivered to the addressee, will be refunded, wholly or in part, under certain conditions. The following are the principal cases in which reimbursement may be claimed:

(a) When a radiotelegram has failed to reach its destination through some error on the part of the telegraph or radiotelegraph service, the whole of the amount paid will be refunded.

(b) When a radiotelegram is delayed through the fault of the telegraph service, the whole of the charge will be refunded if delivery to the addressee is not made until after a period of:

(i) six hours in the case of a telegram exchanged between two countries within the same continental system which are connected by a direct telegraph circuit;
(ii) twelve hours in the case of a telegram exchanged between two countries within the same continental system but which are not connected by a direct telegraph circuit;
(iii) twelve hours in the case of a telegram exchanged between two countries which are not within the same continental system but which are connected by a direct telegraph circuit;
(iv) twenty-four hours in all other cases.

The period during which offices are closed, when that is the cause of delay, the night period, the time taken for transmission over the radio circuits, and also the period of retention at a coast station, or on board a ship station, shall not be reckoned in the periods indicated above.

Where, however, the delay in any case is the result of an insufficient address or indistinct writing by the sender the telegraph service shall be deemed not to be at fault and no part of the charge will be refunded.

(c) The charge for a word or words omitted in transmission shall be refunded unless the total charge is refunded by application of (d) below or the error has been remedied by means of a service advice.

(d) Unless the error has been remedied by means of a service advice, the total charge for a radiotelegram shall be refunded when errors have been made in transmission or by omission of words and the origin Administration is satisfied that, in consequence, the meaning of a plain language telegram has been altered or rendered unintelligible.

(e) When a reply paid voucher has not been used the amount paid for the reply will be refunded to the sender provided that the addressee returns the reply paid form to the Telegraph Administration of the country in which it was issued, or to the Company controlling the radio installation on the ship on which it was issued, as the case may be, within a period of four months following the date of issue of the voucher, and accompanied by a request that the money be refunded to the sender.

(f) If the reply is not of the value of the amount prepaid, the balance of the charges will be refunded to the sender, on application within four months of the date of issue of the reply form provided that this sum is not less than a prescribed minimum.

(g) When the original radiotelegram has not been delivered, the amount deposited for the reply will be refunded to the sender.

(h) When a special paid service has not been rendered because of an error of service, the charges collected in respect thereof will be refunded.

(i) When a radiotelegram has been cancelled at the station or office of origin before transmission to the next station or office has begun the charge will be refunded. If the radiotelegram is cancelled after its transmission to the next station or office but before it has reached the ship or office of destination, any balance of charges will be refunded.

APPLICATIONS FOR REIMBURSEMENT TO BE MADE IN WRITING

72 The information in Section **71** is given in order that operators may be in a position to advise senders of radiotelegrams who make enquiries or complaints. It is not intended that an operator should himself refund the amount prepaid on a radiotelegram, or any part of it, except in cases where the operator on the ship of origin has not transmitted the radiotelegram.

When a radiotelegram cannot be transmitted by a coast station to the ship of destination, the amount paid by the sender in respect of ship charges will be refunded without application. In all other cases applicants for the return of money should be told to apply in writing to the Company responsible for the ship station. They should also be informed that claims for reimbursement should always be accompanied by documentary evidence, viz:

(a) in the case of non-delivery or delay, by a written statement from the office of destination or the addressee that the radiotelegram has not been received, or has been delayed.
(b) in the case of error in a plain language radiotelegram, or in the case of the omission of one or more words, by the actual message form delivered to the addressee.

No claim for reimbursement will be entertained unless it is made within four months of the date of the original radiotelegram.

REIMBURSEMENT FOR CONSEQUENTIAL AND CORRECTING TELEGRAMS

73 The amount paid in respect of radiotelegrams or ordinary telegrams sent in consequence of the non-delivery, delay, or incorrect transmission of a radiotelegram will not normally be returned.

PART 5—RADIOTELEPHONE CALLS

GENERAL

74 Radiotelephone services are available between suitably equipped ships and telephone subscribers on shore via coast radio stations. Radio-

telephone calls may be extended over the international telephone network to certain countries other than that in which the coast station is situated.

Particulars of the services available are published in the List of Coast Stations.

The instructions which follow are those which apply in the international telephone service. Particular services may be subject to special restrictions or conditions applied by individual Administrations.

The following supplementary services are available if admitted by the Administration of the country concerned:

(a) personal calls;
(b) collect (transferred charge) calls.

These supplementary services are available in the direction ship station to land station. (All radiotelephone calls TO ship stations are treated as personal calls without extra charge.)

The object of a personal call is to endeavour to guarantee to the caller that he will be put through only if it is possible to establish communication with a person specified by name or in some other way (e.g. with a person speaking a specified language), with an acceptable substitute, or with a particular extension.

A collect (transferred charge) call is a call for which the caller, when booking the call, specifies that he wishes the charge to be paid by the person called. Such calls are admitted only if accepted by the Administration of the country concerned and permitted by the operating agency of the ship station.

PRIORITY OF RADIOTELEPHONE CALLS

75 Radiotelephone calls are subject to the priority of communications indicated in Section **20**.

BOOKING OF CALLS

76 Normally calls are booked by designating the exchange name, or routeing code for the incoming network, and the telephone number. However, booking may include only the name and address of the called person or such information as may be required to identify him.

PERIOD OF VALIDITY OF BOOKINGS

77 The call booking remains valid until it has been satisfied or refused by the person called, or cancelled by the caller.

CANCELLATION OF CALLS

78 A caller may cancel his call booking without charge:

(a) if he has not yet been advised that the call is about to be set up;
(b) even if, after having been advised that the call is about to be set up, he is informed that the called number is engaged or cannot be reached;
(c) if, in the case of a personal call, the called party refuses to accept the call or is not available;
(d) if, in the case of a collect call, the called party refuses to pay the charge.

PART 6—CHARGES FOR RADIOTELEPHONE CALLS

GENERAL

79 (1) The charge for a radiotelephone call originating in, or intended for, a ship station, comprises:

(a) the ship station charge;*
(b) the coast station charge;
(c) the land-line charge; and
(d) the charge for any supplementary service.

If no uniform charges apply in respect of the coast stations of a country, different coast station charges for radiotelephone calls are fixed for the medium frequency, high frequency and the very high frequency bands.

Calls of a duration of three minutes or less are charged as for three minutes. In the case of calls whose duration exceeds three minutes, a charge per minute is made for the period in excess of three minutes, any fraction of a minute being charged as for one minute. The charge per minute is one-third of the charge for three minutes.

When a single coast station is used as an intermediary for a radiotelephone call between two ship stations, two coast station charges are collected. If the coast station charge applicable to traffic with the ship station booking the radiotelephone call is different from that applicable to traffic with the ship station called, the higher of these two charges is collected.

When, at the request of the person booking the radiotelephone call, two coast stations are used as intermediaries for a radiotelephone call between two ship stations, the appropriate coast station charge of each station is collected and also the land-line charge between the two coast stations.

* Ship station charges shall be abolished for traffic exchanged after 2359 hours U.T.C. 31 December 1987.

When handled through a coast station the chargeable duration of a radiotelephone call will be fixed at the end of the call by the coast station; if two coast stations are participating in the handling of the call, the duration of the call is fixed by that coast station which has accepted the call from the ship.

The chargeable duration of a radiotelephone call between two ship stations in direct communication with each other will be fixed by the ship station in which the call originates.

When, through any fault of the service, the booking of a radiotelephone call is not followed by the calling and called stations being placed in communication, no charge shall be payable.

When, through any fault of the service, the correspondents experience difficulty in the course of the radiotelephone conversation, the chargeable duration of the call shall be reduced to the total time during which speech conditions have been satisfactory.

Supplementary charges

(2) Unless special arrangements between the Administrations or the recognised private operating agencies concerned are in effect, supplementary charges for personal calls (from ship stations to land) and collect calls, if admitted, shall be applied.

In the United Kingdom and in certain European countries the charge for a personal call and a collect call shall be the same as that for an ordinary call of the same duration, with the addition of a supplementary charge equal to two-thirds of the charge for a radiotelephone call of three minutes' duration, between the two stations concerned.

When the booking of a radiotelephone call which is liable to the payment of a supplementary charge (for example, a collect call) is accompanied by a booking of a personal call only one supplementary charge shall be collected.

TELEPHONE CREDIT CARDS

80 Telephone credit cards may be used when approved by the Administration concerned and the operating agency responsible for the ship station. These credit cards enable telephone subscribers, or their accredited agents, to make radiotelephone calls without prepayment.

The code number on the credit card is in a special sequence and the ship station should inform the coast station of this number when booking the call. The coast station will say if the call can be accepted on the card number quoted.

PART 7—RADIOTELEX CALLS

GENERAL

80a A radiotelex service is available between suitably equipped ships and telex subscribers on shore via coast radio stations provided with radiotelex facilities.

Radiotelex calls may be extended over the international telex network to other countries.

Radiotelegrams can be exchanged between ship and radio stations using the radiotelex facility with termination at the radio station.

LONG RANGE

80b Portishead Radio operates a comprehensive long range radiotelex service, with automatic through-dialling in the from-ship direction.

A fully automatic system in both to-ship and from-ship directions will be operational towards the end of 1985.

Further details may be obtained from Portishead Radio, BTI Radio Station, Highbridge, Somerset TA9 3JY.

MEDIUM RANGE

80c Towards the end of 1985 it is planned to automate the MF radiotelex service through terminals located at Portishead Radio where manual assistance will also be available. The selective call number when using this service will be as for Portishead Radio, i.e. 3220, regardless of the location of the transmitter/receiver equipment. Further information can be obtained from BTI Coast Station Operations, 43 Bartholomew Close, London EC1A 7HP.

CHAPTER III

Selective Calling in the Maritime Mobile Service*

GENERAL

81 Selective calling is designed for automatic station calling and distress alerting or the transmission of information for the organisation of traffic.

Selective calling may be carried out using a sequential single-frequency code (SSFC) system or a digital selective calling system in the shore-to-ship, ship-to-shore and ship-to-ship directions.

To meet the immediate needs of the maritime mobile service the characteristics of the sequential single-frequency code (SSFC) system have been adopted internationally.

In the SSFC system the selective call identification of a coast station is a group of four digits. For ship stations the selective call number or signal is a group of five digits.

METHOD OF CALLING

82 The call consists of:

—the selective call number or identification number or signal of the station called, followed by

—the selective call number or identification number or signal of the station calling.

However, in the case of a coast station calling on VHF the number of the channel to be used for the reply and for traffic may replace the identification number or signal of the coast station.

The call shall be transmitted twice. Particulars are published in the List of Coast Stations and Volume 1 of the Admiralty List of Radio Signals.

REPETITION OF CALL

83 When a station called does not reply, the call should not normally be repeated until after an interval of at least five minutes and should not then normally be renewed until after a further interval of fifteen minutes.

* There is no SSFC selective calling service with Portishead Radio.

REPLY TO CALLS

84 The reply to calls should be made in accordance with the normal provisions of Sections **89**, **91**, **97** and **98** when using radiotelegraphy and Sections **141**, **142**, **143** and **149–151** when using radiotelephony.

ALL SHIPS CALL

The use of an "All Ships Call" shall be confined to distress and urgency in the MF and HF bands and the announcement of vital navigational warnings in those bands; additionally it may be used for safety purposes in the VHF band. This call may only be used to supplement, if required, the distress procedure specified in Sections **125(a)**, **(b)**, and **175** and shall in no circumstances be used in place of such procedures, in particular the alarm signals mentioned in Sections **120** and **171**.

FREQUENCIES TO BE USED

85 SSFC selective calls may be sent on:

(a) the following calling frequencies:
500 kHz.
2170.5 kHz.
4125.0 kHz.
4419.4 kHz.
6521.9 kHz.
8780.9 kHz.
13162.8 kHz.
17294.9 kHz.
22658.0 kHz.
156.8 MHz.

and from 15 January 1985 on:

(b) appropriate radiotelephone working frequencies in the band 1606.5–4000 kHz (Regions 1 and 3), 1605–4000 kHz (Region 2);
(c) appropriate radiotelephone working frequencies in the band 156–174 MHz.

Selective calling on 156.8 MHz should normally be only in the direction coast station to ship or intership. Selective calls from ship to coast stations should whenever possible be sent on other VHF frequencies, as appropriate.

A digital selective calling system may be used if it is in full conformity with the relevant CCIR Recommendations.

Sect. 85

The frequencies assignable to ship and coast stations for digital selective calling are as follows:

SHIP STATIONS	COAST STATIONS
4187.6 kHz	4357 kHz
6281.4 kHz	6506 kHz
8375.2 kHz	8718.5 kHz
12562.3 kHz	13100 kHz
12562.8 kHz	13100.5 kHz
16749.9 kHz	17232 kHz
16750.4 kHz	17232.5 kHz
22248 kHz	22595 kHz
22248.5 kHz	22595.5 kHz

However, from 15 January 1985 the ship station frequencies for digital selective calling for purposes other than distress and safety become as follows:

4187.5 kHz
6281.5 kHz
8375.5 kHz
12562 kHz
12562.5 kHz
16750.5 kHz
16751 kHz
22248 kHz
22248.5 kHz

The coast station frequencies remain unchanged for this purpose.

From 15 January 1985 the frequencies used for distress and safety purposes using digital selective calling are:

490 kHz (shore-to-ship)*
2187.5 kHz
4188 kHz
6282 kHz
8375 kHz
12563 kHz
16750 kHz
156.525 MHz

* Subject to causing no harmful interference to distress and safety communications on 500 kHz and to no transmissions being carried out during the silence periods.

Appropriate working frequencies in the MF, HF and VHF bands may also be used for digital selective calling from 15 January 1985.

The SSFC system may be in operation until it is superseded by the digital selective calling system.

CHAPTER IV

Procedures in the Maritime Mobile Radio Telegraph Service

PART 1—USE OF FREQUENCIES

GENERAL

86 Ship stations equipped with radiotelegraph apparatus intended to be used for normal traffic by morse telegraphy must be provided with devices permitting change-over from transmission to reception and vice versa without manual switching. In addition these stations should be able to listen on the reception frequency during the course of periods of transmission.

87 Whenever the class of emission A2A, A2B*, H2A, H2B† is mentioned, the type of transmission must, except for selective calling purposes, be telegraphy by on-off keying of the modulated emission, to the exclusion of on-off keying of the modulating audio frequencies only.

88 Stations of the maritime mobile service employing single side-band morse radiotelegraph transmissions must use upper side-band emissions. The frequencies specified for class H2A and H2B* emission in the maritime mobile service such as 500 and 8364 kHz must be used as carrier frequencies.

BANDS BETWEEN 415 and 535kHz

89 (1) Transmitters used in ship stations working in the authorised bands between 415 and 535 kHz must be provided with devices readily permitting a material reduction of power.

All ship stations equipped to work in the authorised bands between 415 and 535 kHz must be able to:–

(a) Send class A2A and A2B of H2A and H2B emissions and receive class A2A emissions with a carrier frequency of 500 kHz.

* This is to cater for the automatic reception of the radiotelegraph alarm signal.
† This is to cater for the automatic reception of the radiotelegraph alarm signal and for selective calling.

(b) Send, in addition, class A1A and either A2A or H2A emissions on at least two working frequencies.
(c) Receive, in addition, class A1A, A2A and H2A emissions on all other frequencies necessary for their service.

The provisions of (b) and (c) do not apply to apparatus provided solely for distress, urgency and safety purposes.

(2) A ship station equipped with narrow-band direct-printing telegraph apparatus to work in the authorised bands between 415 and 535 kHz shall be able to send and receive class F1B or J2B emissions on at least two working frequencies.

Narrow-band direct-printing telegraphy is forbidden in the band 490–510 kHz.

Distress

(3) The frequency 500kHz is the international distress frequency for radiotelegraphy, it is used for this purpose by ship, aircraft and survival craft stations using frequencies in the bands between 415 and 535 kHz when requesting assistance from the maritime services. (For particulars of this use see Chapter V.)

In addition 500 kHz may be used only:–

(a) for call and reply using morse telegraphy or SSFC selective calling;
(b) by coast stations to announce by morse telegraphy that a traffic list is about to be sent on a working frequency;
(c) with discretion, for direction-finding outside areas of heavy traffic, and on condition that no interference is caused to signals of distress, urgency and safety.

Apart from the transmissions authorised on 490 kHz and 500 kHz all transmissions on the frequencies between 490 and 510 kHz are forbidden.

Any emission capable of causing harmful interference to distress, alarm, urgency or safety signals on 500 kHz is prohibited.

In order to facilitate the reception of distress calls, other transmissions on the frequency 500 kHz shall be reduced to a minimum, and in any case shall not exceed one minute.

Before transmitting on 500 kHz, stations, other than those in distress, must listen on this frequency for a reasonable period to make sure that no distress traffic is being sent.

Call and Reply

(4) The general calling frequency, which must be used by ship and coast stations using the bands between 415 and 535 kHz and by aircraft stations

wishing to communicate with stations of the maritime mobile service using frequencies in these bands, is the frequency 500 kHz.

SSFC selective calling may be carried out on the frequency of 500 kHz in the shore-to-ship, ship-to-shore and ship-to-ship direction.

A ship station calling a coast station must, whenever possible, and particularly in regions of heavy traffic, indicate to the coast station that it is ready to receive on the working frequency of that station. The ship station should make sure beforehand that this frequency is not already being used by the coast station.

The frequency for replying to a call sent on the general calling frequency is either 500 kHz or the frequency specified by the calling station.

In regions of heavy traffic, coast stations may answer calls made by ship stations of their own nationality in accordance with special arrangements made by the Administration concerned.

For call and reply during periods of distress working on 500 kHz, see (5) below.

Traffic

(5) Ship stations must use working frequencies chosen from the following: 425, 454, 468, 480 and 512 kHz.

Ship stations should indicate in their call the working frequency they propose to use for the sending of traffic.

When 500 kHz is being used for distress, 512 kHz may be used by ship and coast stations as a supplementary call and reply frequency; coast stations may make use of other arrangements for call and reply which shall be notified in the List of Coast Stations.

When 512 kHz is in use as a supplementary call and reply frequency, it must not be used as a working frequency by ship stations in that area.

In regions of heavy traffic, coast and ship stations must use Class A1A emission on their working frequencies.

Silence Periods

(6) In order to increase the safety of life at sea and over the sea, all stations of the maritime mobile service normally keeping watch on frequencies in the authorised bands between 415 and 535 kHz shall, during their hours of service, take the necessary measures to ensure watch on the international distress frequency 500 kHz for three minutes twice an hour beginning at x h 15 and x h 45 Coordinated Universal Time (U.T.C.) by an operator using headphones or a loudspeaker.

During these periods, except for the transmission of distress, urgency and safety signals provided for in Chapter V:

(a) transmissions shall cease in the bands between 485 and 515 kHz;
(b) outside these bands, transmissions of stations of the mobile service may continue, stations of the maritime mobile service may listen to these transmissions on the express condition that they first ensure watch on the distress frequency.

Normal Watch

(7) Stations of the maritime mobile service open to public correspondence and using frequencies in the authorised bands between 415 and 535 kHz shall, during their hours of service, remain on watch on 500 kHz. This watch is obligatory only for class A2A and H2A emissions.

These stations, while observing the requirements for the silence periods, are authorised to relinquish this watch only when they are engaged in communications on other frequencies.

When they are engaged in such communications:

Ship stations may maintain this watch on 500 kHz by means of an operator using headphones or a loudspeaker or by some appropriate means such as an automatic alarm receiver.

Coast stations may maintain this watch on 500 kHz by means of an operator using headphones or a loudspeaker (in the latter case an indication may be inserted in the List of Coast Stations).

Ship stations, while observing the requirements for the silence periods, are also authorised to relinquish this watch when it is impractical to listen by split headphones or by loudspeaker and by order of the master in order to repair or carry out maintenance required to prevent imminent malfunction of (a) equipment for radiocommunication used for safety, (b) radionavigational equipment, (c) other electronic navigational equipment. Additional information may be found in the relevant provisions of the International Convention for the Safety of Life at Sea.

BANDS BETWEEN 1605 AND 4000 kHz

90 (1) All ship stations equipped with narrow-band direct-printing telegraph apparatus to work in the authorised bands between 1605 and 4000 kHz shall be able to send and receive class F1B or J2B emissions on at least two working frequencies.

Narrow-band direct-printing telegraphy is forbidden in the band 2170–2194 kHz except, from 15 January 1985, for distress and safety traffic on 2174.5 kHz.

(2) Until further notice a limited radiotelegraphy service is conducted between suitably equipped small craft and United Kingdom coast stations in the band between 1605 and 1625 kHz.

BANDS BETWEEN 4000 and 27500 kHz

91 (1) In ship stations, all apparatus using class A1A emissions on frequencies in the authorised bands between 4000 and 27500 kHz must satisfy the following conditions:

(a) in each of the bands necessary to carry on the station's service it shall have at least two calling frequencies and preferably not less than two working frequencies. One of the calling frequencies in each band shall be within one of the common coast station receiving channels contained in Appendix 34 of the I.T.U. Radio Regulations, and another in each band should be selected from within the other channels in Appendix 34 taking account of the receiving channel or channels of the coast station with which the ship station most frequently communicates;
(b) changes of frequency in transmitting apparatus shall be effected as quickly as practicable, but within fifteen seconds in any event;
(c) in the matter of frequency changing, receiving apparatus shall be capable of a performance equal to that of the transmitting apparatus.

Division of the Exclusive Maritime Frequency Bands

(2) Each of the bands reserved for ship radiotelegraph stations, except for the band 25070 to 25110 kHz, is sub-divided into the following categories:

(a) Two bands of frequencies for ship stations using wide-band telegraphy, facsimile and special transmission systems;
(b) a band of frequencies for oceanographic data transmissions;
(c) a band of frequencies (paired) for ship stations using narrow-band direct-printing telegraph and data transmission systems at speeds not exceeding 100 bauds;
(d) one or two bands of frequencies (non-paired) for ship stations using narrow-band direct-printing telegraph and data transmission systems at speeds not exceeding 100 bauds;
(e) a band of A1A morse telegraphy calling frequencies;
(f) a band of digital selective calling frequencies;
(g) one or two bands of working frequencies for ship stations using A1A morse telegraphy.

The band 25070 to 25110 kHz is divided into three parts, beginning at the low frequency end:

(a) a band of A1A morse telegraphy calling frequencies;
(b) a band of frequencies (non-paired) for ship stations using narrow-band direct-printing telegraph and data transmission systems at speeds not exceeding 100 bauds;
(c) a band of working frequencies for ship stations using A1A morse telegraphy.

An internationally agreed frequency channelling plan is in operation in all the above bands and channels are assigned in accordance with an orderly system of rotation which ensures approximately the same number of assignments on each channel.

Ship stations equipped to operate in the calling and working bands must employ only class A1A morse telegraphy emissions at speeds not exceeding 40 bauds. Survival craft stations may use class A2A or H2A emissions in these bands.

Mobile stations equipped for wide-band telegraphy, facsimile and special transmission systems may, in the frequency bands reserved for such use, employ any class of emission provided that such emissions can be contained within the wide-band channels. However, A1A morse telegraphy and telephony are excluded, except for circuit alignment purposes.

All ship stations equipped with narrow-band direct-printing telegraph apparatus to work in the authorised bands between 4000 and 27500 kHz shall be able to send and receive class F1B emissions on at least two frequencies in each band as required to their service.

Ship and coast stations may use the digital selective calling system in accordance with Chapter III.

Call and Reply

(3) To make a call, a ship station should use one of its assigned calling frequencies. Endeavour should be made to select for calling the band with the most favourable propagation characteristics for effecting reliable communication. In the absence of reliable data, a ship station should listen for the wanted coast station before making the call, and the strength and readability of signals from the coast station will provide a useful guide as to the preferable band for calling.

In order to reduce interference on the common calling channels, they shall be used only when a ship cannot use a calling frequency within the group indicated as a coast station receiving channel of the station with which it desires to communicate or when the coast station has indicated that it is keeping watch only on the common calling channels.

The calling frequency to be used by a coast station, in each of the bands for which it is equipped, is its normal working frequency as shown in the List of Coast Stations.

Unless the calling station specifies otherwise, the frequency for reply to a call made in any band is as follows:

(a) for a ship station, one of its assigned calling frequencies in the same band as that used by the calling station;
(b) for a coast station, its normal working frequency in the same band as that used by the calling station;

Except for communications relating to the safety of life, and search and rescue, the use of frequencies in the ship calling bands for any purpose other than call and reply is forbidden.

Traffic

(4) After establishing communication on a calling frequency a ship station changes to a working frequency for the transmission of traffic.

Ship stations should endeavour to ensure that their assigned working frequencies are given equal use for traffic purposes.

In cases of poor receiving conditions on the working frequency stated by the ship station, the coast station may request the ship station to change to transmission on any other working frequency whenever the ship is technically able to do so. Such capability is indicated by the transmission of the code QOO.

Abbreviations for indicating Working Frequencies

(5) Abbreviations for indicating working frequencies:

(a) if the frequency expressed in kHz has no decimal value, the last three figures shall be transmitted;

(b) if the frequency expressed in kHz has a decimal value, the last three figures before the decimal point and the first decimal figure shall be transmitted. The letter R shall also be transmitted as the decimal point.

PART 2—GENERAL PROCEDURE

GENERAL

92 The use of the morse code signals is obligatory in the maritime mobile radiotelegraph service. However, for special types of radiocommunication the use of other signals is not precluded.

A list of abbreviations indicating words and phrases in common use is given in Appendix 2. Only these abbreviations are to be used in the Maritime Mobile Service.

CONTROL OF WORKING

93 The provisions of this Section are not applicable in cases of distress, urgency or safety.

In communication between coast stations and ship stations, the ship station shall comply with the instructions given by the coast station, in all questions relating to the order and time of transmission, to the choice of frequency and class of emission, and to the duration and suspension of work.

In communication between ship stations, the station called controls the working. However, if a coast station finds it necessary to intervene, these stations shall comply with the instructions given by the coast station.

Before transmitting, a station must take precautions to ensure that its emissions will not interfere with transmissions already in progress; if such interference is likely, the station awaits an appropriate break in the communications in progress. This obligation does not apply to stations where unattended operation is possible through automatic means on frequencies dedicated to narrow-band direct-printing.

If these precautions having been taken, the emissions of the station should, nevertheless, interfere with a transmission already in progress the following rules shall be applied:

(a) The ship station whose emission causes interference to the correspondence of a ship station with a coast station, shall cease sending at the first request of the coast station.
(b) The ship station whose emission causes interference to communications already in progress between ship stations shall cease sending at the first request of one of the other stations.
(c) The station which requests this cessation shall indicate the approximate waiting time imposed on the station whose emission it suspends.

When a ship station transmits on a working frequency of a coast station and causes interference with the transmission of such coast station, it shall suspend working at the first request of the latter.

CALLING PROCEDURE

94 (1) For making the call and for transmitting preparatory signals, the calling station shall use a frequency on which the station called keeps watch.

As a general rule, it rests with the ship station to establish communication with the coast station. For this purpose, the ship station may call the coast station only when it comes within the service area of the latter, that is to say, that area within which, by using an appropriate frequency, the ship station can be heard by the coast station.

However, a coast station having traffic for a ship station may call this station if it has reason to believe that the ship station is keeping watch and is within the service area of the coast station.

Method of Calling

(2) The call consists of:
—the call sign of the station called, not more than twice;
—the word DE;

—the call sign of the calling station, not more than twice; the service abbreviation indicating the working frequency and, if useful, the class of emission which the calling station proposes to use for the transmission of its traffic;
—as appropriate:
—the service abbreviation to indicate a priority message other than a distress, urgency or safety message and to indicate the reason for the call.
—the service abbreviation to indicate the calling station wishes to send its radiotelegrams in series.
—the letter K.

Repetition of Calls

95 When a station called does not reply to a call sent three times at intervals of two minutes, the calling shall cease and shall not be renewed until after an interval of fifteen minutes. Calling between a station of the maritime mobile service and an aircraft station may be renewed after an interval of five minutes.

In the HF bands, for normal calling, when the band with the most favourable propagational characteristics has been selected, the call may be transmitted twice at an interval of not less than one minute; thereafter it shall not be repeated until after an interval of three minutes.

GENERAL CALL TO "ALL STATIONS"

96 Two types of calling signal to "all stations" are recognised:
(a) call CQ followed by the letter K;
(b) call CQ not followed by the letter K.

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

In regions where traffic is congested, the use of the call CQ followed by the letter K is forbidden. As an exception it may be used with signals denoting urgency.

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

The call CP followed by two or more call signs or by a code word (call to certain receiving stations without request for reply) is used only for the transmission of information of any nature intended to be read or used by the persons authorised.

PROCEDURE FOR REPLYING TO CALLS

97 (1) Except as otherwise provided, for transmitting the reply to calls and to preparatory signals, the station called uses the frequency on which the calling station keeps watch, unless the calling station has specified a frequency for the reply.

Reply to a call

(2) The reply to a call consists of:
—the call sign of the calling station, not more than twice;
—the word DE;
—the call sign of the station called, once only.

Agreement on the frequency to be used for traffic

(3) If the station called is in agreement with the calling station it transmits:
—the reply to the call;
—the service abbreviation indicating that from that moment onwards it will listen on the working frequency announced by the calling station;
—any other necessary indications;
—the letter K if the station called is ready to receive the traffic from the calling station.

If the station called is not in agreement with the calling station it transmits:
—the reply to the call;
—the service abbreviation indicating the working frequency to be used by the calling station.

When agreement is reached regarding the working frequency to be used by the calling station, the called station indicates its readiness to receive traffic from the calling station.

Reply to request for transmission by series

(4) The station called, in replying to a calling station which has proposed to transmit its radiotelegrams by series (see Section **94**) shall indicate, by means of the service abbreviation, its acceptance or refusal. In the former case it shall specify, if necessary, the number of radiotelegrams it is ready to receive in one series.

Difficulties in reception

(5) If the station called is unable to accept traffic immediately, it will make the reply to the call followed by the signal · – · · · (wait), and a number indicating in minutes the probable duration of the waiting time thus ABCD

(not more than twice) DE XYZ QTC2 · – · · · 5 · – · · · (meaning "I have two radiotelegrams to transmit to you, wait five minutes"); or, if other ships are waiting, it may indicate a numbered turn by using the service abbreviation QRY followed by the number of the turn.

If the probable duration exceeds ten minutes (five minutes in communications between aircraft and maritime mobile stations), the reason for the delay should be given.

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

When a coast station receives calls from several mobile stations at practically the same time it decides the order in which these stations may transmit their traffic. Its decision shall be based on the priority (see Section **20**) of the radiotelegrams, radiotelephone calls and radiotelex calls that mobile stations have on hand and on the need for allowing each calling station to clear the greatest possible number of communications.

EXAMPLE OF CALL, REPLY AND TRANSFER TO WORKING FREQUENCIES

98 A ship, whose call sign is ABCD, wishes to transmit four radiotelegrams on the working frequency 425 kHz to a coast station whose call is XYZ and wishes to know how many radiotelegrams it can send at a time. After ascertaining that the station is not engaged, the ship signals on the calling frequency 500 kHz:

XYZ (not more than twice) DE ABCD (not more than twice) QSW 425 QTC 4 K.

The coast station XYZ, which is ready to receive traffic on 425 kHz and to transfer to its own working frequency 482 kHz, replies:

ABCD (not more than twice) DE XYZ QSY 425 QSW 482 K.

The ship changes to its working frequency 425 kHz and signals:

XYZ (not more than twice) DE ABCD QSG? K.

The coast station replies on 482 kHz:

ABCD (not more than twice) DE XYZ QSG (1, 2, 3 or 4) K.

If the ship ABCD is in a heavy traffic region and is aware that the normal working frequency of coast station XYZ is 482 kHz it should make the initial call on the calling frequency 500 kHz as follows:

XYZ (not more than twice) DE ABCD (not more than twice) QSW 425 QTC4 QSX 482 K.

The coast station replies on 482 kHz as follows:

ABCD (not more than twice) DE XYZ QSY 425 K.

The ship changes to its working frequency 425 kHz and signals:

XYZ (not more than twice) DE ABCD QSG? K.

The coast station replies:

ABCD DE XYZ QSG (1, 2, 3 or 4) K.

COAST STATION TRAFFIC LISTS

99 Each coast station, as far as practicable, transmits its call in the form of "traffic lists" consisting of the call signs in alphabetical order of all mobile stations for which it has traffic on hand. These calls shall be made at specified times at intervals of not less than two hours and not more than four hours during the working hours of the coast station.

In the bands between 4 and 27.5 MHz, however, traffic lists may be transmitted at intervals of not less than one hour.

Coast stations transmit their traffic lists on their normal working frequencies in the appropriate bands. This transmission must be preceded by a general call to all stations (CQ).

The call to all stations announcing the traffic list may be sent on a calling frequency in the following form:

—CQ, not more than three times;

—the word DE;

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

—QSW followed by the indication of the working frequency or frequencies upon which the traffic list is about to be sent.

In no case may this preamble be repeated.

The above provisions are obligatory when 500 kHz is used; they do not apply when frequencies in the bands between 4 and 27.5 MHz are used.

The hours at which coast stations transmit their traffic lists, and the frequencies and classes of emission which they use for this purpose are published in the List of Coast Stations.

Ship stations should, as far as possible, listen to the traffic lists transmitted by coast stations. On hearing their call sign in such a list they must reply as soon as they can do so.

When the traffic cannot be sent immediately, the coast station must inform each ship station concerned of the probable time at which working can begin, and also, if necessary, the frequency and class of emission which will be used.

SIGNAL FOR END OF WORK

100 The end of work between two stations is indicated by each station signalling · · · – · – (end of work).

This signal is also used when the transmission of radiotelegrams of general information, meteorological information and general safety notices is finished and when transmission is ended in a long distance

radiocommunication service with deferred acknowledgment of receipt or without acknowledgment of receipt.

FAILURE TO ESTABLISH COMMUNICATION WITH A UNITED KINGDOM COAST STATION

101 When a ship station passes within the service area of a United Kingdom coast station and is prevented for any reason from communicating with that station, it is the responsibility of the ship station to secure the redirection of any traffic held for the ship by that coast station, through the first United Kingdom coast station with which communication is established.

INFORMATION TO BE FURNISHED BY A SHIP STATION (TR)

102 A coast station may, by means of the abbreviation TR, ask a ship station to furnish it with information concerning its position and voyage.

The TR comprises:

—the name of the ship;

—the approximate distance, in nautical miles, and bearing of the ship from the coast station or a known geographical location; or the position in latitude and longitude;

—the course and speed, if available;

—the next port of call.

Example:

GLD DE GBTT TR QUEEN ELIZABETH 2 100 WEST BISHOPS ROCK SOUTHAMPTON AR.

The information, preceded by the abbreviation TR, should be furnished by the ship station without prior request from the coast station whenever such a measure seems appropriate. The provision of this information is furnished only on the authority of the master or person responsible for the ship.

This information is required by coast stations for the proper circulation of traffic; instructions have been given that a TR should be obtained by coast stations in the United Kingdom and the Irish Republic from every ship which communicates with them. In order to avoid unnecessary signalling a United Kingdom ship, upon establishing communication with one of these coast stations, is requested to furnish a TR without waiting for the coast station to ask for it.

Fishing Vessels should report their position to the nearest coast station:

(a) on leaving and arriving in port;

(b) on passing from the area of one coast station to another.

In the absence of any formal position reporting systems, fishing vessels should also report:

(c) on arrival at the fishing grounds;
(d) after proceeding a distance of 50 miles or more to another position within the fishing grounds or any other change of intention.

Failure of the radio equipment on board a fishing vessel should be reported, together with the position and proposed movements, to the owners or their representatives ashore by requesting any vessel within visual contact range to pass the report through the nearest coast station.

CLOSURE OF SERVICE ON SHIP STATIONS

103 (1) Ship stations whose service is not continuous shall not close before:

(a) finishing all operations resulting from a distress call, urgency or safety signal;
(b) exchanging, so far as practicable, all traffic originating in or destined for coast stations situated within their service area and for other ship stations which, being within their service area, have indicated their presence before the actual cessation of work.

Any ship station not having fixed working hours shall inform the coast stations with which it is in communication of the time of closing and the time of re-opening its service.

Arrival in, and Departure from, Port

(2) Any ship station arriving at an intermediate or terminal port, and whose service is about to close, shall:

(a) notify accordingly the nearest coast station and, if appropriate, the other coast stations with which it generally communicates;
(b) not close until after the disposal of traffic on hand, unless this conflicts with the regulations in force in the country of the port of call.

Ship station operators must advise the coast stations concerned during their last watchkeeping period before docking that they expect to enter port before the next watchkeeping period begins, irrespective of whether the period of non-watchkeeping extends to two hours only or to ten hours as in the case of the break between 2200 and 0800 next day.

Upon departure from port the ship station must notify the coast stations concerned that its service is re-opening as soon as such re-opening is permitted by the regulations in force in the country of the port of departure. However, a ship station not having fixed hours of service may defer such notification until the station first re-opens its service after departure from port.

Failure to notify the appropriate station or stations could lead to unnecessary enquiries with consequent delay to traffic.

TRANSMISSION OF TEST SIGNALS

104 When it is necessary for a ship station to send signals for testing or adjustment which are liable to interfere with the working of neighbouring coast stations, the consent of these stations must be obtained before such signals are sent.

Test signals, either for the adjustment of a transmitter before making a call or for the adjustment of a receiver, shall not be continued for more than ten seconds and shall be composed of a series of VVV followed by the call sign of the station emitting the test signals.

The operator should always listen on the appropriate frequency before testing in order to guard against interfering with any transmission which might be in progress.

To avoid irregular radiation of distress signals when testing automatic distress keying equipment the following precautions should be observed:

(a) Tests should not be conducted near any antenna or suspended wire which might re-radiate the signal, and all antennas associated with the main and emergency transmitters and receivers should be earthed.
(b) An artificial antenna should be used on the transmitter under test.
(c) Wherever possible, the operation of the distress keying equipment should be tested without the transmitter being energised. Where this is not possible the test should be conducted on minimum power and the distress keying equipment momentarily switched in; on no account should this be long enough to allow a complete distress signal to be sent.

As a safeguard, the signal "Test DE ... (call sign of ship)" should be sent before and after all tests.

It is of the utmost importance that radiation tests of portable transmitters for lifeboats should be made only by using the hand signalling key. On no account may tests be made with the switch in either of the distress positions unless the antenna is disconnected.

PART 3—TRANSMISSION OF RADIOTELEGRAMS

TRANSMISSION OF RADIOTELEGRAMS TO COAST STATIONS

105 In routeing radiotelegrams, a ship station should, as a general rule, give preference to the coast station established on the territory of the country of destination, or the country likely to provide the most suitable transit route for radiotelegrams.

However, to expedite or facilitate the routeing of radiotelegrams to a coast station, a ship station may transmit them to another ship station. The latter shall dispose of such radiotelegrams in the same manner as if they originated with itself. It should include in the preamble of such radiotelegrams an indication that they have been relayed (see Section **58**).

A ship station, when using class A2A or H2A emission in the bands between 415 and 535 kHz to transmit radiotelegrams to a coast station which is not the nearest to it, shall cease working or shall change frequency or class of emission upon the first request made by a coast station which is nearer to the ship station than the coast station being worked, when this request is based upon interference which the working of the ship station causes to the nearer coast station.

If the sender of a radiotelegram has indicated the coast station to which he desires his radiotelegram to be sent, the ship station shall, in order to effect this transmission to the coast station indicated, wait, if necessary, until the conditions specified above are fulfilled.

In order to facilitate disposal of traffic, and subject to such restrictions as individual governments may impose, coast stations may, in exceptional circumstances and with discretion, without incurring additional charges, exchange radiotelegrams and service messages relating thereto.

Ships fitted with radiotelephony as well as radiotelegraphy should normally transmit radiotelegrams by radiotelegraphy.

PRIORITY AND ORDER OF WORK

106 Radiotelegrams must be transmitted in the order of priority given in Section **20**.

Radiotelegrams of the same order of priority must be transmitted in the progressive order of their times of handing-in.

In communications between a coast station and a ship station, the coast station decides the order of working and the method of transmitting radiotelegrams, i.e. singly or by series. In the case of communications between two ship stations the decision rests with the station called.

In cases where both stations are able to change from sending to receiving without manual switching, and working conditions permit, it may be mutually agreed by use of the service abbreviation QSK before work commences, that the sending station will continue to transmit until the completion of its traffic, or until the receiving station breaks in on the transmission with the service abbreviation BK.

NUMBERING IN DAILY SERIES

107 Radiotelegrams of all kinds, including paid and unpaid service radiotelegrams, transmitted by ship stations shall be numbered in a separate

daily series to each station. Number 1 shall be given to the first radiotelegram sent each day, commencing at 0001 U.T.C. to each separate station.

A series of numbers which has begun in radiotelegraph should be continued in radiotelephony and vice versa.

PREPARATORY SIGNALS

108 When communication is established between two stations on working frequencies, and working procedures agreed, the transmission of a single radiotelegram or a series, or traffic working under the BK method, is preceded by the following:

—the call sign of the receiving station;
—the word DE;
—the call sign of the sending station.

OPERATING SIGNALS AND PREAMBLE

Commencing Signal

109 (1) The transmission of a radiotelegram is preceded by the signal – · – · –

Preamble

(2) The preamble to a radiotelegram consists of the prefix (if any), the name of the ship or office of origin, the serial number, the number of words, the date and time groups and any service instructions such as routeing instructions.

The Break Sign

(3) The break sign (– · · · –) is used to separate the preamble from the service instructions, the service instructions from each other, the service indications from the address, the address from the text and the text from the signature.

Terminating Signal

(4) The transmission of a radiotelegram is terminated by the signal · – · – ·

FORM OF TRANSMISSION OF A RADIOTELEGRAM

110 The complete form of transmission of a radiotelegram is as follows:

– · – · – (commencing signal)
Prefix (if any).
Name of ship of origin (office of origin if originating on land).

Serial number of radiotelegram.
Number of words.
Date.
Time of handing-in.
Service instructions (if any).
– · · · – (break sign).
Service indications (if any, and separated by break sign if more than one).
– · · · – (break sign).
Address.
– · · · – (break sign).
Text (if no signature follows, send terminating signal here).
– · · · – (break sign).
Signature (if any).
· – · – · (terminating signal).

Example

– · – · – CANBERRA 5 7 12 2205 – · · · – BROWN 25 NEWSTREET SOUTHAMPTON – · · · – ARRIVE TOMORROW – · · · – JOHN · – · – ·

Figures, or mixed groups of letters, figures or signs in the address, text or signature of a radiotelegram must be repeated at the end of its transmission. Proper names and doubtful words may also be repeated as considered necessary. In Government radiotelegrams in plain language, proper names and doubtful words must be repeated.

This repetition may be preceded by the abbreviation COL (collate) and must be ended with the terminating signal (· – · – ·).

Upon completion of the transmission of a single radiotelegram, or of the last in a series, the terminating signal should be followed by the letter K, inviting the receiving station to acknowledge receipt.

LONG RADIOTELEGRAMS

111 Long radiotelegrams, whether in plain language or in secret language, are normally regarded as the equivalent of a series of radiotelegrams. When employing the BK method of working (see Section **106**) the transmitting station may continue to send until the completion of the radiotelegram, or until the receiving station breaks in by transmitting the abbreviation BK.

If this method of working is not employed, long radiotelegrams should, as a general rule, be transmitted in sections of fifty words in the case of plain language and twenty words or groups in the case of secret language. At the end of each section, the signal · · – – · · (?), meaning, "Have you received the radiotelegram correctly up to this point?" should

be transmitted. If the section has been correctly received the receiving station transmits the letter K and the transmission of the next section proceeds.

Any necessary repetitions should be given at the end of each section.

ACKNOWLEDGMENT OF RECEIPT

112 The acknowledgment of receipt of a radiotelegram or a series of radiotelegrams is given by the receiving station in the following manner:

—the call sign of the sending station;
—the word DE;
—the call sign of the receiving station;
—the letter R followed by the number of the radiotelegram; or
—the letter R followed by the number of the last radiotelegram of a series.

Government radiotelegrams written wholly or partly in secret language must be repeated (collated) by the receiving station; acknowledgment of receipt should not be given until confirmation is received from the transmitting station that the repetition has been checked with its copy of the radiotelegram and found correct. No charge is levied for this repetition.

PROCEDURE WHEN COMMUNICATION BECOMES DIFFICULT

113 In the mobile service, when communication becomes difficult, the two stations in communication make every effort to complete the radiotelegram in course of transmission. The receiving station may request not more than two repetitions of a radiotelegram of which the reception is doubtful. If this triple transmission is ineffective, the radiotelegram is kept on hand in case a favourable opportunity for completing its transmission occurs.

If the transmitting station considers that it will not be possible to re-establish communication with the receiving station within twenty-four hours, it proceeds as follows:

(a) *If the transmitting station is a ship station* it immediately informs the sender of the reason for the non-transmission of his radiotelegram. The sender may then request:
  (i) that the radiotelegram be transmitted through another coast station or through other ship stations; or
  (ii) that the radiotelegram be held until it can be transmitted without additional charge; or
  (iii) that the radiotelegram be cancelled.

(b) *If the transmitting station is a coast station* it applies the provisions of Section **55**.

When a ship station subsequently transmits a radiotelegram thus held to the coast station which incompletely received it, this new transmission must bear the service instruction "ampliation" in the preamble of the radiotelegram. If the radiotelegram is transmitted to another coast station subject to the same Administration or the same private enterprise, the new transmission must bear the service instruction "ampliation via . . ." (insert here the call sign of the coast station to which the radiotelegram was transmitted in the first instance) and the Administration or private enterprise in question may claim only the charges relating to a single transmission. The "other coast station" which thus forwards the radiotelegram may claim from the ship of origin any additional charges resulting from the transmission of the radiotelegram over the general communication network between itself and the office of destination.

When the coast station designated in the address as the station by which the radiotelegram is to be forwarded cannot reach the ship of destination, and has reason to believe that such ship station is within reach of another coast station of the Administration or private enterprise to which it is itself subject, it may, if no additional charge is incurred thereby, forward the radiotelegram to this other coast station.

A station of the mobile service which has received a radiotelegram and has been unable to acknowledge its receipt in the usual way, must take the first favourable opportunity to give such acknowledgment.

When the acknowledgment of receipt of a radiotelegram transmitted between a ship station and a coast station cannot be given direct, it is forwarded through another ship or coast station by service advice if the latter is able to communicate with the station which has transmitted the radiotelegram in question. In any case no additional charge must result.

Administrations reserve the right to organise a long-distance radiocommunication service between coast stations and ship stations, with deferred acknowledgment of receipt, or without any acknowledgment of receipt. When there is doubt about the accuracy of any part of a radiotelegram transmitted under either of these systems, the indication "doubtful reception" is entered on the copy delivered to the addressee and the doubtful words or groups of words are underlined. If the words are missing blanks are left in the places where these words should be.

IDENTIFICATION OF SHIPS BEARING THE SAME NAME

114 When, because of duplication of names, the name of a ship is followed by its call sign, the latter should be separated from the name of the station by a fraction bar.

Example

ORIANA/GVSN (not ORIANAGVSN).

PREAMBLE FOR INLAND TRANSMISSION FROM COAST STATIONS

115 When a coast station sends over the inland telecommunication network a radiotelegram received from a ship station, it inserts the name of the coast station and the name of the last ship which acted as intermediary (should any retransmission have occurred).

In order to avoid any confusion with a telegraph office or a fixed station of the same name, the coast station may, if desirable, complete the indication of the name of the ship of origin by the word "ship" placed before the name of the station or origin.

ACCOUNTING PARTICULARS TO BE SUPPLIED TO COAST STATIONS

116 When the name and address of the Administration or private operating agency controlling a ship station are not given in the appropriate list of stations or are no longer in agreement with the particulars given therein, it is the duty of the ship station to furnish as a matter of regular procedure, to the coast station to which it transmits traffic, all the necessary information in this respect.

LONG DISTANCE SHIP-SHORE RADIOCOMMUNICATION

117 Particulars of this service are published in the List of Coast Stations and Volume I of the Admiralty List of Radio Signals.

CHAPTER V

Distress, Urgency, and Safety Communications by Radiotelegraphy

GENERAL

118 In the maritime mobile service distress communications by radiotelegraphy should be conducted in accordance with the following procedures. However, nothing in these procedures prevents:

(a) a ship or aircraft in distress from making use of any means at its disposal to attract attention, make known its position and obtain help;
(b) ships or aircraft engaged in search and rescue operations, in exceptional circumstances, from making use of any means at their disposal to assist a ship or aircraft in distress.

The distress call and the distress message shall be sent only on the authority of the master or person responsible for the mobile station. When using morse, the speed of transmission in cases of distress, urgency and safety shall not in general exceed sixteen words a minute.

In distress communications extreme care should be exercised by all stations taking part to ensure that their transmissions do not cause harmful interference to the other stations engaged, especially to the transmissions of the station actually in distress.

DISTRESS FREQUENCY

119 The frequency 500 kHz is the international distress frequency for morse telegraphy; it shall be used for this purpose by ship, aircraft and survival craft stations using frequencies in the bands between 415 and 535 kHz when requesting assistance from the maritime services. It shall be used for the distress call and distress traffic, for the urgency signal and urgency messages, and for the safety signal and, outside regions of heavy traffic, short safety messages. When practicable, safety messages should be transmitted on a working frequency after a preliminary announcement

on 500 kHz. From 15 January 1985 for distress and safety purposes, the classes of emission to be used on 500 kHz shall be A2A, A2B, H2A or H2B.

However, ship and aircraft stations which cannot transmit on 500 kHz should use any other available frequency on which attention might be attracted.

ALARM SIGNALS

120 (1) RADIOTELEGRAPH ALARM SIGNAL

The radiotelegraph alarm signal consists of a series of twelve dashes sent in one minute, the duration of each dash being four seconds and the duration of the interval between two consecutive dashes being one second. It may be transmitted by hand but its transmission by means of an automatic instrument is recommended.

Any ship station working in the band 415 to 535 kHz which is not provided with an automatic apparatus for the transmission of the alarm signal, shall be permanently equipped with a clock, clearly marking the seconds, preferably by means of a concentric seconds hand. This clock must be placed at a point sufficiently visible from the operator's table in order that the operator may, by keeping it in view, easily and correctly time the different elements of the alarm signal.

The purpose of this special signal is to actuate automatic devices giving an alarm to attract the attention of the operator when there is no listening watch on the distress frequency.

It must be used only:

(a) to announce that a distress call or message is about to follow;
(b) by a duly authorised coast station to announce the transmission of an urgent cyclone warning, which should be preceded by the safety signal;
(c) to announce the loss of a person or persons overboard when the assistance of other ships is required and cannot be obtained satisfactorily by the use of the urgency signal only.

In the case described in (c), the alarm signal must not be repeated by other stations and the message which follows must be preceded by the urgency signal (see Section **132**).

In cases (b) and (c) an interval of two minutes should, if possible, separate the end of the radiotelegraph signal and the beginning of the warning or the message.

(2) ALL SHIPS CALL SIGNAL (SSFC SELECTIVE CALLING SYSTEM)

The "All Ships Call" signal, which is reserved for alarm purposes only, consists of a continuous sequential transmission of eleven audio frequencies. The purpose of this special signal is to actuate receiving selectors on all ships regardless of individual code numbers.

The use of the "All Ships Call" is confined to distress and urgency in the MF and HF bands and the announcement of vital navigational warnings in those bands; additionally it may be used for safety purposes in the VHF band. This call may only be used to supplement, if required, the distress procedure specified in **125**(a) and (b), and shall in no circumstances be used in place of such procedures, in particular the alarm signal mentioned in **120**(1).

DISTRESS SIGNAL

121 In radiotelegraphy the distress signal consists of the group ···−−−··· (symbolised by $\overline{\text{SOS}}$) transmitted as a single signal in which the dashes are emphasised so as to be distinguished clearly from the dots.

This signal indicates that a ship, aircraft or other vehicle is threatened by grave and imminent danger and requests immediate assistance.

DISTRESS CALL

122 The distress call sent by radiotelegraphy consists of:

—the distress signal $\overline{\text{SOS}}$ sent three times;

—the word DE;

—the call sign of the mobile station in distress, sent three times.

The distress call shall have absolute priority over all other transmissions. All stations which hear it shall immediately cease any transmission capable of interfering with the distress traffic and shall continue to listen on the frequency used for the emission of the distress call. This call shall not be addressed to a particular station and acknowledgment of receipt shall not be given before the distress message which follows it is sent.

DISTRESS MESSAGE

123 The radiotelegraph distress message consists of:

—the distress $\overline{\text{SOS}}$;

—the name, or other identification, of the mobile station in distress;

—particulars of its position;
—the nature of the distress and the kind of assistance desired;
—any other information which might facilitate the rescue.

As a general rule, a ship shall signal its position in latitude and longitude (Greenwich), using figures for the degrees and minutes, together with one of the words NORTH or SOUTH and one of the words EAST or WEST. The signal · – · – · – shall be used to separate the degrees from the minutes.

A ship signalling a position in terms of latitude and longitude should always use a double figure notation for the minutes (and seconds if signalled):

e.g., 49.06.30 North, 04.30.20 West.

When practicable, the true bearing (in three-figure notation) and distance in nautical miles from a known geographical position may be given. If, however, the vessel is in distress on a rock or shoal, or near a headland or other place, a precise geographical indication of the position of the vessel should be given (for instance, "near the Skerries off Holyhead") in order that the place may not be mistaken for another place with the same name or another part of the coast. In the case of a vessel in distress and drifting, the Master should, after indicating his position, state whether his vessel is in the "light" or "loaded" condition and also the probable direction and rate of drift. He should also indicate any subsequent material change in the position or intentions of the vessel in distress.

An aircraft in flight will transmit as much information in its distress message as time permits. As a general rule, the message will contain its estimated position and the time, its heading in degrees stating whether magnetic or true, its indicated air speed and altitude, the type of aircraft, the nature of the distress, the type of assistance desired and any other information such as the intention of the person in command to alight on the sea.

DISTRESS TRAFFIC

124 Distress traffic consists of all messages relating to the immediate assistance required by the mobile station in distress.

In distress traffic, the distress signal shall be sent before the call and at the beginning of the preamble of any radiotelegram.

DISTRESS CALL AND MESSAGE TRANSMISSION PROCEDURE

125 The radiotelegraph procedure for the transmission of the distress call and distress message consists of:

(a) the alarm signal; followed in order by:
(b) the distress call and an interval of two minutes;
(c) the distress call;
(d) the distress message;
(e) two dashes of ten to fifteen seconds each;
(f) the call sign of the station in distress.

However, when time is vital, the second step (b), or even the first (a) and second (b) steps may be omitted or shortened. These two steps in the distress procedure may also be omitted in circumstances where the transmission of the alarm signal is considered unnecessary.

The distress call followed by the distress message shall be repeated at intervals, especially in the silence periods prescribed in Section 89(6), until an answer is received. However, the intervals shall be sufficiently long to allow time for stations preparing to reply to start their sending apparatus.

The alarm signal may also be repeated if necessary.

The transmissions under (e) and (f) are to permit direction-finding stations to determine the position of the vessel in distress and may be repeated at frequent intervals, if necessary.

When the vessel in distress receives no answer to a distress message sent on 500 kHz, the message may be repeated on any other available frequency upon which attention might be attracted.

Before total abandonment of a ship, or an aircraft, or immediately before a forced or crash landing (on land or sea) of an aircraft, the radio apparatus should be set for continuous emission, if considered necessary and circumstances permit.

ACKNOWLEDGMENT OF RECEIPT OF A DISTRESS MESSAGE

126 The acknowledgment of receipt of a distress message shall be given in the following form:

—the distress signal $\overline{\text{SOS}}$;
—the call sign of the station sending the distress message, sent three times;
—the word DE;
—the call sign of the station acknowledging receipt, sent three times;
—the group RRR;
—the distress signal $\overline{\text{SOS}}$.

OBLIGATION TO ACKNOWLEDGE RECEIPT OF A DISTRESS MESSAGE

127 Stations of the mobile service which receive a distress message from a mobile station which is, beyond any possible doubt,

(a) in their vicinity, must immediately acknowledge receipt; in areas where reliable communication with a coast station is practicable, ships should defer acknowledgment for a short interval to permit the coast station to acknowledge receipt;

(b) not in their vicinity, must acknowledge receipt after the elapse of a short interval to permit stations nearer to the mobile station in distress to acknowledge receipt without interference. However, a station in the maritime mobile service which has received a distress message from a mobile station which, beyond any possible doubt, is a long distance away need not acknowledge receipt of messages except when, although not in a position to render assistance, it has heard a distress message which has not been acknowledged.

Every ship station acknowledging receipt of a distress message shall, upon the order of the master or person responsible for the ship, transmit as soon as possible the following information in the order shown:

—its name;

—its position;

—the speed at which it is proceeding towards, and the approximate time it will take to reach, the mobile station in distress;

—additionally, if the position of the ship in distress appears doubtful, ship stations should also transmit, when available, the true bearing of the ship in distress preceded by the abbreviation QTE (for classification of bearings, see Appendix 4).

Before transmitting this message the station must assure that it will not interfere with the emissions of other stations better situated to render assistance to the station in distress.

When a mobile station has heard a distress message which has not been acknowledged, but is not itself in a position to render assistance, it must take all possible steps to attract the attention of other mobile stations which might be able to do so. For this purpose, with the approval of the master or person responsible for the ship, the distress call and message (and the alarm signal if necessary) may be repeated (see Section **129** for the procedure to be used).

CONTROL OF DISTRESS TRAFFIC

128 The control of distress traffic is the responsibility of the mobile station in distress, or of the station sending the distress message under

the conditions outlined in Section **129**. However, this control may be delegated to another station, e.g. to a coast station.

The station in distress or the station controlling distress traffic may impose silence either on all stations of the mobile service in the area or on any station which interferes with the distress traffic. It shall address this instruction to "CQ" (all stations) or to one station only, according to circumstances, followed by the signal "QRT $\overline{\text{SOS}}$". This signal is reserved solely for the use of the station in distress and the station controlling the distress traffic.

If it believes it essential to do so, any other station of the mobile service near the station in distress may also impose silence. For this purpose the signal "QRT DISTRESS" shall be used followed by the call sign of the station making the transmission, but great care must be taken not to interfere further with distress communications already in progress.

Any station of the mobile service which has knowledge of distress traffic and cannot itself assist the station in distress shall nevertheless follow such traffic until it is evident that assistance is being provided.

Until the message indicating that normal or restricted working may be resumed is received (see below), all stations which are aware of the distress traffic, and which are not taking part in it, are forbidden to transmit on the frequencies on which distress traffic is taking place.

A station of the mobile service which, while following distress traffic, is able to continue its normal service, may do so when the distress traffic is well established and on condition that it observes the provisions of the preceding paragraph and does not interfere with the distress traffic.

In cases of exceptional importance only, and provided that no interference or delay is caused to the handling of distress traffic, the transmission of urgency or safety messages on a working frequency may be announced, preferably by coast stations, on the distress frequency during a lull in the distress traffic. In these cases the signals provided for in Sections **132** and **133** should be sent once only (e.g. XXX DE ABC QSW . . . . .).

When complete silence is no longer considered necessary on a frequency which is being used for distress traffic, the station controlling the traffic shall transmit on that frequency a message addressed to "CQ" (all stations) in the following form indicating that restricted working may be resumed:

—the distress signal $\overline{\text{SOS}}$;
—the call CQ, sent three times;
—the word DE;
—the call sign of the station sending the message;
—the time of handing-in of the message;
—the name and call sign of the mobile station which is in distress;
—the service abbreviation QUZ.

When distress traffic has completely ceased on a frequency which has

been used for distress traffic, the station which has controlled the distress traffic shall transmit on that frequency a message to "CQ" (all stations) in the following form indicating that normal working may be resumed:

—the distress signal SOS;
—the call CQ, sent three times;
—the word DE;
—the call sign of the station sending the message;
—the time of handing-in of the message;
—the name and call sign of the mobile station which was in distress;
—the service abbreviation QUM.

When a station in distress has delegated control of distress working to another station, the person in charge of the station in distress should, when he considers silence no longer justified, immediately inform the controlling station, which will then advise "CQ" (all stations) that normal or restricted working may be resumed.

TRANSMISSION OF A DISTRESS MESSAGE BY A STATION NOT ITSELF IN DISTRESS

129 A mobile station, or a coast station, which learns that a mobile station is in distress, shall transmit a distress message in any of the following cases:

(a) when the station in distress is not itself in a position to transmit the distress message;
(b) when the master or person responsible for the ship or aircraft not in distress, or the person responsible for the coast station, considers that further help is necessary;
(c) when, although not in a position to render assistance, it has heard a distress message which has not been acknowledged.

In order that direction-finding stations shall not be misled or confused in locating a mobile station in distress, any distress message transmitted by a station which is not itself in distress, must always be preceded by the following call:

—the signal DDD SOS SOS SOS DDD;
—the word DE;
—the call sign of the transmitting station, sent three times.

This call shall be preceded by the alarm signal, followed by a two minute interval when necessary.

When a distress message is transmitted under the conditions of (c) above, the station making the transmission shall take all necessary steps to notify the authorities who may be able to render assistance.

A ship station should not acknowledge receipt of a distress message

transmitted by a coast station under the conditions mentioned above until the master or person responsible has confirmed that the ship station concerned is in a position to render assistance.

MISUSE OF DISTRESS SIGNAL

130 *Except in the case of distress the transmission of the distress signal is absolutely prohibited.*

Difficulty has been caused by the use of the distress signal by ships which, though not in imminent danger, have utilised it for the purpose of obtaining tugs or other assistance.

The distress signal is provided for use in case of imminent danger when immediate aid is necessary. Its use for less urgent purposes might result in insufficient attention being paid to calls from ships really in immediate need of assistance.

Where the transmission of the distress signal is not fully justified, use should be made of the urgency signal (XXX) (see Section **132**). This signal has priority over all other communications except distress, and should be quite sufficient for the purposes of obtaining the assistance of tugs, etc.

131 *Emergency Position-indicating Radiobeacon Signals* (see Section **183**).

URGENCY SIGNAL

132 (1) The radiotelegraph urgency signal shall be sent by a ship station only on the authority of the master or person responsible for the ship, and by a coast station only with the approval of the responsible authority.

The urgency signal consists of three repetitions of the group XXX, sent with the letters of each group and the successive groups clearly separated from each other. It shall be transmitted before the call.

The urgency signal indicates that the calling station has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or the safety of a person. However, the message shall be transmitted on a working frequency:

(a) in the case of a long message or a medical call, or
(b) in areas of heavy traffic in the case of the repetition of such a message.

An indication to this effect should be given at the end of the call.

The urgency signal has priority over all other communications, except distress. All stations which hear it shall take care not to interfere with the transmission of the message which follows it.

As a general rule, messages preceded by the urgency signal should be drawn up in plain language. They may be addressed to one station in particular or to "CQ" (all stations). If addressed to "CQ" the station responsible for its transmission must cancel it by a similarly addressed message as soon as it knows that action is no longer necessary.

Ship 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, a land station should, if possible, be notified of the receipt of the urgency signal. Thereafter normal working may be resumed. Coast and ship stations which are in communication on frequencies other than the one used for the transmission of the urgency signal may continue their normal service provided that the call which follows the urgency signal is not addressed to "CQ".

MEDICAL TRANSPORTS

(2) The term "medical transports" as defined in the 1949 Geneva Conventions and Additional Protocols, refers to any means of transportation by land, water or air, whether military or civilian, permanent or temporary, assigned exclusively to medical transportation and under the control of a competent authority of a party to a conflict or of neutral States and of other States not parties to an armed conflict, when these ships, craft and aircraft assist the wounded, the sick and the shipwrecked.

For the purpose of announcing and identifying medical transports which are protected under the above-mentioned Conventions, a complete transmission of the urgency signal shall be followed by the addition of the single group YYY. The use of these signals indicates that the message which follows concerns a protected medical transport. The data to be conveyed in such messages is given in Article 40 of the I.T.U. Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services.

The frequencies prescribed for urgency-signal calls may be used by medical transports for the purpose of self-identification and to establish communications. As soon as practicable, communications must be transferred to an appropriate working frequency.

SAFETY SIGNAL

133 The radiotelegraph safety signal consists of three repetitions of the group TTT, the individual letters of each group, and the successive groups being clearly separated from each other. It is sent before the call.

The safety signal indicates that the calling station is about to transmit a message containing an important navigational or important meteorological warning.

The safety signal and call should be sent on the international distress frequency of 500 kHz but may be sent on any other designated frequency for distress. The safety message which follows should be sent on a working frequency, particularly in areas of heavy traffic, and a suitable announcement to this effect must be made at the end of the call.

Safety messages are generally addressed to "all stations" (CQ). In some cases, however, they may be addressed to a particular station.

With the exception of messages transmitted at fixed times, the safety signal should be transmitted towards the end of the first available silence period and the message transmitted immediately after the silence period (see Section 89).

Meteorological and navigational warning messages must be transmitted upon receipt, and repeated at the end of the first silence period which follows.

All stations hearing the safety signal must listen to the safety message until they are satisfied that it is of no concern to them. They shall not make any transmission likely to interfere with the message.

CHAPTER VI

Procedures in the Maritime Mobile Radiotelephone Service

PART 1—GENERAL PROVISIONS

Chapter I of this Handbook deals with the general regulations and conditions to be observed by stations of the maritime mobile service. The operational efficiency and quality of the maritime radiotelephone service, no less than the radiotelegraph service, depends largely upon their strict observance. Attention is specially drawn to the following provisions.

LICENCE

134 Under the Wireless Telegraphy Acts, 1949 to 1967, a licence granted by the Secretary of State for the Department of Trade and Industry is necessary before any radio apparatus is installed or used on board ship (see Section **1**).

SECRECY

135 All persons concerned must preserve the secrecy of correspondence. The interception of communications other than those which the station is licensed to receive is forbidden. If such communications are received involuntarily they must not be reproduced in writing, communicated to other persons or used for any purpose whatsoever (see Section **4**).

IDENTIFICATION OF STATIONS

136 Coast stations normally identify themselves by using their geographical names generally followed by the word "Radio", or they may use an international call sign.

United Kingdom coast stations use their geographical names followed by the word "Radio"; e.g. Humber Radio.

Ship stations should normally identify themselves by the name of the ship, preceded when necessary, to avoid confusion with another ship of the same name, by the name of the owner. The international call sign

assigned to the ship may be used in certain cases. The use of fishing registration numbers, christian names and other unauthorised identifications is strictly forbidden (see also Section **24**).

Transmissions by ships without identification or with false identification, as well as the transmission or circulation of false or deceptive distress, urgency or safety messages, are strictly prohibited (see Section **6**).

OPERATORS' CERTIFICATES OF COMPETENCY

137 The radiotelephone installation of ships taking part in the maritime radiotelephone services in the bands between 1605 and 4000 kHz, in the exclusive maritime bands between 4 and 23 MHz and in the international maritime bands between 156 and 162 MHz must be under the control of an operator holding an appropriate certificate of competency, and an authority to operate issued by the Secretary of State for the Department of Trade and Industry. Provided that the installation is under the control of such a qualified operator, other persons may use the radiotelephone service (see Section **25**).

DOCUMENTS TO BE CARRIED

138 The documents to be carried by ship stations are shown in Section **22**.

CONTROL OF COMMUNICATIONS

139 Except in the case of distress, coast stations control the communications in their particular areas. In order that traffic may be exchanged efficiently, all instructions given by coast stations should be complied with at once. Ship stations must not interfere with the working of coast stations.

In the case of distress, the vessel in distress controls communications unless it hands over control to another station, e.g. to a coast station (see Section **180**).

UNAUTHORISED TRANSMISSIONS AND BROADCAST TRANSMISSIONS

140 The attention of operators is called to the terms of the ship radio licence which permit a vessel whilst at sea to communicate by radio only with other ships at sea and with aircraft stations and coast stations. A ship station in harbour may not communicate with other ship stations but only with coast stations, subject to the provisions of Section **15**. Except in the case of emergency involving safety, the use of the transmitting equipment for any other purpose is strictly forbidden.

Messages must not be transmitted to an address on shore except through a coast station. The broadcasting of messages intended for reception at addresses on shore is strictly forbidden.

Operators are also reminded that it is forbidden (a) to exchange unnecessary signals of any kind, (b) to use the installation for other than public correspondence and communications on the business of the ship, (c) to use offensive language.

Use of the ship station except in accordance with the licence is an offence under the Wireless Telegraphy Acts, 1949 to 1967, and may result in the revocation of the licence, or in the institution of legal proceedings, or in both. It may also lead to the suspension with a view to revocation of the operator's authority to operate a radio station on board ship.

PART 2—USE OF FREQUENCIES

GENERAL

141 The frequencies for use by United Kingdom coast stations are shown in the List of Coast Stations.

A ship may use only those frequencies which are shown on the ship licence; the use of any other frequency is strictly forbidden.

It is important that frequencies are used only for the purpose for which they are shown; e.g. a frequency shown as for use by ships for communicating only with coast stations must not be used for communicating with other ships.

Frequencies on which single sideband emissions are sent are designated by the carrier frequency, even if it is suppressed at the transmitter, as in the J3E mode of operation.

BANDS BETWEEN 1605 and 4000 kHz

General Provisions

142 (1) All ship stations equipped with radiotelephony apparatus to work in the authorised bands between 1605 and 2850 kHz must be able to:

(a) send Class H3E emissions on a carrier frequency of 2182 kHz and receive Class H3E emissions on a carrier frequency of 2182 kHz, except for apparatus provided solely for distress, urgency and safety purposes;

(b) send, in addition, R3E* emissions and J3E emissions on at least two working frequencies;
(c) receive, in addition, R3E* and J3E emissions on all other frequencies necessary for their service.

The provisions of (b) and (c) do not apply to apparatus provided solely for distress, urgency and safety purposes.

Working frequencies for use by ship stations in these bands have been allotted to countries in accordance with a basic international frequency plan. A certain number are assignable for each United Kingdom ship for specific purposes, viz, ship to coast station working, intership working, etc, according to the category of the ship, i.e. fishing vessel and other ships.

Additionally, in Region I (roughly the European and African areas), the following frequencies are available for common international use by ships making international voyages:–

(i) ship-shore working frequencies,
—carrier frequency 2046 kHz (assigned frequency 2047.4 kHz) and carrier frequency 2049 kHz (assigned frequency 2050.4 kHz) for Class R3E and J3E emissions;
(ii) intership frequencies,
—carrier frequency 2053 kHz (assigned frequency 2054.4 kHz) and carrier frequency 2056 kHz (assigned frequency 2057.4 kHz) for Class R3E and J3E emissions;

These frequencies may also be used as additional ship-shore frequencies.

The frequencies listed in (i) and (ii) must not be used for working between stations of the same nationality.

Distress

(2) The carrier frequency 2182 kHz is an international distress frequency for radiotelephony. It is used for this purpose by ship, aircraft, survival craft stations and emergency position-indicating radiobeacons using frequencies in the bands between 1605 and 4000 kHz when requesting assistance from the maritime services. For particulars of this use see Chapter VII.

If a distress message on 2182 kHz has not been acknowledged, the radiotelephone alarm signal, whenever possible followed by the distress call and message, may be transmitted again on a carrier frequency of 4125 kHz or 6215.5 kHz as appropriate.

*R3E is not essential from 15 January 1985.

Call and Reply

(4) The frequency 2182 kHz* may also be used only

(a) for call and reply;
(b) by coast stations to announce the transmission, on other frequencies, of traffic lists.

To facilitate the reception of distress calls all transmissions on the frequency 2182 kHz must be kept to a minimum.

Before transmitting on 2182 kHz, stations, other than those in distress, should listen on this frequency for a reasonable period to make sure that no distress traffic is being sent.

Watch

(5) Coast stations which are open to public correspondence and which form an essential part of the coverage of the area for distress purposes maintain a listening watch on 2182 kHz during their hours of service.

United Kingdom coast stations keep a continuous watch on 2182 kHz and also keep watch on 2381 kHz from 9 a.m. to 5 p.m. local time Monday to Saturday (see (7)).

Ship stations should keep the maximum practicable watch on 2182 kHz (especially during the silence periods) for the reception of the radiotelephone alarm signal and the navigational warning signal as well as distress, urgency and safety signals. During their hours of public correspondence service they should as far as possible listen for calls on 2182 kHz.

Frequencies to be used for Call and Reply in the Public Correspondence Service

(6) A radiotelephone ship calling a coast station for normal public correspondence traffic should use for the call, in order of preference:

(a) a working or national calling frequency on which the coast station is keeping watch;
(b) the frequency 2182 kHz;
(c) in Region 1 and 3 and in Greenland, the carrier frequency 2191 kHz (assigned frequency 2192.4 kHz) when a carrier frequency of 2182 kHz is being used for distress.

(7) Details of the arrangements for calling United Kingdom coast

*Whatever the class of emission used, the frequency 2182 kHz always designates the carrier frequency of the emission.

stations, and for calling foreign coast stations and other ships, are as follows:

(a) *Ships to United Kingdom Coast Stations.* During the hours indicated in the List of Coast Stations, ships calling United Kingdom coast stations for normal public correspondence traffic purposes should make the call on 2381 kHz. Outside these hours the call should be made on 2182 kHz unless otherwise indicated.

The coast station will at all times reply on 1792 kHz.

All coast stations will use 2182 kHz to call individual ships for whom they might have traffic on hand between traffic list times.

When contact is established, agreement should be reached for transfer to appropriate working frequencies for the exchange of traffic.

(b) *Ships to Foreign Coast Stations.* Ships should call a foreign coast station as shown in 6(a) and (b). The coast station will reply on 2182 kHz unless the ship indicates that it will listen for the reply on one of the coast station's other frequencies or special answering arrangements are given in the List of Coast Stations.

Normally foreign coast stations will call United Kingdom ships on 2182 kHz and the ship should reply on the same frequency unless another frequency is indicated by the calling station.

When contact is established, agreement should be reached for transfer to working frequencies for the exchange of traffic.

(c) *Ship Station to Ship Station.* A ship station should normally call another ship station on 2182 kHz and the ship station called should reply on the same frequency unless reply on another frequency is indicated by the calling ship station. Upon establishing contact transfer should be made to working frequencies for the exchange of traffic. However, in areas of high traffic density (such as around the coasts of the United Kingdom and in the North Sea) every effort should be made by ships to use an intership frequency for the call and reply when prior arrangements to do so can be made.

Transmission of Public Correspondence Traffic

(8) Every station of the maritime mobile service should transmit its traffic (radiotelephone calls, radiotelegrams, etc.) on one of its working frequencies in the band in which the call has been made.

The use of the international calling frequency, 2182 kHz, is forbidden for traffic except distress traffic.

(a) *Ships to United Kingdom Coast Stations.* When communication is established, the ship station must transfer from 2381 kHz or 2182 kHz as the case may be, to a working frequency for the exchange of traffic. To facilitate this, the ship station, when offering traffic to or answering a call from a United Kingdom coast station, should indi-

cate which working channels it has available. (See example in Section **151**.)

The coast station will then indicate the working frequency it will use and the working channel to be used by the ship station. Thereafter each station will listen for the exchange of traffic on the working frequencies agreed.

(b) *Ships to Foreign Coast Stations.* When communication is established the ship station must transfer to a working frequency for the exchange of traffic.

The coast station will indicate the working frequency it proposes to use and the ship station will indicate its agreement.

The ship station may offer, for class R3E and J3E emissions:

(a) the international ship to shore working frequencies
—carrier frequency 2046 kHz (assigned frequency 2047.4 kHz);
—carrier frequency 2049 kHz (assigned frequency 2050.4 kHz),

(b) the international intership/ship-to-shore frequencies
—carrier frequency 2053 kHz (assigned frequency 2054.4 kHz);
—carrier frequency 2056 kHz (assigned frequency 2057.4 kHz);

(c) a frequency that has been specially agreed between the United Kingdom and the Administration concerned for working to the coast stations of a particular country;

(d) one of its normal national working frequencies.

When the frequency to be used is agreed by the coast station, each station from then onwards listens on the working frequency for the exchange of traffic.

BANDS BETWEEN 4 AND 23 MHz

General

143 (1) In the exclusive maritime mobile radiotelephone bands between 4 and 23 MHz, frequencies have been provided for:

(a) use by ship stations for calling purposes;

(b) use by coast stations for calling purposes;

(c) duplex radiotelephony (these frequencies are arranged in internationally agreed pairs);

(d) use by coast stations and ship stations for radiotelephony on a simplex basis.

Details are given in the Manual for Use by the Maritime Mobile Service published by the I.T.U., Geneva.

In the bands 4000–4063 kHz and 8100–8195 kHz shared by the maritime mobile and fixed services, frequencies have been provided

(a) between 4000 and 4063 kHz for use by ship stations for

(i) supplementing the exclusive ship-shore channels for duplex operation,

(ii) intership simplex and crossband operation,
(iii) crossband working with coast stations on channels in the band 8100–8195 kHz,
(iv) duplex operation with coast stations working in the band 4438–4650 kHz.

(b) between 8100 and 8195 kHz for use by coast and ship stations for
(i) supplementing the exclusive ship-shore and shore-ship channels for duplex operation,
(ii) intership simplex and crossband operation,
(iii) crossband working with ship stations on channels in the 4000–4063 kHz band,
(iv) ship-shore or shore-ship simplex operation.

The carrier frequencies 4125.0 kHz and 6215.5 kHz are used to supplement 2182 kHz for distress and safety purposes and for call and reply. These frequencies are also used for distress and safety traffic by radiotelephony.

Search and Rescue

(2) The frequency 5680 kHz may be used for intercommunication between mobile stations engaged in co-ordinated search and rescue operations, including communication between these stations and participating land stations.

Call, Reply and Traffic

(3) The frequencies to be used in these bands for the establishment of communication and the handling of radiotelephone calls with the coast stations of any particular country, together with the watchkeeping hours maintained by them, are shown in the List of Coast Stations.

In many cases initial contact with coast stations may be established by radiotelegraphy in the bands appropriate for that system (see Chapter IV), and transfer made direct to radiotelephone working frequencies.

The ship calling frequencies must not be used for traffic purposes.

BANDS BETWEEN 156 and 174 MHz

General

144 (1) In the bands between 156 and 174 MHz international provision is made for maritime public correspondence, port operation and ship movement services, intership working and for communications between ship or coast stations and helicopters or light aircraft engaged in predominantly maritime support operations.

In addition to radiotelephony, high-speed data and facsimile transmissions and narrow-band direct-printing telegraphy are permitted subject to the conditions of Appendix 18 of the I.T.U. Manual for Use by the Maritime Mobile Service.

Particulars of the frequencies in use at each station, and the purposes for which they may be used, are published in the List of Coast Stations, and notices regarding port operation services are issued by port authorities.

All ship stations equipped with radiotelephony to operate in these services in the authorised bands between 156 and 174 MHz must be able to send and receive Class G3E emissions on:

(a) the distress, safety and calling frequency 156.80 MHz (Channel 16);
(b) the primary intership frequency 156.30 MHz (Channel 6);
(c) all the frequencies necessary for their service.

The frequency channels available for these services are, by international agreement, designated by numbers, and, as far as possible, these designations should be used, e.g. 156.80 MHz is "Channel 16" and 156.30 MHz is "Channel 6".

The frequency 156.80 MHz is the international distress, safety and calling frequency for radiotelephony for stations of the maritime mobile service when using frequencies in the authorised bands between 156 and 174 MHz. It is used for the distress signal and call and distress traffic, for the urgency signal, urgency traffic and safety signal. Safety messages shall be transmitted where practicable on a working frequency after a preliminary announcement on 156.80 MHz. However, ship stations which cannot transmit on 156.80 MHz should use any other available frequency on which attention might be attracted.

The frequency 156.80 MHz may also be used:

(a) by coast and ship stations for call and reply;
(b) by coast stations to announce the transmission on another frequency of traffic lists and important maritime information:
(c) by coast and ship stations for selective calling.

Watch

(2) Coast stations conducting public correspondence radiotelephone services and coast stations in the port operation and ship movement services normally keep permanent watch on 156.80 MHz (Channel 16) during their hours of service.

Ship stations should, where practicable, maintain watch on 156.80 MHz (Channel 16) when within the service areas of these stations. Ship stations fitted only with VHF radiotelephone equipment operating in the authorised bands between 156 MHz and 174 MHz should maintain watch on 156.80 MHz when at sea.

Ship stations, when in communication with a port station may, on an exceptional basis and subject to the agreement of the Administration concerned, continue to maintain watch on the appropriate port operations frequency only, provided that watch on 156.80 MHz is being maintained by the port station.

Ship stations, when in communication with a coast station in the ship movement service and subject to the agreement of the Administrations concerned, may continue to maintain watch on the appropriate ship movement service frequency only, provided the watch on 156.80 MHz is being maintained by that coast station.

Public Correspondence Service

(3) As a general rule, coast stations use 156.80 MHz (Channel 16) for calling and the reply is made on the same frequency. However, coast station to ship calling may be conducted on a working channel or on a two-frequency calling channel.

Except for distress, urgency or safety communications, when 156.80 MHz should be used, ship to coast station calling should, whenever possible, be made on a working channel or on a two-frequency calling channel.

Upon establishment of communication on the calling frequency, the calling station should indicate the working channel which it is proposed to use; when this is agreed both stations transfer to their working channels for the exchange of traffic.

Port Operations and Ship Movement Services

(4) In the bands between 156 MHz and 174 MHz coast station to ship calling should, as a general rule, be made on 156.80 MHz. However, coast station to ship calling may be conducted on a working channel. Except for distress, urgency or safety communications, when 156.80 MHz should be used, ship to coast station calling should be made on a port operations or ship movement working frequency indicated in heavy type in the List of Coast Stations.

When making a call to a port operations coast station the ship station should indicate the particular service required (such as navigational information, docking instructions, etc.) and the port operations coast station will indicate the appropriate working channel to be used in the service required.

When contact has been established between a coast station in the ship movement service and a ship station, the coast station will indicate the appropriate working channel to be used for the exchange of traffic.

Intership Working

(5) Contact between ship stations may be established on 156.80 MHz (Channel 16) and transfer made to appropriate intership working channels for the exchange of traffic.

Pilot Service

(6) A radiotelephone ship station calling a station providing pilot service should use for the call, in order of preference:

(a) an appropriate channel in the bands between 156 and 174 MHz;
(b) a working frequency in the bands between 1605 and 4000 kHz;
(c) the frequency 2182 kHz and then only to determine the working frequency to be used.

PART 3—GENERAL PROCEDURE

GENERAL

145 The procedures outlined in the following sections are generally applicable in all the frequency bands in which maritime radiotelephone public correspondence services are available.

146 A list of abbreviations indicating words and phrases in common use is given in Appendix 2. Only these abbreviations are to be used in the maritime mobile service.

CONTROL OF WORKING

147 Except in the case of distress, urgency or safety, communications between a ship and a coast station are controlled by the coast station. Ship stations must comply with instructions given by the coast station in all questions relating to the order and time of transmission, the frequencies to be used, and the duration and suspension of working.

In communications between ship stations the ship station called controls the working, but if a coast station finds it necessary to intervene in this working both ship stations must comply with any instruction given by the coast station.

Before transmitting, a station should first listen to make sure that its emissions will not interfere with any communications already in progress; if such interference is likely, the station should await an appropriate break in those communications.

However, if after these precautions have been taken the emission does cause interference, the station causing the interference must comply with any request to suspend its transmission from the station controlling the communications in progress. The request should contain an indication of the duration of the suspension time imposed.

Apart from distress, urgency or safety communications, calling and signals preparatory to the exchange of traffic must not exceed one minute when using 2182 kHz or 156.8 MHz.

CALLING PROCEDURE

148 For making the call, the calling station must use a frequency on which the station called keeps watch.

As a general rule, it rests with the ship station to call and establish communication with a coast station. However, a coast station having traffic for a ship station may call that station if it has reason to believe that the ship is within its service area and is keeping watch.

(See also Section **152**).

The call consists of:

—the name or other identification of the stations called, not more than three times;

—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—the name or other identification of the calling station, not more than three times.

However, in the bands between 156 and 174 MHz when the conditions for establishing contact are good, the call described above may be replaced by:

—the call sign of the station called, once;

—the words THIS IS (or DE spoken as DELTA ECHO in the case of language difficulties);

—the call sign or other identification of the calling station, twice.

When contact is established, the name or other identification may thereafter be transmitted once only.

When a station called does not reply, the call may be repeated at three-minute intervals. However, before renewing the call, the calling station must first ascertain that further calling is unlikely to cause interference to other communications in progress and that the station called is not in communication with another station.

In areas where reliable VHF communication with a called coast station is practicable, the calling ship station may repeat the call as soon as it is ascertained that traffic has been terminated at the coast station.

The provisions relating to the intervals between calls are not applicable to a station in the maritime mobile service operating under conditions involving distress, urgency or safety.

In the bands between 1605 and 4000 kHz when a United Kingdom coast station cannot answer calls because it is already engaged in traffic working, it makes an announcement to this effect on the appropriate answering frequency (see Section **142**). A ship station hearing such an

announcement must cease calling that coast station and must not renew the calling until invited to do so by the coast station, or until it becomes evident that the coast station is no longer engaged in traffic working. It may, however, call any other United Kingdom coast station known to be within its range and free to answer calls.

The call should be followed by an indication of the working frequency channel it is proposed to use for the exchange of traffic and whether more than one radiotelegram or radiotelephone call is to be transmitted.

When a coast station receives calls from several ship stations at practically the same time it will decide the order in which they may conduct working. Its decision will be based on the priority of the traffic to be cleared and the need to clear the greatest possible amount of traffic from each ship.

Ship stations must not radiate a carrier wave between calls.

PROCEDURE FOR REPLYING TO CALLS

149 For transmitting the reply to a call, the station called uses the frequency upon which the calling station keeps watch, unless the calling station has specified another frequency for the reply.

The reply to a call consists of:

—the name or other identification of the calling station, not more than three times;

—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—the name or other identification of the station called, not more than three times.

If the station called is unable to accept traffic immediately, it should reply to the call as indicated above, followed by the words "WAIT . . . . . MINUTES", or, if other ships are waiting, "YOUR TURN IS NUMBER . . . . .". If the probable duration of the waiting time exceeds ten minutes the reason for the delay should be given.

When the called station is ready for working it will call in the form shown in Section **148** and the calling station will reply as shown above.

When a station receives a call without being certain that it is intended for it, it must not reply until the call has been repeated and understood.

When a station receives a call which is intended for it, but is uncertain of the identification of the calling station, it replies as follows:

—"STATION CALLING . . . . ." (insert name or other identification of the called station), not more than three times;

—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—the name or other identification of the station called, "REPEAT YOUR CALL, OVER".

AGREEMENT ON THE FREQUENCY CHANNEL TO BE USED FOR WORKING

150 If the station called is in agreement with the working channel proposed by the calling station (see Section **149**) it transmits:

—the reply to the call (see Section **149**);

—an indication that from that moment onwards it will listen on the working channel announced by the calling station;

—an indication of the working frequency channel it will itself use;

—any other necessary indication;

—the word "OVER" (inviting the calling station to reply).

If the station called is not in agreement with the working frequency channel proposed, it indicates an alternative working channel for use.

When agreement is reached both stations then continue communications on the working channels.

EXAMPLE OF CALL, REPLY AND TRANSFER TO WORKING FREQUENCY CHANNEL

151 The ship "KINGSTON JADE" wishes to clear three radiotelegrams (or radiotelephone calls) through Humber Radio.

After ascertaining that it will not interfere with any communications in progress, the ship station signals on the calling frequency:

"HUMBER RADIO (up to three times),
THIS IS,
KINGSTON JADE (up to three times),
I HAVE THREE RADIOTELEGRAMS (or RADIOTELEPHONE CALLS) FOR YOU,
CHANNEL 3 or 6,
OVER".

The coast station is ready to receive traffic on Channel 3 and to use its working frequency 2684 kHz replies:

"KINGSTON JADE (up to three times), THIS IS HUMBER RADIO, CHANNEL 3, LISTEN 2684 kHz, OVER".

The ship now transfers to Channel 3 (2104 kHz) and the coast station to 2684 kHz.

The ship replies on Channel 3:

"HUMBER RADIO, THIS IS KINGSTON JADE, HOW ARE YOU RECEIVING ME, OVER".

The coast station replies:

"KINGSTON JADE, THIS IS HUMBER RADIO, RECEIVING YOU WELL, GO AHEAD WITH YOUR TRAFFIC, OVER".

The ship replies:

"HUMBER RADIO, THIS IS KINGSTON JADE . . . . .", continuing by sending his traffic (or arranging particulars of radiotelephone calls).

COAST STATION TRAFFIC LISTS

152 Coast stations normally call ship stations in the form of "Traffic Lists", consisting of the names or other identifications of all ships for which traffic is held by the coast station. These lists are transmitted on the normal working frequency of the station at intervals of not less than two hours; the times and working frequencies for each coast station are shown in the List of Coast Stations.

These traffic lists are usually preceded by an announcement on the calling frequency in the following form:

—HELLO ALL SHIPS or CQ (spoken as CHARLIE QUEBEC) not more than three times;

—THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—. . . . . RADIO (not more than three times);

—LISTEN FOR MY TRAFFIC LIST ON . . . . . kHz.

However, in the bands between 156 and 174 MHz when the conditions for establishing contact are good, the call described above may be replaced by:

—HELLO ALL SHIPS or CQ (spoken as CHARLIE QUEBEC), once;

—THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—. . . . . RADIO (twice);

—LISTEN FOR MY TRAFFIC ON CHANNEL . . . .

Ship stations should, as far as possible, listen to the traffic lists transmitted by coast stations, and upon hearing their name or other identification in such a list must reply to the coast station as soon as they can do so. If the coast station cannot send the traffic immediately it will indicate the turn or the probable waiting time (see Section **149**).

SIGNAL FOR END OF WORK

153 The end of work between two stations is indicated by each station adding the word "OUT" (or VA spoken as VICTOR ALPHA in case of language difficulties) at the end of its last reply.

FAILURE TO ESTABLISH COMMUNICATION WITH A UNITED KINGDOM COAST STATION

154 When a ship station passes within the service area of a United Kingdom coast station and is prevented for any reason from communicating with that station, it is the responsibility of the ship station to secure the redirection of any traffic held for the ship by that coast station, through the first United Kingdom coast station with which communication is established.

INFORMATION TO BE FURNISHED BY A SHIP STATION (TR)

155 In order to facilitate the routeing of traffic, ship stations should furnish coast stations with particulars of their voyages. This information, which is given under the authority of the master or person responsible for the ship, should be prefixed by the abbreviation "TR" (spoken as TANGO ROMEO). The information should be supplied to coast stations in the United Kingdom and the Irish Republic without waiting for a request to do so.

The TR comprises:

—the name of the ship,

—the approximate distance, in nautical miles, and bearing of the ship from the coast station or a known geographical location, or the position in latitude and longitude,

—the next port of call.

Fishing vessels should report their position to the nearest coast station:

(a) on leaving and arriving in port;

(b) on passing from the area of one coast station to another.

In the absence of any formal position reporting systems, *fishing vessels* should also report:

(c) on arrival at the fishing grounds;

(d) after proceeding a distance of 50 miles or more to another position within the fishing grounds or any other change of intention.

Failure of the radio equipment on board a fishing vessel should be reported, together with the position and proposed movements, to the owners or their representatives ashore by requesting any vessel within visual contact range to pass the report through the nearest coast station.

CLOSURE OF SERVICE ON SHIP STATIONS

156 Ship stations whose service is not continuous must not close before:

(a) finishing all operations resulting from a distress call, urgency or safety signal;

(b) exchanging, as far as practicable, all traffic originating in or destined for coast stations within their service area, or for other ships known to be within their area.

ARRIVAL IN, AND DEPARTURE FROM, PORT

157 Any ship station arriving at an intermediate or terminal port and about to close its service, must:

(a) notify accordingly the nearest coast station, and if appropriate, any other coast station with which it generally communicates;

(b) not close until after the disposal of traffic on hand, unless this conflicts with the regulations in force in the country of the port of call.

Upon departure from port the ship station must notify the coast stations concerned as soon as its service reopens.

TRANSMISSION OF TEST SIGNALS

158 When it is necessary for a ship station to send signals, for testing or adjustments, which are liable to interfere with the working of neighbouring coast stations, the consent of these stations must be obtained before such signals are sent.

Test signals, either for the adjustment of a transmitter before making a call or for the adjustment of a receiver, must not be continued for more than ten seconds, and must include the name or other identification of the station emitting the signals. The name or other identification must be spoken slowly and distinctly.

Any signals sent for testing shall be kept to a minimum, particularly on the frequencies identified for the maritime mobile and maritime mobile-satellite service for distress and safety purposes.

It is not permitted to send tests of the radiotelephone alarm signal on the frequency of 2182 kHz and the frequency 156.80 MHz, except where emergency equipment which can operate only on these frequencies is involved in which case measures shall be taken to prevent radiation. Measures shall also be taken to prevent radiation from radiotelephone alarm tests carried out on frequencies other than 2182 kHz and 156.80 MHz.

A listening watch must always be set on the appropriate frequency before testing in order to guard against interfering with any transmission that might be in progress.

PORT OPERATIONS AND SHIP MOVEMENT SERVICES

159 Communications on port operations channels must be restricted to those relating to operational handling, the movement and the safety of ships and, in emergency, to the safety of persons. Public correspondence messages are excluded from this service.

Communications on ship movement channels must be restricted to those relating to the movement of ships. Public correspondence messages are excluded from this service.

"ON-BOARD" COMMUNICATIONS

160 On-board communications are intended for use for internal communications on board a ship, or between a ship and its lifeboats and liferafts during lifeboat drills or operations, or for communication within a group of vessels being towed or pushed, as well as for line handling and mooring instructions.

Calls for internal communications on board ship when in territorial waters consist of:

(a) From the master station:
—the name of the ship followed by a single letter (ALFA, BRAVO, CHARLIE, etc., indicating the sub-station), not more than three times;
—the words THIS IS;
—the name of the ship followed by the word CONTROL;

(b) From the sub-station:
—the name of the ship followed by the word CONTROL, not more than three times;
—the words THIS IS;
—the name of the ship followed by a single letter (ALFA, BRAVO, CHARLIE, etc., indicating the sub-station).

PART 4—TRANSMISSION OF RADIOTELEGRAMS

GENERAL

161 Radiotelegrams must be transmitted in the order of priority given in Section **20**; radiotelegrams of the same order of priority should be transmitted in the progressive order of their times of handing-in.

In communications between a coast station and a ship station, the coast station decides the order of working; in communications between two ship stations the decision rests with the ship which is called.

In routeing radiotelegrams, a ship station should, as a general rule, give preference to the coast station established on the territory of the country of destination, or the country likely to provide the most suitable transit route for radiotelegrams.

If a ship station is unable to dispose of a radiotelegram direct to a coast station it may relay it via another ship station free of charge provided the latter consents. The ship relaying the radiotelegram disposes of it in the same manner as if it originated with itself, noting at the end of the preamble that it has been relayed "Via . . . " (name of relaying ship).

Radiotelegrams from ships must be numbered in a separate daily series to each station. Number 1 is given to the first radiotelegram sent each day, commencing at 0001 U.T.C. to each separate station. The same series of numbers is used for radiotelegrams whether sent by radiotelephony, radiotelegraphy, or radiotelex.

In case of subsequent enquiry any particular radiotelegram may be referred to by its number in a series.

For the formation and explanation of the different parts of a radiotelegram see Section **31**.

FORM OF TRANSMISSION OF A RADIOTELEGRAM

162 When communication has been established between two stations on working frequencies, and working procedure agreed, the transmission of a radiotelegram is preceded by:

—the name, call sign or other identification of the station called;

—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—the name, call sign or other identification of the calling station.

The transmission of a radiotelegram is commenced by the spoken words "Radiotelegram begins" and is terminated by the spoken words "Radiotelegram ends".

The radiotelegram must be sent in the following order.

—Commencing signal ("Radiotelegram begins").

—Prefix (if any).

—Name of the ship of origin (office of origin if originating on land).

—Serial number of radiotelegram.

—Number of words.

—Date.

—Time of handing-in.

—Service instructions, such as routeing instructions (if any).

—The accounting authority identity code.

—Supplementary instructions, such as "Reply Paid" (if any).

—Address.

—Text; (if no signature follows send finishing signal here).

—Signature (if any).

—Finishing signal ("Radiotelegram ends").

A radiotelegram should be sent slowly, allowing sufficient time for it to be copied at the receiving station, and each word spoken distinctly.

If the radiotelegram contains figures, secret language, difficult or exceptional words, these should be repeated at the end to make sure of correct reception, if necessary, by using the spelling table shown in Appendix 2, or the whole radiotelegram may be repeated if considered desirable. Such repetition should be given after the finishing signal ("Radiotelegram ends") and should be preceded by the spoken words "I REPEAT".

Where figures occur in the address or text of a radiotelegram they should be spoken separately and should be preceded by the words "In figures", e.g. "42 crans" should be spoken "IN FIGURES, FOUR TWO CRANS", or "IN FIGURES KARTEFOUR BISSOTWO CRANS".

If a number is written in letters it should be spoken as it is written and preceded by the words "In letters", e.g. "forty-two crans" should be spoken "IN LETTERS FORTYTWO CRANS".

If the receiving station requires the repetition of the whole or any part of the radiotelegram it will request the sending station to repeat what is required.

If the receiving station is doubtful about the accuracy of the whole or any part of the radiotelegram it may repeat it back to the sending station, preceding the repetition with the spoken words "REPEAT FOR CHECK", followed by the repetition. The sending station should check this repetition carefully and if it is correctly repeated should indicate this to the receiving station by the word "CORRECT".

ACKNOWLEDGMENT OF RECEIPT

163 When the receiving station has received the radiotelegram correctly it replies:

—name, call-sign or other identification of the sending station;
—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
—name, call-sign or other identification of the receiving station;
—"Your No. . . . received, over" (or R spoken as ROMEO . . . (number), K spoken as KILO in case of language difficulties).

A sending station must not consider a radiotelegram as cleared and disposed of until a proper acknowledgment of receipt from the receiving station has been duly obtained.

EXAMPLE OF TRANSMISSION OF A RADIOTELEGRAM

164 The ship "KINGSTON JADE" has established communication on working frequencies with Humber Radio, and has advised that station that it wishes to send one radiotelegram.

Humber Radio replies:

"KINGSTON JADE. THIS IS HUMBER RADIO—SEND YOUR RADIOTELEGRAM—OVER".

"Kingston Jade" replies:

"HUMBER RADIO, THIS IS KINGSTON JADE—RADIOTELEGRAM BEGINS—:

Prefix (if any)—FROM "KINGSTON JADE"—NUMBER 2—NUMBER OF WORDS 8—DATE 14TH—TIME 1130—ADDRESS—SMITH GRIMSBY—TEXT—EXPECT DOCK FRIDAY NOON TIDE—SIGNATURE—MASTER—RADIOTELEGRAM ENDS—OVER".

Humber Radio replies:

"KINGSTON JADE, THIS IS HUMBER RADIO—YOUR NUMBER 2 RECEIVED—OUT".

"Kingston Jade" replies:

"HUMBER RADIO, THIS IS KINGSTON JADE—OUT".

(A slight pause should be made where indicated by dashes.)

Communication between the two stations is now finished.

PROCEDURE WHEN COMMUNICATION BECOMES DIFFICULT

165 When communication between a ship station and a coast station becomes difficult, every effort should be made to complete the radiotelegram in course of transmission. The receiving station may request not more than two repetitions of a radiotelegram of which the reception is doubtful. If this triple transmission is ineffective, the radiotelegram is kept on hand in case a favourable opportunity for completing its transmission occurs. If it is doubtful whether communication can be re-established within twenty-four hours, e.g. in the case of a ship station passing out of the service area of a coast station, the sender should be advised immediately of the reason for the non-transmission of the radiotelegram. The sender may then request:

—that the radiotelegram be transmitted through another coast station; or

—that the radiotelegram be held until it can be transmitted without additional charge; or

—that the radiotelegram be cancelled.

When a ship station subsequently transmits a radiotelegram to the coast station which incompletely received it, care should be taken to make known to the coast station that its transmission had previously been commenced in order that additional charges do not become involved. This must be indicated by adding the word "ampliation" in the preamble of the radiotelegram. If, however, the radiotelegram is subsequently transmitted to another coast station of the same Administration or private enterprise, the new transmission must bear the service instruction "ampliation via . . . " (insert the name of the coast station to which the radiotelegram was transmitted in the first instance) in the preamble of the radiotelegram.

A station which has received a radiotelegram and has been unable to acknowledge its receipt in the usual way, must take the first favourable opportunity to give such acknowledgment. When this acknowledgment cannot be given direct to the station that transmitted the radiotelegram, it may be forwarded by service advice through another ship, or through another coast station of the same administration. In any case no additional charge must result.

PREAMBLE FOR INLAND TRANSMISSION FROM COAST STATIONS

166 When a coast station sends over the inland telecommunication network a radiotelegram received from a ship station, it inserts after the name of the ship of origin the name of the coast station and the name of the last ship which acted as intermediary (should any re-transmission have occurred.)

In order to avoid any confusion with a telegraph office or a fixed station of the same name, the coast station may, if desirable, complete the indication of the name of the ship of origin by the word "ship" placed before the name of the station of origin.

PART 5—ESTABLISHMENT OF RADIOTELEPHONE CALLS

GENERAL

167 For particulars of the types of radiotelephone call available in the public correspondence service between ship stations and subscribers on land see Section **74**.

Stations taking part in this public correspondence service must be equipped with devices for switching from transmission to reception as rapidly as possible and vice versa. The service on ship stations should, as far as possible, be operated on a duplex basis.

SETTING UP A RADIOTELEPHONE CALL

168 When communication has been established between a ship station and a coast station on working frequencies and the ship station wishes to establish a call to a subscriber on land, the ship station signals:

—the name or other identification of the coast station;
—the words THIS IS or DE spoken as DELTA ECHO in case of language difficulties;
—the name or other identification of the ship station;
—"I HAVE A CALL FOR . . . (telephone exchange and number, spoken twice), OVER".

The coast station will reply requesting the ship station to "STAND BY" and will proceed to establish connection with the telephone network as quickly as possible. The ship station will continue to listen on the coast station working frequency until the required telephone subscriber is secured.

When the subscriber is secured, the coast station will say to the ship station "YOU ARE CONNECTED TO . . . (telephone exchange and number), GO AHEAD". The ship station will then continue with the call to the land subscriber.

If for any reason the connection cannot be quickly established, the coast station will inform the ship station accordingly. The ship station will then either continue to listen until an effective connection can be established or call the coast station later at a mutually agreed time.

The coast station will decide the duration of the call for charging purposes and will normally inform the ship station of that duration immediately the conversation with the land subscriber ceases.

CHAPTER VII

Distress, Urgency and Safety Communications by Radiotelephony

GENERAL

169 An extensive international organisation exists for assisting vessels in distress. By taking part in this organisation and following the procedure laid down in this chapter, all ships can help to ensure that such vessels obtain assistance without delay. However, nothing in this procedure prevents:

(a) a ship in distress from making use of any means at its disposal to attract attention, make known its position and obtain help;

(b) ships engaged in search and rescue operations, in exceptional circumstances, from making use of any means at their disposal to assist a ship in distress.

The radiotelephone alarm signal, the distress call and the distress message shall be sent only on the authority of the master or person responsible for the ship.

In cases of distress, urgency and safety, transmissions must be made slowly and distinctly, each word being clearly pronounced. Figures and bearings should be repeated. The Abbreviations Phonetic Alphabet and Figure Code in Appendix 2 should be used where applicable and, where language difficulties exist, the use of the International Code of Signals is also recommended.

Extreme care should be taken by all stations taking part in distress communications to ensure that their transmissions do not cause harmful interference to the other stations engaged, especially to the transmissions of the station actually in distress.

DISTRESS FREQUENCY

170 (1) The carrier frequency 2182 kHz is an international distress frequency for radiotelephony. It must be used for this purpose by ship, aircraft and survival craft stations and by emergency position-indicating radiobeacons using frequencies in the authorised bands between 1605

and 4000 kHz when requesting assistance from the maritime services. It is used for the distress call and distress traffic, for signals of emergency position indicating radiobeacons, for the urgency signal and urgency messages, the navigational warning signal and for the safety signal. Safety messages must be transmitted, where practicable, on a working frequency after a preliminary announcement on 2182 kHz. The class of emission to be used for radiotelephony on 2182 kHz shall be A3E or H3E. From 15 January 1985, use of class A3E will not be permitted except by apparatus provided solely for distress, urgency and safety purposes.

Also from 15 January 1985:

the class of emission J3E may be used for the exchange of distress traffic on 2182 kHz following the acknowledged reception of a distress call using digital selective calling techniques on 2187.5 kHz taking into account that other shipping in the vicinity may not be able to receive this traffic;

where coast stations keep a watch on 2182 kHz for receiving class J3E emissions as well as class A3E and H3E emissions, ship stations may communicate with them using class J3E emissions;

if a distress message on 2182 kHz has not been acknowledged, the radiotelephone alarm signal, whenever possible followed by the distress call and message, may be transmitted again on a carrier frequency of 4125 kHz or 6215.5 kHz as appropriate.

United Kingdom and many foreign coast stations keep continuous watch on 2182 kHz.

In the interests of safety of life at sea, all ships fitted solely with radiotelephony should keep the maximum watch practicable on 2182 kHz. When a continuous watch is not practicable, ships should, as far as possible, listen on 2182 kHz twice each hour for three minutes commencing at the hour and half hour. During these three-minute periods, all transmissions on 2182 kHz, except distress, urgency and safety communications, must cease.

(2) The frequency 156.80 MHz is the international distress frequency for radiotelephony for stations of the maritime mobile service when using frequencies in the authorised bands between 156 and 174 MHz. It is used for the distress signal and call and distress traffic, for the urgency signal, urgency traffic and the safety signal. Safety messages shall be transmitted where practicable on a working frequency after a preliminary announcement on 156.80 MHz. The class of emission to be used for radiotelephony on the frequency 156.80 MHz shall be G3E.

United Kingdom and many foreign coast stations keep continuous watch on 156.80 MHz. Ship stations should, where practicable, maintain watch on 156.80 MHz when within the service area of a coast station providing international maritime mobile radiotelephone service in the band 156–174 MHz. Ship stations fitted only with VHF radiotelephone equip-

ment operating in the authorised bands between 156 and 174 MHz should maintain watch on 156.80 MHz, when at sea.

ALARM SIGNALS

171 (1) RADIOTELEPHONE ALARM SIGNAL

The radiotelephone alarm signal consists of two audio frequency tones (one of 2200 and the other of 1300 Hz) transmitted alternately, giving a distinctive warbling sound, which can be distinguished by ear through heavy interference.

When generated automatically the signal should be sent continuously for a period of at least thirty seconds but not exceeding one minute. When generated by any other means it should be sent as continuously as practicable for a period of approximately one minute.

The purpose of this signal is to attract the attention of the person on watch, or to actuate automatic devices giving the alarm or activating a silenced loudspeaker for the message which is to follow.

It must be used only:

(a) to announce that a distress call or message is about to follow;

(b) by a duly authorised coast station to announce the transmission of an urgent cyclone warning, which should be preceded by the safety signal;

(c) to announce the loss of a person or persons overboard when the assistance of other ships is required and cannot be obtained satisfactorily by the use of the urgency signal only, but the alarm signal must not be repeated by other stations. The message must be preceded by the urgency signal (see Section **184**); or

(d) by emergency position-indicating radiobeacons. (See Section **183**).

The radiotelephone alarm signal transmitted by coast stations may be followed by a single tone of 1300 Hz for ten seconds.

(2) NAVIGATIONAL WARNING SIGNAL

The navigational warning signal consists of a single audio tone of 2200 Hz interrupted to give a sequence of alternate tone dashes and spaces each of duration 250 milliseconds lasting for fifteen seconds. The purpose of this signal is to attract attention to the announcement of a vital navigational warning to follow.

(3) EMERGENCY POSITION-INDICATING RADIOBEACON SIGNAL

See Section **183**.

(4) ALL SHIPS CALL (SSFC SELECTIVE CALLING SYSTEM)

The "All Ships Call" signal, which is reserved for alarm purposes only, consists of a continuous sequential transmission of eleven audio frequencies. The purpose of this special signal is to actuate receiving selectors on all ships regardless of individual code numbers.

The use of the "All Ships Call" is confined to distress and urgency in the MF and HF bands and the announcement of vital navigational warnings in those bands; additionally it may be used for safety purposes in the VHF band. This call may only be used to supplement, if required, the distress procedure specified in Section **175** and shall in no circumstances be used in place of such procedures, in particular the alarm signal mentioned in Section **171**(1).

DISTRESS SIGNAL

172 The radiotelephone distress signal consists of the word MAYDAY pronounced as the French expression "m'aider".

This signal indicates that a ship or an aircraft is threatened by grave and imminent danger and requests immediate assistance.

DISTRESS CALL

173 The radiotelephone distress call consists of:

—the distress signal MAYDAY, spoken three times;

—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—the name, or other identification, of the station in distress, spoken three times.

This call has absolute priority over all other transmissions. All stations hearing it, or the alarm signal preceding it, must immediately cease any transmission which could cause interference to the distress traffic, and continue to listen on the frequency for the sending of the distress message which follows.

DISTRESS MESSAGE

174 The distress message consists of:

—the distress signal MAYDAY,

—the name, or other identification, of the mobile station in distress,

—particulars of its position,

—the nature of the distress and the kind of assistance desired,

—any other information which might facilitate the rescue.

The position of the ship should be given in terms of latitude and longitude, or whenever practicable, as a true bearing and distance from a known geographical point. If, however, the vessel is in distress on a rock or shoal, or near a headland or other place, a precise geographical indication of the position should be given in order that the place cannot be confused with any other place or part of the coast, e.g. "near the Skerries off Holyhead". If drifting, the master should, if possible, also state the direction and rate of drift. He should also indicate any subsequent material change in the position or intentions of the vessel in distress.

DISTRESS CALL AND MESSAGE TRANSMISSION PROCEDURE

175 The radiotelephone distress procedure consists of:
—the alarm signal (whenever possible) followed by:
—the distress call;
—the distress message.

The distress message, preceded by the distress call, and the alarm signal if possible, shall be repeated at intervals, especially during the periods of silence mentioned in Sections **142** and **170** until an answer is received.

When the station in distress receives no answer to a distress message sent on a distress frequency, the message may be repeated on any other available frequency upon which attention might be attracted.

After the transmission of its distress message, the station may be requested to transmit suitable signals, followed by its name or other identification, to permit direction-finding stations to determine its position. This request may be repeated at frequent intervals if necessary.

EXAMPLE OF DISTRESS PROCEDURE

176 In this example it is assumed that the vessel "NONSUCH" has struck a rock and is in danger of sinking.

The master or person responsible for the "NONSUCH" having given the authority, the following is a list of the items, with the example opposite each item comprising the complete distress call and message that the vessel will send out on a distress frequency:

ITEM	EXAMPLE (Read down the columns)
The alarm signal	One minute transmission of the alarm signal, if possible, then the following spoken:

ITEM	EXAMPLE (Read down the columns)
The distress call	
—distress signal (three times)	MAYDAY MAYDAY MAYDAY
—the words THIS IS	THIS IS
—the name of the ship (three times)	NONSUCH NONSUCH NONSUCH
The distress message	
—distress signal	MAYDAY
—name of the ship	NONSUCH
—position	NEAR SKERRIES OFF HOLYHEAD
—nature of distress and assistance required	STRUCK ROCK AND IN SINKING CONDITION REQUIRE IMMEDIATE ASSISTANCE
—other information to help rescue ships	WILL FIRE A DISTRESS ROCKET AT INTERVALS
—invitation to reply and acknowledge	OVER.

ACKNOWLEDGMENT OF RECEIPT OF A DISTRESS MESSAGE

177 The acknowledgment of receipt of a distress message is given in the following form:

—the distress signal MAYDAY;

—the name, call-sign, or other identification, of the station sending the distress message, spoken three times;

—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

—the name, or other identification, of the station acknowledging receipt, spoken three times;

—the word RECEIVED (or RRR spoken as ROMEO ROMEO ROMEO in case of language difficulties);

—the distress signal MAYDAY

EXAMPLE

MAYDAY NONSUCH NONSUCH NONSUCH
THIS IS
KINGSTON JADE KINGSTON JADE KINGSTON JADE
RECEIVED MAYDAY

OBLIGATION TO ACKNOWLEDGE RECEIPT OF A DISTRESS MESSAGE

178 Ships which receive a distress message from a mobile station:

(a) *in their immediate vicinity*, must acknowledge receipt immediately. However, in areas where reliable communication with a coast station is practicable, the acknowledgment should be deferred for a short interval to allow the coast station to acknowledge receipt without interference;

(b) *not in their vicinity*, must acknowledge receipt after the elapse of a short interval to permit stations nearer to the mobile station in distress to acknowledge receipt without interference. However, a station of the maritime mobile service which has received a distress message from a mobile station which, beyond any possible doubt, is a long distance away, need not acknowledge receipt of messages except when, although not in a position to render assistance, it has heard a distress message which has not been acknowledged.

Every ship station which has acknowledged receipt of a distress message shall, upon the order of the master or person responsible for the ship, transmit as soon as possible the following information in the order shown:

—its name;

—its position;

—the speed at which it is proceeding towards, and the approximate time it will take to reach, the mobile station in distress;

—additionally, if the position of the ship in distress appears doubtful, ship stations should also transmit, when available, the true bearing of the ship in distress preceded by the abbreviation QTE (for classification of bearings, see Appendix 4).

Before transmitting this message the station must ensure that it will not interfere with the emissions of other stations better situated to render assistance to the station in distress.

When a mobile station has heard a distress message which has not been acknowledged, but is not itself in a position to render assistance, it must take all possible steps to attract the attention of other mobile stations which might be able to do so. For this purpose, with the approval of the master or person responsible for the ship, the distress call and message (and the alarm signal if necessary) may be repeated (see Section **181** for the procedure to be used).

DISTRESS TRAFFIC

179 Distress traffic consists of all communications concerned with rendering immediate assistance to the mobile station in distress; the distress

signal (MAYDAY) should be sent before each call and before each message concerned.

CONTROL OF DISTRESS TRAFFIC

180 The control of distress traffic is the responsibility of the ship in distress or of the station sending a distress message under the conditions outlined in Section **181**. However, this responsibility may be delegated to another station, e.g. to a coast station.

The ship in distress or the station controlling the distress traffic, may impose silence either on all stations of the mobile service in the area or on any station which interferes with distress traffic, by sending the instruction "SEELONCE MAYDAY" followed by its own name or other identification on the frequency being used for distress purposes. No other station may use this expression.

If any other station near the mobile station in distress believes it essential to do so, it may similarly impose silence, but in this case it must use the expression "SEELONCE DISTRESS" followed by its own name or other identification.

Any ship which has knowledge of distress traffic and cannot itself render assistance must follow such traffic until it is evident that assistance is being provided.

All ships which are aware of distress traffic, and are not taking part in it, are forbidden to transmit on a frequency being used for distress traffic except in the following circumstances:

When complete silence is no longer considered necessary on a frequency which is being used for distress traffic, the station controlling the traffic shall transmit on that frequency a message addressed to "all stations", in the following form, indicating that restricted working may be resumed:

—the distress signal MAYDAY;
—the call "HELLO ALL STATIONS" or CQ (spoken as CHARLIE QUEBEC) spoken three times;
—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
—the name, call-sign, or other identification, of the station sending the message;
—the time of handing-in of the message;
—the name and call-sign of the mobile station which is in distress;
—the words PRU-DONCE pronounced as the French word "prudence".

When the distress traffic has completely ceased on a frequency which has been used for distress traffic, the station which has controlled the distress traffic must let all stations know that normal working may be

resumed. This is done by sending a message in the following form to "all stations":

—the distress signal MAYDAY;
—the call "HELLO ALL STATIONS" or CQ (spoken as CHARLIE QUEBEC) spoken three times;
—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
—the name, call-sign, or other identification, of the station sending the message;
—the time of handing-in of the message;
—the name and call-sign of the mobile station which was in distress;
—the words "SEELONCE FEENEE".

When a station in distress has delegated control of distress working to another station, the person in charge of the station in distress should, when he considers silence no longer justified, immediately inform the controlling station, which will then advise CQ (all stations) that normal or restricted working may be resumed.

TRANSMISSION OF A DISTRESS MESSAGE BY A STATION NOT ITSELF IN DISTRESS

181 A ship station or a coast station which learns that a mobile station is in distress, shall transmit a distress message in any of the following cases:

(a) when the station in distress cannot itself transmit a distress message;
(b) when the master or person responsible for a ship not in distress, or the person responsible for the coast station, considers that further help is necessary;
(c) when, although not in a position to render assistance, it has heard a distress message which has not been acknowledged (see Section **178**).

When a distress message is transmitted by a station, not itself in distress, this fact must be made quite clear. If this is not done, direction-finding bearings might be taken on the station making this transmission and assistance could thereby be directed to the wrong position. Therefore in the cases mentioned in (a), (b) and (c) above, where the stations sending the distress message are not actually in distress themselves, and in any other circumstances where a distress message might be repeated by a station not itself in distress, the transmission of the distress message must always be preceded by the following call, which is preceded by the alarm signal, when possible:

—the signal MAYDAY RELAY, spoken three times;
—the words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);
—the name, call-sign, or other identification, of the station making the transmission, spoken three times.

A ship station should not acknowledge receipt of a distress message transmitted by a coast station under the conditions mentioned above until the master or person responsible has confirmed that the ship station concerned is in a position to render assistance.

MISUSE OF DISTRESS SIGNAL

182 *The use of the distress signal is absolutely forbidden except in the case of distress.*

The distress signal is provided for use in cases of imminent danger when immediate aid is necessary. Its use for less urgent purposes might result in insufficient attention being paid to calls made from ships who really require immediate assistance.

Where the sending of the distress signal is not fully justified, use should be made of the urgency signal (PAN PAN, see Section **184**), which has priority over all other communications except distress.

EMERGENCY POSITION-INDICATING RADIOBEACON SIGNALS—"EPIRB"

183 The emergency position-indicating radiobeacon signal consists of:

(a) for medium frequencies, i.e. 2182 kHz:
  (i) a keyed emission modulated by a tone of 1300 Hz, (± 20 Hz) having a period of emission of 1.0 to 1.2 s and a period of silence (carrier suppressed) of 1.0 to 1.2 s;
  or
  (ii) the radiotelephone alarm signal followed by the morse letter B and/or the call-sign of the ship to which the radiobeacon belongs, transmitted by keying a carrier modulated by a tone of either 1300 or 2200 Hz;
(b) for VHF, i.e. 121.5 MHz and 243 MHz, a signal whose characteristics shall be in accordance with those specified in Appendix 37A of the Radio Regulations. This is a swept tone modulation sweeping downward over a range of not less than 700 Hz, within the range 1600 to 300 Hz, with a repetition rate of between two and four sweeps per second.

The keying cycles of paragraph (a) (i) and (a) (ii) may be interrupted for speech transmission.

The essential purpose of the emergency position-indicating radiobeacon signals is to determine the position of survivors during search and rescue operations.

The signals indicate that one or more persons are in distress, may no longer be on board a ship or an aircraft, and that receiving facilities may not be available.

Any mobile station receiving one of these signals, while no distress or urgent traffic is being passed, should take the action indicated in Section **181**.

URGENCY SIGNAL

184 The radiotelephone urgency signal is sent only on the authority of the master or person responsible for the ship.

It consists of three repetitions of the group of words PAN PAN and indicates that the station sending it has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or the safety of a person.

The urgency signal and the message which follows are sent on either or both of the international distress frequencies (2182 kHz, 156.80 MHz) or on any other frequency which may be used in case of distress. The message shall be transmitted on a working frequency:

(a) in the case of a long message or a medical call, or
(b) in areas of heavy traffic in the case of the repetition of such a message.

An indication to this effect shall be given at the end of the call.

The message may be addressed to a particular station or to "all stations". If addressed to "all stations" the station sending it must cancel it by a similarly addressed message when action is no longer necessary.

The urgency signal has priority over all other communications except distress. All stations hearing it must avoid interfering with the message which follows.

Ships hearing an urgency signal must continue to listen for at least three minutes. At the end of that period, if no urgency message has been heard, a land station should, if possible, be notified of the receipt of the urgency signal. Thereafter, normal working may be resumed.

EXAMPLE OF URGENCY CALL AND MESSAGE

185 (1) The following is an example of an urgency call and message from the vessel "Nonsuch" which has lost its propeller and urgently requires a tow:

ITEM	EXAMPLE (Read down the columns)
Urgency signal (three times)	PAN PAN—PAN PAN—PAN PAN
The call	
(a) name of station called (up to three times)	HELLO ALL STATIONS HELLO ALL STATIONS HELLO ALL STATIONS
(b) the words THIS IS	THIS IS
(c) name of the calling station (up to three times)	NONSUCH NONSUCH NONSUCH
The urgency message	30 MILES DUE EAST OF FLAMBOROUGH HEAD LOST PROPELLER DRIFTING EAST SOUTH EAST AT TWO KNOTS REQUIRE TOW URGENTLY OVER.

MEDICAL TRANSPORTS

(2) The term "medical transports" as defined in the 1949 Geneva Conventions and Additional Protocols, refers to any means of transportation by land, water or air, whether military or civilian, permanent or temporary, assigned exclusively to medical transportation and under the control of a competent authority of a party to a conflict or of neutral States and of other States not parties to an armed conflict, when these ships, craft and aircraft assist the wounded, the sick and the shipwrecked.

For the purpose of announcing and identifying medical transports which are protected under the above-mentioned Conventions, a complete transmission of the urgency signal shall be followed by the addition of the single word "MAY-DEE-CAL", pronounced as in French "medical". The use of these signals indicates that the message which follows concerns a protected medical transport. The data to be conveyed in such messages is given in Article 40 of the I.T.U. Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services.

The frequencies prescribed for urgency-signal calls may be used by medical transports for the purpose of self-identification and to establish communications. As soon as practicable, communications shall be transferred to an appropriate working frequency.

SAFETY SIGNAL

186 The radiotelephone safety signal consists of the word "SÉCURITÉ" (pronounced SAY-CURE-E-TAY) sent three times before the call and indi-

cates that the station is about to transmit a message containing an important navigational or important meteorological warning.

The safety signal and call should be sent on either or both of the international distress frequencies (2182 kHz, 156.80 MHz) but may be sent on any other designated frequency for distress.

In the case of 2182 kHz, however, the safety message which follows the call should be sent on a working frequency. A suitable announcement to this effect should be made at the end of the call.

Safety messages are normally addressed to "all stations". They may, however, be addressed to a particular station.

With the exception of messages transmitted at fixed times, the safety signal should be transmitted towards the end of the first available silence period and the message transmitted immediately after the silence period (see Section **142**).

Meteorological and navigational warning messages must be transmitted without delay, and repeated as indicated above at the end of the first silence period which follows.

All stations hearing the safety signal must listen to the safety message until they are satisfied that it is of no concern to them.

They shall not make any transmission likely to interfere with the message.

CHAPTER VIII

Special Services

RADIODETERMINATION SERVICES

187 Administrations which operate radiodetermination stations providing services of value to the maritime mobile service notify the particulars and characteristics of their stations for publication in the List of Radiodetermination and Special Service Stations. Administrations take steps to ensure the effectiveness and regularity of their services, but accept no responsibility for the consequences that might arise from the use of inaccurate information furnished, defective working or failure of their stations.

Information concerning modification or irregularity of working of a radiodetermination station is sent out by the appropriate coast stations daily, if necessary, until such time as normal working is restored, or, if a permanent alteration has been made, until such time as it can reasonably be taken that all navigators interested have been warned.

Permanent alterations, or irregularities of long duration, are published as soon as possible in the appropriate notices to navigators.

RADIO DIRECTION-FINDING

188 Particulars of coastal radio direction-finding stations, including the sectors in which bearings are normally reliable, are published in the List of Radiodetermination and Special Service Stations. Before calling one or more radio direction-finding stations for the purpose of asking for a bearing or position, a ship station should obtain the necessary information regarding call signs or other identifications, watch frequencies, grouping of stations, etc., from this List.

The radiotelegraph frequency normally used for radio direction-finding in the maritime radionavigation service is 410 kHz. All stations taking part in this service must be able to use this frequency. In addition, they must be able to take bearings on 500 kHz, especially for locating stations sending signals of distress, alarm and urgency.

Where a radio direction-finding service is provided in the authorised

bands between 1605 and 2850 kHz, radio direction-finding stations should be able to take bearings on the radiotelephone distress and calling frequency, 2182 kHz.

The procedure for obtaining radio direction-finding bearings and positions is given in Appendix 4.

For the relative priority of communications concerned with radio direction-finding see Section **20**.

RADIOBEACON STATIONS

189 Particulars of radiobeacon stations for use by the maritime services are published in the List of Radiodetermination and Special Service Stations.

In the bands between 283.5 and 315 kHz, the maritime radiobeacon stations controlled by a large number of the Administrations of the European Maritime Area (including the United Kingdom and the Irish Republic) operate on an internationally agreed frequency sharing plan, which allows a group of up to six different radiobeacons to transmit on the same frequency. The grouping of the radiobeacon stations is planned to facilitate the taking of cross-bearings and in some cases will include radiobeacons controlled by more than one Administration inside the same group.

These radiobeacon stations transmit consecutively during a six minute cycle in an agreed order according to the number of stations inside the group, a standardised type of characteristic signal, e.g. if there are six radiobeacon stations in the group, each station transmits its characteristic signal for one minute, in turn, in each six minute cycle; if there are three stations in the group either the first station transmits for the first and fourth minute, the next for the second and fifth minutes and the last for the third and sixth minutes, or, the first transmits for the first two minutes, the second for the next two minutes and the third for the last two minutes of the six minute cycle.

METEOROLOGICAL INFORMATION

190 Particulars of stations sending out meteorological bulletins at fixed times are given in the List of Radiodetermination and Special Service Stations.

Meteorological warning messages are prefixed by the safety signal and are normally transmitted on a working frequency after a preliminary announcement on the appropriate calling and distress frequency.

During the transmission of meteorological bulletins and warning messages intended for reception by ship stations, all stations of the maritime

service whose transmissions might interfere with the reception of these messages must keep silent in order to permit all stations which desire to do so to receive these messages.

A special meteorological forecast for shipping for any area between parallels 35 degrees and 65 degrees North, and the meridian 40 degrees West and the coasts of the European Continent, for periods up to 24 hours, may be obtained at any time on request from a United Kingdom coast station. The request should be addressed to the coast station and should state the required period, the required area and the ship's name.

The request will be sent to the Meteorological Office at Bracknell and the reply sent to the ship by the coast station as soon as possible. Radiotelephone link calls requesting forecasts can be made through U.K. Coast Stations to the Ocean Forecaster, Bracknell (0344) 420242. A standard charge will be made for the inland telegraph service or R/T call.

EXAMPLE OF REQUEST MESSAGE

"ANGLESEY RADIO = INDICATE WEATHER FORECAST FOR NEXT 12 HOURS IRISH SEA = KINGSTON JADE".

Any ship station may, for its own use, listen to messages containing meteorological observations sent out by other ship stations, even those which are addressed to a national meteorological service. Ship stations which transmit meteorological observations addressed to a national meteorological service are not required to repeat them to other stations; however, exchange of information relating to the weather is authorised between ship stations.

Messages originating in ship stations containing information concerning the presence of cyclones must be transmitted with the least possible delay to other ship stations in the vicinity and to the appropriate authorities at the first point of the coast with which contact can be established. Their transmission is preceded by the safety signal.

NAVIGATIONAL INFORMATION

191 (1) Particulars of stations making regular transmissions of navigational information for the benefit of mariners are published in the List of Radiodetermination and Special Service Stations.

The transmissions are prefixed by the safety signal and are normally sent on a working frequency after a preliminary announcement on the appropriate calling and distress frequency.

Messages containing information concerning the presence of dangerous ice, dangerous wrecks, or any other imminent danger to marine navigation, must be transmitted as soon as possible to other ship stations in

the vicinity, and to the appropriate authorities at the first point of the coast with which contact can be established. These transmissions should be preceded by the safety signal.

During the transmission of navigational information, all stations of the maritime mobile service should avoid making transmissions which might interfere with the reception of the information by stations desiring to receive it.

(2) COAST STATION RADIOTELEPRINTER BROADCASTS OF NAVIGATIONAL AND METEOROLOGICAL WARNINGS AND URGENT INFORMATION TO SHIPS (NAVTEX)

In addition to existing methods, navigational and meteorological warnings and urgent information are transmitted by means of narrow-band direct-printing telegraphy, with forward error correction, by selected coast stations. The operational details of these stations are indicated in the List of Radiodetermination and Special Service Stations. The frequency used is 518 kHz.

In Northern Europe, the broadcasts cover coastal waters within the area bounded by 71°N, 48°27'N,35°W and the coastline of Europe, including the Baltic, i.e. Navarea I of the worldwide navigational warning service.

The transmissions can be received by ships' radiotelex installations but, to gain full benefit from the system, dedicated equipment is recommended. The dedicated equipment comprises a small unit containing a receiver, fixed-tuned to the broadcast frequency, and a teleprinter using roll paper. The equipment is switched on continuously and may be programmed to receive only selected stations and/or categories of message. A micro-processor control ensures that a routine message already received will not be reprinted on subsequent transmissions and also that messages will not be printed unless the received signal is strong enough to guarantee a reasonable copy.

All messages are prefixed by a four-character group. The first character denotes the identity of the transmitting station, the second indicates the category of message and the third and fourth are serial numbers. A serial number 00 denotes urgent traffic and will always be printed regardless of the programming of the receive equipment.

Further details may be obtained from British Telecom International, MAR3.1.1, First Floor, 43 Bartholomew Close, London, EC1A 7HP.

MEDICAL ADVICE AND MEDICAL ASSISTANCE

192 Medical advice can be obtained from any coast station in the United Kingdom and Irish Republic by addressing a radiotelegram to the station

concerned. The coast station will communicate the message to the appropriate medical authority whose reply will be signalled to the ship.

Similarly, if medical assistance (e.g. a doctor) from the shore is required, the request should be addressed as a radiotelegram to the coast station. The coast station will communicate the message to the coastguard who will take the necessary action.

In both cases the messages will be exchanged free of charge. Subject to the conditions laid down in Sections **132** and **184** the use of the Urgency Signal (XXX on radiotelegraphy and PAN PAN on radiotelephony) is proper in both cases.

Details of the facilities available to ships at sea for obtaining medical advice through the medium of the radio services of other countries are given in the List of Radiodetermination and Special Service Stations.

CHAPTER IX

Maritime Satellite Services

195 INMARSAT SYSTEM

Maritime Satellite services based on high quality telephone and telegraph circuits, are available from and to suitably equipped ships via the INMARSAT system. Distress, Urgency and Safety services and public correspondence Telex, Telephone, Data and Facsimile services using INMARSAT geostationary satellites covering the Atlantic, Pacific and Indian Ocean Regions are available via Goonhilly (U.K.), Singapore and Eik (Norway) coast earth stations. Fuller information on the services provided by British Telecom International is available from the Maritime and Aeronautical Radio Executive, Telex 916554 BTIMR G, or Telephone 01-936 4996.

194 BRITISH TELECOM SERVICES

A maritime satellite Ship Earth Station (SES) Users Handbook giving details of services and charges via British Telecom International system and covering the three ocean area regions is available on application to British Telecom International, Maritime and Aeronautical Radio MAR1.2.3.1, 43, Bartholomew Close, London EC1A 7HP.

These services include PHONETEX; whereby messages may be dictated to PortisheadRadio by U.K. telephone subscribers for onward transmission to ships fitted with a satellite terminal.

The address format will be;

= NAMETO
SHIPSNAME
PHONETEX =

Charging is made on a per-minute basis. Two attempts will be made to contact the ship by satellite, then the sender will be advised of non-delivery.

195 ATLANTIC OCEAN SATELLITE REGION

1 TELEX SERVICE

1.1 General

(i) The Goonhilly CES located at Cornwall, U.K. offers fully AUTOMATIC telex service TO, FROM and BETWEEN ships equipped with Ship Earth Stations. In addition special 2 digit code services are also available. See para 1.3.

(ii) *Shore-based* telex installations are accessed in the automatic service using Code 00 followed by the Country Code and the Subscribers number.

Note: Over 175 countries can be accessed via Goonhilly using the automatic service.

(iii) *Ship-based* installations are accessed in the automatic service using Code 00 followed by the Maritime Country Code and the called SES Identification Number.

(iv) Calls can also be made to ships equipped with VHF/MF/HF equipment—see para 1.4.

(v) The Maritime Country Codes are

581—Atlantic Ocean Satellite
582—Pacific Ocean Satellite
583—Indian Ocean Satellite

1.2 Calls from Ships

If your ship is in the region covered by the Atlantic Ocean Satellite (see map at Reference section) follow the procedures for your terminal unit and select

—*GOONHILLY CES IDENTIFICATION CODE 02*
—a duplex channel
—Routine Priority (if Medical Advice, Medical Assistance or Maritime Assistance is required select URGENCY priority)
—When Goonhilly has acquired your SES, you will receive an acknowledgment in the form GH INMARSAT 11.11. Goonhilly will then automatically take your answerback. After a few seconds you will receive GA+, immediately key the complete telex number including 00 and "country" code (for the U.K. this is 51) if you are using the automatic service, or the 2 digit code for other services. *END SELECTION WITH A + SIGN.* Do not enter any signal prior to the number.
—CLEAR the call by keying Figure Shift . . . . . (5 full stops) when the Date, Time and Duration of Call to the nearest Decimal minute will be returned to you in the form:

01/FEB/83 03:21 5:3 MINS

1.3 Telex two digit code services offered via Goonhilly

Two Digit Code	Service Description	Access Point	Notes
00	Automatic Calls	BTI Automatic switching centre London	Access is available to about 98% of the world's installations as well as other equipped ships
12	International Information Service	BTI Operator services London (London Inf P)	For directory information
14	Information Service	BTI London (BTI MR G)	For general enquiries Telex staffed during U.K. office hours
15	Radio Telegram	Portishead Radio (BTGKA G)	For telegrams to all addresses Compile using CCITT F31 format
31	Maritime Enquiries		General enquiries and booking point for telephone and telex calls to ships using the conventional radio service
*32	Medical Advice		Select URGENCY priority. Portishead relays message to RN Hospital in Plymouth. For direct communication use telephone Code 32*
33	Technical Assistance	BTI G'nhilly CES (GH Test Desk)	
*38	Medical Assistance	MRCC Falmouth (FALMCG G)	Select URGENCY priority
*39	Maritime Assistance	MTCC Falmouth (FALMCG G)	Marine Safety requiring Rescue Authority Support. Select URGENCY Priority. Reports of, e.g. Man Overboard, Engine breakdown, Steering gear failure, vessels in heavy weather, oil pollution and fog warnings. If TOW is required, make CHARGEABLE call *direct* to Lloyd's on 0051987321+.
*41	Reports to Met Office	Met Office Bracknell (WEABKA G)	From VOF ships only
*42	Navigational Hazards, Warnings	The Hydrographer Taunton (HYDRNW G)	Reports of wrecks, derelicts, floating obstructions, defective radio beacons or light vessels, icebergs and floating mines
*43	Ships Position Reports	Portishead Radio (BTGKA G)	AMVER messages only

*Normally traffic sent to these codes will not be charged to the ship but if the facilities accessed are abused the public authority responsible for meeting the charges reserve the right to reject the bill which will then become payable by the ship. Codes 32, 38 and 39 are only to be used for Urgency and Safety.

Two Digit Code	Service Description	Access Point	Notes
91	Automatic Telex Test	BTI Automatic switching centre London (OS DSTN KYBGW G)	"Quick Brown Fox" test message
*92	SES Commissioning Tests	BTI Goonhilly CES (GH Test Desk)	

1.4 F31 Formats for Telex Services via Goonhilly

(i) How to send *RADIOTELEGRAM, AMVER* or *MEDICAL ADVICE*

12 L/S 10 L/F
Obtain answerback code
1 L/S
Send ship's answerback code
1 C/R 3 L/F
SHIP NAME and CALL SIGN SES ID No wds Date Time AAIC†
2 C/R 3 L/F
Service Instructions
1 C/R 3 L/F
Paid service Instructions
1 C/R 1 L/F
Address
1st line Name of Addressee C/R L/F
2nd line House name or Number and Street C/R L/F
3rd line Destination as per Telegraphic Address List
1 C/R 3 L/F
Text
1 C/R 1 L/F at end of each line
Signature
1 C/R 3 L/F
Collation
1 C/R 1 L/F
Obtain answerback code
1 L/S
Send ship's answerback code
1 C/R 10 L/F

*Normally traffic sent to these codes will not be charged to the ship but if the facilities accessed are abused the public authority responsible for meeting the charges reserve the right to reject the bill which will then become payable by the ship. Codes 32, 38 and 39 are only to be used for Urgency and Safety.
†Not required for AMVER or MEDICAL ADVICE.

(ii) How to send *Maritime Enquiry* or *Radio Telephone/Telex Booking*

12 L/S 10 L/F
Obtain answerback code
1 L/S
Send ship's answerback code
1 C/R 3 L/F
A GKA DE SHIP NAME SES ID Date
1 C/R 3 L/F
Text
1 C/R 1 L/F at end of each line
1 C/R 3 L/F
Collation
1 C/R 1 L/F
Obtain answerback code
1 L/S
Send ship's answerback code
1 C/R 10 L/F
Legend: L/S = Letter Shift; L/F = Line Feed; C/R = Carriage Return

1.5 Calls to Ships fitted with VHF/MF/HF equipment

If you wish to call a ship fitted with VHF/MF/HF equipment book the call with Portishead Radio using the 2 digit code 31.

Portishead Radio will establish the call to the required ship and call you back.

1.6 Make the most of the Service—a few hints

(i) Key the wanted number as a continuous sequence of digits without long pauses. Allow up to 90 seconds for the call to be connected and answerback received. If no answerback is received, attempt to take the answerback manually before you assume the call has failed.

(ii) If you receive service codes NC or OCC clear the connection immediately and attempt the call after one minute. If you receive the service codes NA, NCH or NP, check the called number from your records and make a further attempt. If ABS, CI, DER, INF or JFE are received, contact the information services for telex (2 digit code 12 or 14) to check the required number. See Chapter VII.2 for a list of Service Codes.

(iii) *Examples*

(a) Call to London
Key 005112345+

(b) Call to a SES in Pacific Ocean
Key 005821234567+

(c) Medical Assistance (select URGENCY priority)
Key 38+
(d) To book a telephone or telex call to a ship without a SES
Key 31+ and give details.

1.7 Other BTI Services/Facilities

(i) TELEXLETTER

This service is provided by Portishead Radio and accessed by selecting 005146105+ in the automatic service via the Goonhilly CES. Messages sent to this number must bear a full postal address, they will be posted to the addressee from Portishead Radio.

FORMAT REQUIRED FOR TELEX LETTER SERVICE

Legend: L/S=Letter Shift; L/F=Line Feed; C/R=Carriage Return

Preamble— 12 L/S 10 L/F
Obtain Answerback
C/R 3 L/F
SHIPNAME SES ID Date AAIC
C/R 3 L/F
—RTL—
C/R L/F

Address— Mr John Smith
10 York Street
London SE1 8DJ
UK
with EACH line separated by C/R and L/F
C/R 3 L/F

Text— John.
I will arrive at Waterloo Monday next at 2.30 pm UK time.
Please arrange hotel accommodation for 3 nights in London and meet me with car.
Regards Mike
C/R L/F
Obtain Answerback

NB: If the text exceeds 50 words the component sections should be separated by (50), a C/R and 3 L/F. The above format should be adhered to.

(ii) FOLLOW-ON CALLS

A follow-on call may be initiated by selecting Figure Shift 5 commas, ie ,,,,, Goonhilly will return the Advice of Duration of the previous call and the Goonhilly Inmarsat header message ready for your next call.

2 TELEPHONE SERVICE

2.1 General

(i) The Goonhilly CES offers fully AUTOMATIC telephone service from ship to shore and to other ships equipped with SESs. Telephone calls from ship can also be connected manually via an international operator who is accessed by the 2 digit code 11. Other special 2 digit code services are also available, see para 2.3.

(ii) *Shore-based* telephones are accessed in the automatic service using Code 00, followed by the Country Code, area code and the subscribers number.

(iii) *Ship-based* telephones are accessed from other ship earth stations using Code 00 followed by the Maritime Country Code and the called SES Identification Number.

(iv) Calls can also be made to ships fitted with VHF/MF/HF equipment—see para 2.4.

(v) The Maritime Country Codes are

871—Atlantic Ocean Satellite
872—Pacific Ocean Satellite
873—Indian Ocean Satellite

Note: Over 120 countries can be accessed via Goonhilly using the automatic service.

2.2 Calls from Ships

If your ship is in the region covered by the Atlantic Ocean Satellite, follow the procedures for your terminal unit and select

—*GOONHILLY CES IDENTIFICATION CODE 02*
—A duplex channel with compandors
—Routine Priority (if Medical Advice, Medical Assistance or Maritime Assistance is required select URGENCY priority)
—When you receive the confirmation signal
:lift the receiver
:listen for dial tone (a burst of tone lasting 1.5 seconds)
:Key 00 if using the automatic service followed by the country code (44 for the UK) and the required number. Key a 2 digit Code for Other Services
:END SELECTION WITH A #

2.3 Telephone two digit code services offered via Goonhilly

Two Digit Code	Service Description	Access Point	Notes
00	Automatic Calls	BTI Automatic Switching Centre London, UK	Automatic access is available to over 93% of the world's telephones as well as other equipped ships via Goonhilly CES
11	International Operator		Please advise the operator of the number you require and also state the name of your ship and its identification (SES) number. The operator can give you Advice of Duration and Charge if requested. Calls are subject to a 3 minute minimum.
12	International Information Service	BTI Operator Service Ships Position	For directory information
13	National Operator	London UK	Please advise the operator of the number you require also state the name of your ship and its identification (SES) number
14	Information Service	BTI London	For general enquiries. Telephone staffed during UK office hours only.
32*	Medical Advice	RN Hospital Plymouth UK	Select URGENCY priority.
33	Technical Assistance	BTI Goonhilly CES UK	
34	Personal Calls	BTI Operator Service Ships Position London UK	Please advise the operator of the number you require and name the person. Also state the name of your ship and its identification (SES) number.
35	Collect calls	BTI Operator	From AOR to U.K.
36	British Telecom Credit Card Calls	Ships Position London	Telephone numbers only
38*	Medical Assistance	MRCC Falmouth UK	Select URGENCY priority
39*	Maritime Assistance	MRCC Falmouth UK	Marine Safety requiring Rescue Authority Support. Select URGENCY priority. Reports of, e.g. Man Overboard, Engine breakdown, Steering gear failure, vessels in heavy weather, oil pollution and fog warnings. If TOW is required, make CHARGEABLE telex call *direct* to Lloyd's on 0051987321+
	SES		
92*	Commissioning Tests	BTI Goonhilly CES UK	

*Normally traffic sent to these codes will not be charged to the ship but if the facilities accessed are abused, the public authority responsible for meeting the charges reserve the right to reject the bill which will then become payable by the ship. Codes 32, 38 and 39 are only to be used for Urgency and Safety.

2.4 Calls to Ships fitted with VHF/MF/HF equipment

If you wish to call a ship fitted with VHF/MF/HF equipment book the call with Portishead Radio using the TELEX 2 digit Code 31. Portishead Radio will establish the call to the required ship and call you back.

2.5 Make the most of the Service—a few hints

(i) Key the wanted number as a continuous sequence of digits without long pauses. After keying allow 60 second for the call to be connected before you assume that the attempt has failed.

(ii) Should the call fail you should hear one of the following:

(a) busy tone (cadence tone of $\frac{1}{2}$ second on $\frac{1}{2}$ second off).

(b) congestion tone (cadence tone of $\frac{1}{4}$ second on $\frac{1}{4}$ second off).

(c) special information tone (three tones with different frequencies in rapid succession—not in the U.K.).

(d) recorded announcement.

(e) you may hear a tone from the destination country which is not one of the tones listed above also indicating that the call has failed.

(iii) If this happens, clear the connection immediately. Where busy or congestion tone is received, try again in one minute. In other cases of difficulty, contact the telephone operator using the 2 digit Code 11 #

(iv) *Examples*

(a) Automatic Call to New York, USA.
Key: 0012121234567 #

(b) Automatic Call to another SES in Indian Ocean.
Key: 008731234567 #

(c) Personal call to a named subscriber.
Key: 34 # and give details to the telephone operator.

(d) Medical Assistance (select URGENCY priority).
Key: 38 #

196 PACIFIC OCEAN SATELLITE REGION

1 TELEX SERVICE

1.1 General

(i) The SINGAPORE CES offers fully AUTOMATIC and manual telex service TO, FROM and BETWEEN ships. In addition special 2 digit code services are also available. See para 1.3.

(ii) *Shore-based* telex installations are accessed in the automatic ser-

vice using Code 00 followed by the destination Country Code and the Subscribers number.

(iii) *Ship-based* installations are accessed in the automatic service using Code 00 followed by the Maritime Country Code and the called SES Identification Number.

(iv) Calls can also be made from a SES equipped ship to a ship using VHF/MF/HF equipment—see para. 1.4.

(v) The Maritime Country Codes are

581—Atlantic Ocean Satellite
582—Pacific Ocean Satellite
583—Indian Ocean Satellite

1.2 Calls from Ships

(i) If your ship is in the region covered by the PACIFIC Ocean Satellite, follow the operational procedures for your terminal unit and select

—*SINGAPORE CES IDENTIFICATION CODE 10 (SES using Decimal numbering Call 8)*
—a duplex channel
—Routine Priority (if Medical Advice or Medical Assistance is required select URGENCY Priority)

Initiate your call thereafter.

(ii) When SINGAPORE CES has transmitted your ship's answerback the date and time group, CES identification code (SNG 10) and GA+ sequence, proceed as follows depending on the service required:

(a) Automatic Calls

Set up the call by keying
—service code 00
—destination code
—the required shore/ship telex number
—and ending the selection with + (plus) sign

When the called subscriber's answerback is received:
depress HERE IS (◇) key (to identify yourself)
transmit message .....
depress WRU (+) key (to ensure continuity)
clear the call by keying
—Figure shift
—5 Full stops (. . . . .)

The duration of your call will be printed out as follows:
Month Date Time (hours and mins.) of clearing call and Duration of call in hours, minutes, seconds.

(b) Operator-Assisted Calls

Ships experiencing difficulty in obtaining automatic connections or wanting to make calls to manual destinations may request the assistance of the International Operator by:

—keying service code 11

—ending the selection with a + (plus) sign.

When the switchboard position answerback (MARINTLX 01 RS) appears, pass your booking, e.g. Singapore 12345 ABCD + ? (Called Destination and Number).

Wait until the called subscriber's answerback (in the example, ABCD RS 12345) is received, and then

—depress HERE IS (◇) key

—transmit message

—depress WRU (+) key (to ensure continuity)

—depress CLEAR button.

(c) Telex Enquiry Service (Ship-to-shore)

The Singapore Telex Enquiry Service is accessed by:

—keying service code 14

—ending the selection with a + (plus) sign.

When the Enquiry Position answerback appears (ENQ A 114), follow the procedure detailed in para 1.2 (ii) (a) above and the position will revert to you when the information is obtained.

Calls made to the Enquiry Position (14+) are chargeable. Remember to give your telex number and answerback code.

1.3 Telex two digit code services offered via Singapore

Two Digit Code	Service Description	Access Point	Notes
00	Automatic Calls	Singapore CES	Access is available to over 90% of the destinations of the world as well as to all SES equipped ships
11*	Operator Assistance	Telex Operations	In case of difficulty on auto calls as well as for calls to manual destinations. For booking calls to ships using conventional Radio Service
14	Telex Enquiry Service	Telex Operations	Directory information for local subscribers only
15*	Service Telegram	Telegraph Operations	

*Calls made to services with these codes are free of charge to shipping.

Two Digit Code	Service Description	Access Point	Notes
32*	Medical Advice	Singapore General Hospital	Select URGENCY priority
33	Technical Assistance	Singapore CES	
38*	Medical Assistance	Singapore General Hospital	
41†*	Meteorological Report	Meteorological Office	Weather reports should be prefixed by the abbreviation OBS before the address METEO SINGAPORE
42†*	Navigational Hazards, Warnings from ship	Marine Department	Reports of tropical storms, wrecks or other items of danger to marine navigation.
91	Automatic Telex Test	Singapore CES	"Quick Brown Fox" test message
92*	SES Commissioning Tests	Singapore CES	

1.4 Calls to Ships fitted with VHF/MF/HF equipment

(i) Normal Calls

SES equipped ships can also make calls to ships fitted with HF radio equipment through the ARQ/SITOR radio telex service with the assistance of the International Operator at 11+, with whom the call booking should be placed. The procedure is:

(a) Follow the operational procedures for your terminal unit and select:
—*SINGAPORE CES IDENTIFICATION CODE 10 (SES using decimal numbering Code 8)*
—a duplex telex channel
—Routine Priority.

(b) When the CES has transmitted your ship's answerback, the date and time group, CES identification code (SNG 10) and GA+ sequence, key:
—service code 11
—and end the selection with +(plus) sign.

*Calls made to services with these codes are free of charge to shipping
†Messages should be classified as SAFETY and should contain the following
—name of ship
—radio call sign and SES ID
—particulars of weather observations/navigational hazard
—any other relevant information

(c) Wait until the switchboard position answerback appears before you pass your booking.
(d) The International Assistance Operator will set up the call with the help of SINGAPORERADIO.
(e) When the called ship's answerback and GA appear, proceed to transmit the message. Please remember that the mode of transmission for radio telex is on SIMPLEX. Invitation for either party to speak must be indicated with +?
(f) At the end of transmission, depress WRU (+) key to ensure continuity before clearing the call.

(ii) Store and Forward Calls

If you know that the wanted vessel is not in a position to respond immediately to calls by Singapore Radio on HF, facilities can be provided to store the data on 5-unit tape for retransmission by Singapore Radio later. The procedure is:

(a) Follow the operational procedures for your terminal unit and select:
—Singapore CES Identification Code 10 (SES using Decimal numbering Call 8)
—a duplex telex channel
—Routine Priority.
(b) When the CES has transmitted your ship's answerback, the date and time group, CES identification code (SNG 10) and GA+ sequence, key:
—service code 00
—destination code
—the telex number of SINGAPORERADIO RS34403
—and end the selection with a + (plus) sign.
(c) When the Singapore Radio answerback (MARTEL RS34403) appears:
—inform the Singapore Radio Operator that you wish to utilise the Store and Forward facilities (provided free of charge)
—give the following particulars for the booking to be made:
—Accounting Authority Identification Code (AAIC) of the SES equipped ship
—name and call sign of the wanted ship
—name and destination of the wanted party on board the ship
—the call code of the Selective Sequential Frequency Calling (SSFC) of the wanted ship
—the approximate geographical position of the wanted ship (i.e. whether in POR, AOR or IOR)
—transmit your message to Singapore Radio for storage and eventual transmission.

(d) Singapore Radio will advise you when transmission to the called vessel has been completed.

1.5 Telegram Service from Ships

1. General

Ships can use the Telegram Service by keying 15+. Urgent and letter telegrams will not be accepted.

2. Calls from ships

(i) To file a telegram, please follow the operational procedures of your terminal unit and select:

—*SINGAPORE CES IDENTIFICATION CODE 10 (SESs using Decimal numbering Call 8)*
—a duplex telex channel
—Routine Priority.

(ii) When the CES has transmitted the date and time group, CES identification code (SNG 10), your ship's answerback and GA+ sequence, proceed as follows.

—key 15+
trigger your answerback code when "PRINTEL XX" appears
—send the telegram with Accounting Authority Identification Code (AAIC) or QRC on the preamble line. It should contain the full name, postal address and destination for delivery. At the end of transmission, depress the WRU (+) to ensure continuity
—clear the call by keying Figure Shift and 5 periods ..... when the duration of the call will be printed.

3. Example of Ship-to-shore Telegram

—Key/select 10 (SES with decimal numbering call 8)—Singapore CES identification code
—Select duplex telex channel
—Select Routine Priority
—SHIP ANSWER BACK
DATE TIME GROUP
SNG 10 (Response from CES)
CA+
—Key 15+ (Printergram service)
PRINTEL XX appears
—Depress HERE IS (◇) key (to identify yourself)
—Transmit telegram
e.g. PREAMBLE 1 C/R 2 L/F 1 L/S

NAME, ADDRESS, DESTINATION 1 C/R 3 L/F
TEXT 1 C/R 2 L/F
COL (if any) 1 C/R 10 L/F
Depress the WRU (+)
CLEAR with F/S 5 Full Stops (. . . . .)

Legend: C/R = Carriage Return; L/F = Line Feed; L/S = Letter Shift; F/S = Figure Shift.

1.6 Make the most of the Service—a few hints

Please take note of the following:

(a) Ships equipped with some specific types of old model SES (with 2 channel TDM) cannot make telex/telegram calls through the Singapore CES. They can only call through USA's Santa Paula CES and Japan's Ibaraki CES. Telex/telegram calls from SES equipped ships to ships equipped with some types of old model SESs (with 2 TDM channels) can only be made by operator assistance using Service Code 11.

(b) Number should be keyed as a continuous sequence of digits without spaces.

(c) Some time should be allowed for connection. After exchange of answerback codes, proceed with the transmission of the message.

(d) Call charging begins when the called subscriber's answerback is received.

(e) If the telex service code NC or OCC is received, repeat the call after a short while (e.g. 2 minutes). If you receive the service code NA, NCH or NP, check the called number from your records and reattempt.

2 TELEPHONE SERVICE

2.1 General

(i) The Singapore CES offers fully AUTOMATIC telephone service TO, FROM and BETWEEN ships. It is also possible to establish telephone calls manually via the operator.

(ii) *Shore based* telephones are accessed in the automatic service using Code 00, followed by the country code, area code and the subscribers number.

(iii) *Ship based* telephones are accessed from other ship earth stations using Code 00 followed by the Maritime Country Code and the called SES Identification number.

(iv) Calls can also be connected to ships with VHF/MF/HF equipment—see para 2.4.

(v) The Maritime Country Codes are
871—Atlantic Ocean Satellite
872—Pacific Ocean Satellite
873—Indian Ocean Satellite

2.2 Calls from Ships

(i) If your ship is in the region covered by the Pacific Ocean Satellite, follow the procedures for your terminal unit and select:

—*SINGAPORE CES IDENTIFICATION CODE 10 (SES with Decimal numbering Call 8)*
—a duplex channel with compandors.
—Routine Priority (if Medical Advice or Medical Assistance is required select URGENCY priority).
—When you receive the confirmation signal
:lift the receiver
:listen for dial tone (a burst of tone lasting 1.5 seconds)
:Key 00 if using the automatic service followed by the "country" code and the required number. Key a 2 digit Code for Other Services.
:END SELECTION WITH A #

(ii) *Examples:*

(a) Automatic call to Singapore

Key	00	65	1234567	#
	prefix for automatic call	Country Code for Singapore	Subscribers number	end of selection

(b) Automatic calls to another ship in Pacific Ocean
Key 00 872 1234567 #

(c) Operator-assisted call to a shore subscriber

Key	11#	give details to the telephone operator

2.3 Telephone two digit code services offered via Singapore

Two Digit Code	Service Description	Access Point	Notes
00	Automatic Calls	Singapore CES	Access is available to over 90% of the world's telephones as well as to other equipped ships.
11	International Operator	Singapore CES Operator	Please advise the operator of the number you require. Also state the name of your ship and its identification (SES) number. Used for both international and national calls. Personal and collect calls facilities are also available.

Two Digit Code	Service Description	Access Point	Notes
14	National Information Service	Singapore National Operator	For directory information of Singapore Shore subscribers.
32*	Medical Advice	Singapore General Hospital	Select URGENCY priority. Tell the operator you have a Medical Advice call for Extension 4109.
33	Technical Assistance	Singapore CES	
38*	Medical Assistance	Singapore General Hospital	
92*	SES Commissioning Tests	Singapore CES	

2.4 Calls to Ships fitted with VHF/MF/HF equipment

(i) Calls to ships fitted VHF/MF/HF equipment should be booked as a manual call via the 2 digit operator Code 11. Give details to the International Operator.

(ii) The international operator will call you back when arrangements have been made with Singapore Radio (coast station) to connect you to the wanted vessel.

197 INDIAN OCEAN SATELLITE REGION

1 TELEX SERVICE

1.1 General

(i) The EIK CES located in Rogaland, Norway, offers fully AUTOMATIC telex service TO, FROM and BETWEEN ships equipped with Ship Earth Stations. In addition special 2 digit code services are also available. See para 1.3.

(ii) *Shore-based* telex installations are accessed in the automatic service using Code 00 followed by the Country Code and the Subscribers number.

Note: Other countries can be accessed via Eik using the automatic service.

*Calls made to services with these codes are free of charge to ships

(iii) *Ship-based* installations are accessed in the automatic service using Code 00 followed by the Maritime Country Code and the called SES Identification number.

(iv) Calls can also be made to ships with VHF/MF/HF radiotelex equipment. See para. 1.6. The Maritime Country Codes are

581—Atlantic Ocean Satellite
582—Pacific Ocean Satellite
583—Indian Ocean Satellite

1.2 Calls from Ships

If your ship is in the region covered by the Indian Ocean Satellite, (see map at Reference section) follow the procedures for your terminal unit and select

—*EIK CES IDENTIFICATION CODE 04*
—a duplex channel
—Routine Priority (if Medical Advice, Medical Assistance or Maritime Assistance is required select URGENCY priority)
—When EIK has transmitted the GA+ sequence; immediately key the complete telex number including 00 and "country" code if you are using the automatic service, or the 2 digit code for other services. *END SELECTION WITH A + SIGN.* Do not enter any signal prior to the number.
—CLEAR the call by keying 5 Full Stops, i.e. ..... when you will receive the Date, Time and Duration of Call in the form:
82-06-29 11.33 183 SEC

1.3 Telex two digit code services offered via Eik

Two Digit Code	Service Description	Access Point	Notes
00	Automatic Calls	International switching centre Oslo, Norway	
11	International Operator	International Operating Position, Oslo	For manually connected telex calls.
12	International Information Service	International Service position, Oslo	For directory information only.
15	Radio Telegram	Rogaland Radio Norway	For telegrams to all addresses. Compile using CCITT F31 format.

Two Digit Code	Service Description	Access Point	Notes
*32	Medical Advice	Rogaland Radio Norway	If necessary select URGENCY priority. Rogaland Radio will relay message to Haukeland Hospital, Bergen, and also relay message back to ship.
33	Technical Assistance	EIK CES Norway	
36	Credit card Calls	International Operating position, Oslo	ITU cards only.
*43	Ships Position Reports	AMVER Centre New York	AMVER messages only.
91	Automatic Telex Test	EikCES	"Quick Brown Fox" test message.
*92	SES Commissioning Tests	Eik CES	

1.4 Make the most of the Service—a few hints

(i) Key the wanted number as a continuous sequence of digits without long pauses. Allow up to 90 seconds for the call to be connected and answerback received. If no answerback is received, attempt to take the answerback manually before you assume the call has failed.

(ii) If you receive service codes NC or OCC clear the connection immediately and attempt the call after one minute. If you receive the service codes NA, NCH or NP, check the called number from your records and make a further attempt. If ABS, CI, DER, INF or JFE are received, contact the information services for telex (2 digit code 12 or 14) to check the required number. See chapter VII.2 for a list of Service Codes.

(iii) *Examples*

(a) Call to Oslo
Key 005612345+

(b) Call to an SES in Pacific Ocean
Key 005821234567+

(c) Medical Assistance (select URGENCY priority)
Key 32+

1.5 Other Services

(i) Telex Letter

This service is provided by Rogaland Radio which is accessed by using Code 15 on the Telex service. Rogaland Radio will mail the telex letter to

*Free of charge to shipping

the addressee. It is essential that the format given below is strictly adhered to.

FORMAT REQUIRED FOR TELEX LETTER SERVICE

Legend: L/S=Letter Shift; L/F=Line Feed; C/R=Carriage Return

Preamble	12 L/S 10 L/F
	Obtain answerback
	Send your own ship's answerback code
	C/R 2 L/F
	SHIPNAME SES ID Date AAIC
	C/R 6 L/F
	—RTL—
	C/R L/F
Address	Mrs Diana Peterson
	Hotel de Chantilly
	CH-1201 GENEVE
	with EACH line separated by C/R and L/F
	C/R 6 L/F
Text	Best wishes for your birthday.
	Hope you will be coming to Rotterdam next month.
	Regards Sven
	C/R 3 L/F
	Obtain answerback
	Send your own ship's answerback code

NB: If the text exceeds 50 words the component sections should be separated by (50), a C/R and 3 L/F. The above format should be adhered to. While connected several telex letters may be transmitted.

(ii) Telegram

This service is provided by Rogaland Radio which is accessed by using Code 15 on the Telex service. When sending radiotelegrams the following CCITT F31 format should be used:

12 L/S 10 L/F
Obtain answerback code
Send your own ship's answerback code
1 C/R 3 L/F
SHIPNAME and CALL SIGN SES ID Date Time AAIC
2 C/R 3 L/F
Service Instructions
1 C/R 3 L/F
Paid service Instructions
1 C/R 1 L/F

Address 1st line Name of Addressee C/R L/F
2nd line House name or Number and Street C/R L/F
3rd line Destination as per Telegraphic Address List
1 C/R 3 L/F
Text
1 C/R 1 L/F at end of each line
Signature
1 C/R 3 L/F
Collation
1 C/R 1 L/F
Obtain answerback code
Send your own ship's answerback code
1 C/R 10 L/F

1.6 Calls to Ships fitted with VHF/MF/HF equipment

If you wish to call a ship fitted with VHF/MF/HF radiotelex equipment book the call via the International Telex Operator using two-digit code 11+. The operator will establish the call to the required ship via Rogaland Radio and call you back.

2 TELEPHONE SERVICE

2.1 General

(i) The Eik CES offers fully automatic telephone service TO, FROM and BETWEEN ships. It is also possible to establish telephone calls manually via the operator.

(ii) The Maritime Country Codes are
871—Atlantic Ocean Satellite
872—Pacific Ocean Satellite
873—Indian Ocean Satellite

(iii) Calls can also be connected to ships with VHF/MF/HF equipment—see para. 2.4.

2.2 Calls from Ships

If your ship is in the region covered by the Indian Ocean Satellite, follow the procedures for your terminal unit and select:

—*EIK CES IDENTIFICATION CODE 04*
—Routine Priority (if Medical Advice, Medical Assistance or Maritime Assistance is required select URGENCY priority).
—A Duplex channel with compandors.

—When you receive the confirmation signal
:lift the receiver
:listen for dial tone (a burst of tone lasting 1.5 seconds)
:Key 00 if using the automatic service followed by the "country" code and the required number. Key a 2 digit Code for Other Services.
:END SELECTION WITH A #

2.3 Telephone two digit code services offered via Eik

Two Digit Code	Service Description	Access Point	Notes
00	Automatic Calls	International Switching Centre Oslo, Norway	
11	International Operator	International Operating Position, Oslo	For international and national calls. Information about charges and booking of calls.
12	International Information Service	International Service Position, Oslo, Norway	For international and national directory information only
*32	Medical Advice	Rogaland Radio Norway	If necessary select URGENCY priority. Primary TELEX mode should be used for this service
33	Technical Assistance	Eik CES Norway	
34	Personal Calls	International Operating Position Oslo, Norway	Please advise the operator of the number you require and name the person. Also state the name of your ship and its identification (SES) number.
35	Collect Calls	International Operating Position Oslo, Norway	
36	Credit card Calls	International Operating Position, Oslo, Norway	ITU cards only.
37	Automatic Calls with information of chargeable duration (by telex message)	Eik CES Norway	Use of Code 37 instead of 000 initiates automatically a telex message back to the ship stating the telephone number dialled and the chargeable duration of the call in seconds.
*92	SES Commissioning Tests	Eik CES Norway	

*Free of charge to shipping

2.4 Calls to Ships fitted with VHF/MF/HF equipment

(i) Calls to ship with VHF/MF/HF equipment should be booked as a manual call via the 2 digit operator Code 11.

(ii) Calls from ships equipped with conventional radio equipment to your ship earth station will need to be ordered via the nearest coast radio station.

198 DISTRESS, URGENCY, SAFETY

1 GENERAL

Users are recommended to familiarise themselves with the contents of this chapter.

These services are provided to aid safety of life at sea and should be used in strict accordance with the I.T.U. Regulations. Calls/messages should be authorised by the person in charge.

If possible, use the telex mode of communication which provides a written record avoiding any misunderstanding that could arise from voice communication. Please use English language.

2 DISTRESS TELEX/TELEPHONE CALLS: SOS/MAYDAY

(i) To make a call

—Select Telex/Telephone mode of operation.

—Select the CES Identification Code required, e.g. 02 for Atlantic, 10 for Pacific (SESs using decimal numbering call "8") and 04 for Indian.

—Select DISTRESS PRIORITY.

—Initiate the call in accordance with the SES manufacturer's instructions for distress calls.

Note: For Goonhilly and Eik, selection of a Telex/Telephone number is NOT NECESSARY. You will be connected to the Marine Rescue Co-ordination Centre (MRCC) associated with the CES. For Singapore, see note 4 in para. 3.4.

(ii) If you do not receive a channel allocation within approximately 15 seconds, repeat the distress call. If this occurs again or you are unable to contact the MRCC, try the call through another CES.

(iii) For other MRCC's which are accessed using telex/telephone numbers, use the ROUTINE calls procedure.

(iv) When contact has been established, send a message which includes the following information:

—the distress signal. SOS for telex, MAYDAY for telephone, repeated 3 times.

—the name, callsign or other identification of the vessel in distress.

—the vessel's position.

—the nature of the distress and the type of assistance required.
—any other information which might help the rescue authorities.

3 URGENCY AND SAFETY SERVICES

Urgency and Safety services include MEDICAL ADVICE, MEDICAL ASSISTANCE and MARITIME ASSISTANCE

3.1 Medical Advice (Goonhilly, Singapore and Eik)

You can call the appropriate national authority using telex/telephone calling procedures:

—Select the CES Identification Code
02 Atlantic Ocean
10 Pacific Ocean
04 Indian Ocean
—Select duplex channel (with compandors for voice)
—Select URGENCY PRIORITY
Initiate the call
When you are clear to do so
:select 32+ for telex
:Key 32# *for telephone.*

You will then be connected to the appropriate medical authority, or to a Special Operator responsible for forwarding your message to the relevant medical authority.

—A medical message should be preceded by the word MEDICO and should contain the following information:
—name of ship
—ship's identification number, radio call sign
—ship's exact position
—condition of the ill or injured person
—symptoms
—any other relevant information.

Note

(i) For Medical Advice calls via Southbury and Santa Paula CES's do not use the 2 digit Code facility, but use the telex/telephone numbers shown in the list of MRCCs.

(ii) For CES's operating in a semi-automatic mode for telephony, tell the operator you have a MEDICO Call and you will be connected to the appropriate medical authority.

(iii) If you need to contact a medical authority other than those associated with a CES and you know its telex/telephone number, use the ROUTINE Calls Procedure.

(iv) For SINGAPORE, the medical message (telex) should be addressed to "RADIOMEDICAL SINGAPORE".

3.2 Medical Assistance (Goonhilly and Singapore)

If medical assistance is required, e.g. the condition of the injured person on board ship is such that he needs to be delivered ashore, use the calling procedures given in the MEDICAL ADVICE Section **3.1**, except in this instance

—Select 38+ for telex
—Key 38# for telephone.

3.3 Maritime Assistance (Goonhilly only)

(i) Use the following procedures detailed in the MEDICAL ADVICE Section **3.1**, except in this instance

—Select 39+ for telex
—Key 39# for telephone.

(ii) The message should be classified as URGENT and contain the following information:

—name of ship
—ship's Identification number and radio call sign
—ship's exact position
—particulars of urgency
—assistance required
—any relevant information

Note

(a) For TOW requests via Goonhilly CES, DO NOT use Code 39 but TELEX Lloyd's direct on 0051987321+ where assistance will be given.

(b) If you need to contact an authority other than those associated with a CES and you know its telex number, use the ROUTINE call procedure.

3.4 List of Marine Rescue Co-ordination Centres

COAST EARTH STATION		MARINE RESCUE CO-ORDINATION CENTRE		
ID CODE	NAME	AUTHORITY	LOCATION	INTERNATIONAL TELEPHONE AND TELEX NUMBERS
ATLANTIC OCEAN REGION				
01	Southbury	US Coast Guard	New York, NY USA	Tel. 1212668 7055 # Tlx. 230 127775+ AAB USCG RCC NYK
02	Goonhilly	*HM Coastguard	Falmouth UK	Tel. 44326 318102 # Tlx. 514 5560† AAB 45560 FALMCG G

End selection.

COAST EARTH STATION		MARINE RESCUE CO-ORDINATION CENTRE		
ID CODE	NAME	AUTHORITY	LOCATION	INTERNATIONAL TELEPHONE AND TELEX NUMBERS
PACIFIC OCEAN REGION				
01	Santa Paula	US Coast Guard	San Francisco, CA USA	Tel. 1415 5565500 # Tlx. 230 330427+ AAB COMPACAREA SFO
03	Ibaraki	*Maritime Safety Agency	Tokyo Japan	Tel. 81 35911663 # Tlx. 7202225193+ AAB 2225193 JMSAHQJ
10ø	Singapore	*Marine Department	Singapore	Tel. 65 2785 611 # Tlx. 872 5500+ AAB COMMS RS 25500
INDIAN OCEAN REGION				
03	Yamaguchi	*Maritime Safety Agency	Tokyo Japan	Tel. 813591 1663 # Tlx. 7202225193+ AAB 2225193 JMSAHQJ
04	Eik	*Rescue Co-ordination Centre, S. Norway	Stavanger Norway	Tel. 4745 17000 # Tlx. 5633163+ AAB 33163RCCSN

1. *For these authorities, you do not have to key the numbers to make a DISTRESS call.
2. In the case of Southbury and Santa Paula CES you may direct your DISTRESS Priority call to any RCC by selecting its telex or telephone number. If you do not select a telex or telephone number within 10 seconds, the call will be routed to a special operator who will connect you to the MRCC associated with the CES.
3. Should you fail to select a valid CES ID, the call will be automatically accepted by the Network Co-ordination Station for your ocean region.
4. ø SES's using decimal numbering call '8'. The Distress call will be automatically routed to Telecoms AFTN Operation Room and the distress message will be forwarded to the relevant authority for Ships in distress.

End selection.

199 DATA AND FACSIMILE

DATA AND FACSIMILE CALLS VIA GOONHILLY, SINGAPORE AND EIK

Ships which have data/facsimile terminals associated with their Ship Earth Station may operate to compatible equipment on shore or another SES equipped ship.

Data and facsimile are transmitted over telephone channels. Generally,

data speeds up to 2400 bits per second can be carried over telephone channels but higher speeds may be possible.

The procedures for making data and facsimile calls are similar to procedures for making an ordinary telephone call. To help safeguard the data/facsimile from being distorted, the compandor should be disabled by selecting the appropriate channel type before the commencement of transmission.

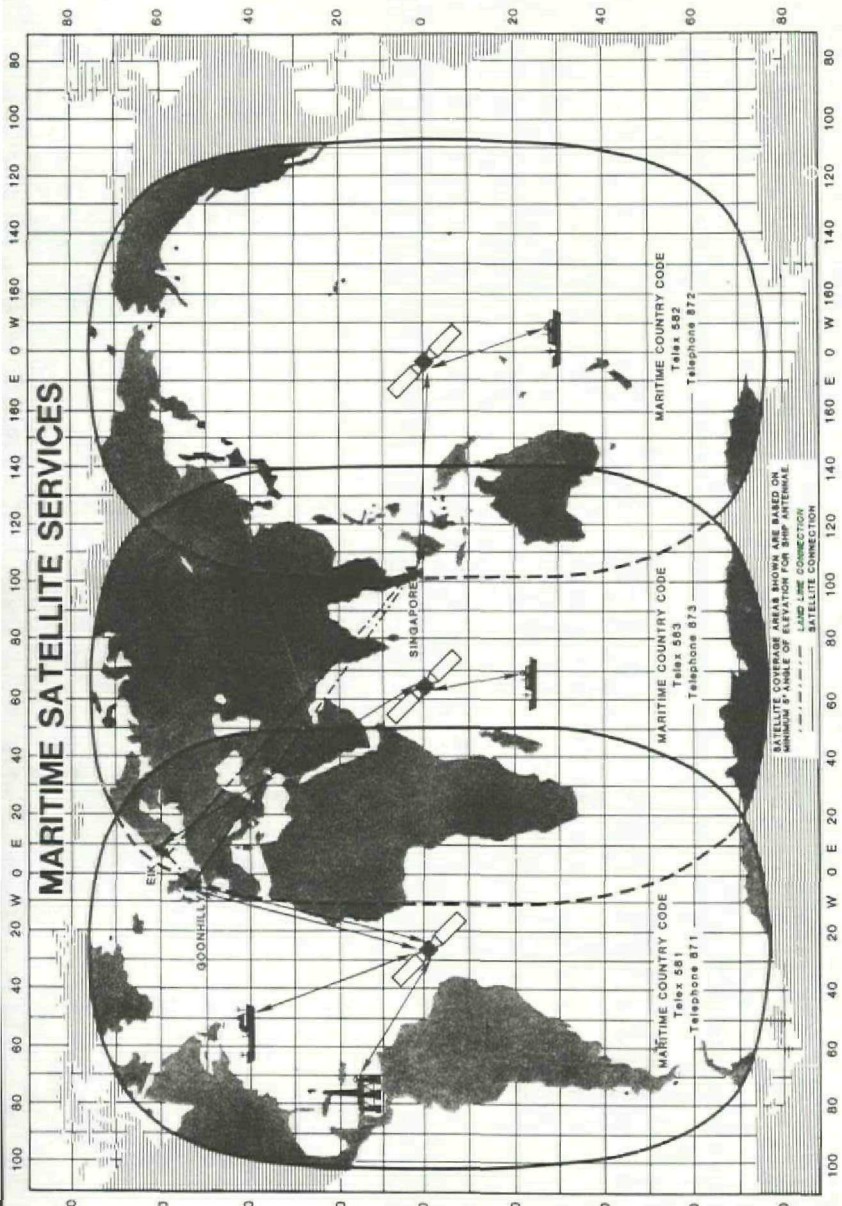
Both automatic and operator-assisted data and facsimile calls may be made.

The possible provision of a range of services up to 56 kbits using special circuits is being examined.

Access to the UK International Packet Switching Service (IPSS), UK Telecom Gold Service and UK Prestel Service are available via Goonhilly CES.

200 REFERENCE INFORMATION

1 COVERAGE AREAS



2 TELEX CODES AND ABBREVIATIONS

ABS	Absent subscriber/teleprinter switched off
ANUL	Delete
BK	I cut off
CFM	Please confirm/I confirm
CI*	Conversation impossible
COL	Collation please/I collate
CRV	Do you receive well?/I receive well
DER	Out of order
DF	You are in communication with the called subscriber
FMT	Format error
GA	Go ahead/may I go ahead?
INF	Subscriber temporarily unobtainable, call the information service
ITL	I transmit later
JFE*	Office closed because of holiday
MNS	Minutes
MOM	Please wait/I am waiting
MUT	Mutilated
NA	Correspondence with this subscriber is not admitted
NC	No circuits
NCH	Subscriber's number has been changed
NI	No line identification available
NP	The called party is not, or is no longer, a subscriber
NR	Number . . .
OCC	Subscriber engaged
OK	Agreed/do you agree?
TTT†	Stop your transmission
PPR	Paper
R	Received
RAP	I shall call you back
RPT	Repeat/I repeat
RSBA	Retransmission still being attempted
SVP	Please
TAX	What is the charge?/the charge is . . .
TEST MSG	Please send a test message
THRU	You are in communication with a telex position
TPR	Teleprinter
W	Words
WRU	Who are you?
XXXXX	Error

*This code expression is intended to be generated only by automatic means and not normally used in service correspondence between operators.
†To be repeated until the transmission is stopped.

3 DIALLING CODES FOR FROM SHIP CALLS

COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Afghanistan	79	O	A	O			O	O	O
Alaska	200	A		A	1	907	A		A
Albania	604	A	O	O			O	O	O
Algeria	408	A	A	A	213		A	A	A
American Samoa	770	A	A	O			O	O	O
Andorra	590	A	O	A	330		A	A	A
					78				
Angola	991	A	A	O	244		A	O	A
Anguilla	391	A	A	A	1809		A	A	A
					497				
Antigua	393	A	A	A	1809		A	A	
					46				
Argentine Republic	33	A	A	A	54		A	A	A
Bahia Blanca						91			
Buenos Aires						1			
La Plata						21			
Mar del Plata						23			
Rosario						41			
Santa Fé						42			
Australia	71	A	A	A	61		A	A	A
Adelaide						8			
Brisbane						7			
Cairns						70			
Canberra						62			
Darwin						89			
Geelong						52			
Hobart						02			
Melbourne						3			
Newcastle						49			
Perth						9			
Sydney						2			
Austria	47	A	A	A	43		A	A	A
Innsbruck						5222			
Salzburg						622			
Vienna						222			
Azores (Portugal)	404	A	A	A	351		A	A	A

NOTE: A indicates that an automatic service is available to country of destination.
O indicates that the call should be placed via the international operator.

COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Bahamas	297	A	A	A	1809		A	O	
Freeport						352			
George Town						336			
Nassau						32			
Bahrain	490	A	A	A	973		A	A	A
Bangladesh	780	A	A	A			A	O	O
Barbados	392	A	A	A	1809		A	A	
					42				
Belgium	46	A	A	A	32		A	A	A
Antwerp						3			
Bruges—Zeebrugge						50			
Brussels						2			
Ghent						91			
Liege						41			
Ostende						59			
Belize	371	A	A	A	501		O	A	A
Benin	972	A	A	A	229		A	O	A
Bermuda	290	A	A	A	1809		A	A	A
					29				
Bolivia	309	A	O	O	591		O	A	A
Bolivia (Entel)	309	A	O						
Botswana	962	A	A	A	267		A	O	A
Brazil	38	A	A	A	55		A	A	A
Belem						91			
Brasilia						61			
Natal						84			
Recife						81			
Rio de Janeiro						21			
Salvador						71			
Sao Paulo						11			
Brunei	809	A	A	A	673		A	A	A
Bulgaria	67	A	A	A	359		O	O	A
Burma	83	A	A	A	95		A	O	A
Burundi	903	A	A	O	257		O	O	A
Cameroon	970	A	A	A	237		A	O	A
Canada (except TWX)	21	A	A		1		A	A	A
(TWX)	26	A	A	A					
Calgary—Edmonton						403			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Halifax						902			
Hamilton						416			
Kingston						613			
Montreal						514			
Ottawa						613			
Quebec						418			
St Johns (NF)						709			
Toronto						416			
Vancouver						604			
Victoria BC						604			
Winnipeg						204			
Canary Islands (Spain)	52	A	A	A	34		A	A	A
Cape Verde	993	A	A	O			O	O	O
Carriacou	395	A					O		
Cayman Islands	293	A	A	A	1809		A	A	
					94				
Central African Republic	971	O	O	A			O	O	O
Chad		O	O	O			O	O	O
Chile	34	A	A	A	56		A	A	A
Talcahuano						42			
Valparaiso						31			
China	85	A	A	A			O	O	O
Colombia	35	A	A	A	57		A	A	A
Comoros	994	O	O	A			O	O	O
Congo People's Rep.	981	A	O	O	242		O	O	A
Cook Islands	772	A	A	A	682		A	A	A
Costa Rica	376	A	A	A	506		A	A	A
Cuba	28	A	A	A	53		A	O	A
Havana						7			
Cyprus	605	A	A	A	357		A	A	O
Larnaca						41			
Limassol						51			
Nicosia						21			
Paphos						61			
Czechoslovakia	66	A	A	A	42		A	A	A
Bratislava						7			
Prague						2			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Denmark	55	A	A	A	45		A	A	A
Copenhagen (inner)						1			
Copenhagen (outer)						2			
Esbjerg						5			
Odense						9			
Djibouti	979	A	A	O	253		A	A	A
Dominica	394	A	A	A	1809		A	A	
					449				
Dominican Republic ITT	202	A	A	A	1809		A	O	A
RCH	201	A	A						
Ecuador Nos. beg. 2 & 7	30802	A	A	A	593		A	A	A
other nos.	30804								
Egypt	91	A	A	A	20		A	A	A
Alexandria						3			
Cairo						2			
Port Said						66			
Suez						62			
El Salvador	373	A	A	A	503		A	A	A
Ethiopia	980	A	A	A	251		A	O	A
Falkland Islands &									
Dependencies	306	A	A	A			O	O	
Faroe Islands (Denmark)	502	A	A	A	45		A	A	A
Fiji	701	A	A	A	679		A	A	O
Finland	57	A	A	A	358		A	A	A
Helsinki						0			
Kotka						52			
Rauma						38			
Turku-Abo						21			
Vaasa						61			
France	42	A	A	A	33		A	A	A
Bordeaux						56			
Boulogne						21			
Brest						98			
Calais						21			
Cannes						93			
Cherbourg						33			
Dieppe						35			
Le Havre						35			
Marseille						91			
Nantes						40			
Nice						93			
Paris (city)						1			
Rouen						35			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
France									
Strasbourg						88			
Toulon						94			
French Guiana	300	A	A		5943		A	O	A
French Polynesia (Tahiti)	702	A	A	A	689		A	A	A
Gabon	973	A	A	A	241		A	A	A
Gambia	996	A	A	A	220		A	A	A
German Democratic Republic	69	A	A	A	37		A	A	A
Berlin (East)						2			
Dresden						51			
Leipzig						41			
Magdeburg						91			
Rostock						81			
Germany (Federal Republic of)	41	A	A	A	49		A	A	A
Berlin (West)						30			
Bonn						228			
Bremen						421			
Bremerhaven						471			
Cologne						221			
Duisburg						203			
Dusseldorf						211			
Frankfurt (Main)						69			
Hamburg						40			
Kiel						431			
Krefeld						2151			
Lubeck						451			
Munich						89			
Nuremburg						911			
Osnabruck						541			
Stuttgart						711			
Ghana	94	A	A	A	233		A	O	O
Gilbraltar	405	A	A	A	350	—	A	A	A
Greece	601	A	A	A	30		A	A	A
Alexandroupolis						551			
Athens—Piraeus—Elefsis						1			
Corfu (City)						661			
Halkis						221			
Hania						821			
Kavala						51			
Lavissa						41			
Patrai						61			

NOTE: A indicates that an automatic service is available to country of destination.
O indicates that the call should be placed via the international operator.

COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Greece									
Rhodes						241			
Thessaloniki						31			
Greenland	503	A	O	A	229		A	A	
Grenada	395	A	A	A	1809		A	A	
					444				
Guadeloupe	299	A	A	A	590		A	A	A
Guam	700	A	A	A	671		A	A	A
Guatemala	372	A	A	A	502		A	A	A
Guinea	995	A	O	A			O	O	O
Guinea-Bissau	999	O	O	O			O	O	O
Guyana	295	A	A	A	592		A	A	A
Haiti	203	A	A	A	509		A	A	A
Hawaii (RCA)	704	A	A		808		A	A	A
(WUI)	708		A						
(WUH)	709		A						
(AACR)	705		A						
DATATEL	773		A						
Honduras	374	A	O	A	504		A	A	A
Hong Kong	802	A	A	A	852		A	A	A
Hong Kong						5			
Kowloon						3			
New Territories						0			
Hungarian People's Republic	61	A	A	A	36		A	A	A
Iceland	501	A	A	A	354		A	A	A
Reykjavik						1			
India	81	A	A	A	91		A	A	O
Bombay						22			
New Delhi						11			
Indonesia	73	A	A	A	62		A	A	A
Bandung						22			
Jakarta						21			
Malang						341			
Padang						75			
Iran	88	A	A	A	98		A	A	A
Iraq	491	A	A	A	964		A	A	A
Ireland	500	A	A	A	353		A	A	A
Israel	606	A	A	A	972		A	A	A
Haifa						4			
Jerusalem						2			
Tel-Aviv						3			

NOTE: A indicates that an automatic service is available to country of destination.
O indicates that the call should be placed via the international operator.

COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Italy	43	A	A	A	39		A	A	A
Bari						80			
Catania						95			
Genoa						10			
Livorno						586			
Messina						90			
Milan						2			
Naples						81			
Palermo						91			
Rome						6			
Salerno						89			
San Remo						184			
Taranto						99			
Trieste						40			
Venice						41			
Ivory Coast	983	A	A	A	225		A	A	A
Jamaica	291	A	A	A	1809		A	A	A
Japan (KDD)	72	A	A	A	81		A	A	A
(NTT)	720								
Kawasaki						44			
Kobe						78			
Nagoya						52			
Osaka						6			
Tokyo						3			
Yokohama						45			
Jordan	493	A	A	A	962		A	O	A
Kenya	987	A	A	A	254		A	A	A
Mombasa						11			
Nairobi						2			
Korea (Republic of)	801	A	A	A	82		A	A	A
Korea (Democratic People's Republic of)	8994	A	A	A			O	O	
Kuwait	496	A	A	A	965		A	A	O
Lebanon	494	A	A	A	961		A	O	A
Lesotho	963	A	A	A	266		A	A	O
Liberia	997	A	A	A	231		O	O	O
Libya	901	A	A	A	218		A	O	O
Benghazi						61			
Tripoli						21			
Luxembourg	402	A	A	A	352		A	A	A

NOTE: A indicates that an automatic service is available to country of destination.
O indicates that the call should be placed via the international operator.

COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Macao	808	A	A	A	853		A	A	A
Madagascar	986	A	O	A	261		A	O	A
Madeira Islands (Portugal)	404	A	A	A	2594	91	A	A	A
Malawi	904	A	A	O	265		A	A	A
Malaysia	84	A	A	A	60		A	A	A
Kota Kinabalu						88			
Kuala Lumpur						3			
Kuching						82			
Malacca						6			
Penang						4			
Maldives	896	A	A	A	960	A	A	A	
Mali	985	A	A	A	223		O	A	A
Malta (Telemalta)	406	A	O	A	356		A	A	A
Mariana Islands Guam	700	A	A	A	671		A	A	A
Saipan	760	A	A						
Martinique	298	A	A	A	596		A	A	A
Mauritania	974	O	O	A			O	O	O
Mauritius	966	A	A	A	230		A	A	A
Mexico	22	A	A	A	52		A	A	A
Acapulco						748			
Midway Island							A	A	
Monaco	42	A	A	A	33	93	A	A	A
Monserrat	396	A	A	O	491		A	A	
					1809				
					491				
Morocco	407	A	A	A	212		A	O	A
Casablanca					—				
Tangier					9				
Mozambique	992	O	A	A	258		A	O	A
Namibia (South West Africa)	908	A	A	A	264		A	A	O
Nauru	775	A	A	O	674	—	A	A	A
Nepal	891	A	A	O	977		A	O	A
Netherlands	44	A	A	A	31		A	A	A
Amsterdam						20			
Eindhoven						40			
Enschede						53			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
's Gravenhage						70			
Hague						70			
Hook of Holland						1747			
Rotterdam						10			
Utrecht						30			
Netherlands Antilles	390	A	A	A	599		A	A	A
Aruba						8			
Bonaire						7			
Curaçao						9			
New Caledonia and Dependencies	706	A	A	O	687		A	A	A
New Guinea (Papua)	703	A	A	A	675		A	A	A
New Hebrides (Vanuatu)	771	A	A	A			O	O	
New Zealand	74	A	A	A	64		A	A	A
Auckland						9			
Christchurch						3			
Dunedin						24			
Port Chalmers						2472			
Tauranga						75			
Wellington						4			
Nicaragua	375	A	A	A	505		A	A	A
Niger	975	A	O	A	227		A	A	A
Nigeria	905	A	A	A	234		A	A	A
Ibadan						22			
Lagos						1			
Norway	56	A	A	A	47		A	A	A
Alesund						71			
Bergen						5			
Bodo						81			
Drammen						3			
Farsund						43			
Floroe						57			
Fredrikstad						32			
Halden						31			
Hammerfest						84			
Kirkenes						85			
Kongsberg						3			
Kristiansand S						42			
Kristiansund N						73			
Larvik						34			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Mandal						43			
Molde						72			
Narvik						82			
Odda						54			
Oslo						2			
Porsgrunn						35			
Sandefjord						34			
Sarpsborg						31			
Stavanger						4			
Steinkjer						7			
Svalbard						33			
Trondheim						7			
Tonsberg						33			
Vadso						85			
Vardo						85			
Oman	498	A	A	A	968		A	A	A
Pakistan	82	A	A	A	92		A	O	A
Islamabad						51			
Karachi						21			
Rawalpindi						51			
Panama									
TRT	377	A	A	A	507	—	A	A	A
AACR									
LTT	379	A	A						
Paraguay	305	A	A	A	595		A	A	A
Peru	36	A	A	A	51		A	A	A
Philippines	75	A	A	A	63		A	A	A
Capwire	751	A	A	A					
Philcom	752	A	A	A					
GMCR	754	A	A	A					
ETPI	756	A	A	A					
PTT	758	A	A						
Manila						2			
Poland	63	A	A	A	48		A	A	A
Gdansk—Gdynia						58			
Krakow						94			
Syczein						91			
Warsaw						22			
Portugal	404	A	A	A	351		A	A	
Lisbon						1			
Oporto						2			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Puerto Rico (RCA)	205	A	A	A			O	O	
(AACR)	206	A	A						
(C&W & WUI)	207	A	A						
(PRCA)	209	A	A						
Qatar	497	A	A	A	974		A	A	A
Reunion	961	A	A	A	262		A	O	A
Romania	65	A	A	A	40		A	A	A
St. Lucia	398	A	A	A	1809		A	A	
					45				
St. Maarten	390	A	A	A	599		O	A	O
St. Pierre and Miquelon	204	A	A	O	1594		O	O	A
St. Vincent & Bequia	399	A	A	A	1809		A	A	
					45				
Samoa (Western)	779	A	A	A	685		A	A	
Samoa (American)	770	A	A	A	684		A	A	A
Saudi Arabia (Kingdom of)	495	A	A	A	966		A	A	A
Jeddah						2			
Mecca						2			
Riyadh						1			
Senegal	906	A	A	A	221		O	A	A
Seychelles	965	A	A	A	248		A	A	A
Sierra Leone	998	A	A	A	232		A	A	A
Singapore	87	A	A	A	65	—	A	A	A
Solomon Islands	778	A	A	A	677		A	A	A
Somali Dem. Rep.	900	A	A	A	252		A	O	A
South Africa	95	A	A	A	27		A	A	A
Cape Town						21			
Durban						31			
East London						431			
Johannesburg						11			
Port Elizabeth						41			
Pretoria						12			
Spain (inc. Balearic Is.)	52	A	A	A	34		A	A	A
Algeciras						56			
Alicante						65			
Barcelona						3			
Bilbao						4			
Cadiz						56			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Cartegena						68			
Ibiza						71			
Las Palmas						28			
Madrid						1			
Malaga						52			
Palma (Majorca)						71			
Santa Cruz (Tenerife)						22			
Santander						42			
Seville						54			
Valencia						6			
Sri Lanka	803	A	A	A	94		A	A	A
Sudan	984	A	A	A			A	A	O
Surinam	304	A	A	A	597		A	A	A
Swaziland	964	A	A	A	268		A	A	A
Sweden	54	A	A	A	46		A	A	A
Gothenburg						31			
Helsingborg						42			
Linkoping						13			
Malmo						40			
Norrköping						11			
Stockholm						8			
Vasteras						21			
Switzerland (inc. Liechtenstein, Principality of)	45	A	A	A	41		A	A	A
Basle						61			
Berne						31			
Geneva						22			
Interlaken						36			
Lausanne						21			
Liechtenstein						75			
Lucerne						41			
Zurich						1			
Syria Arab Rep.	492	A	A	A	963		A	A	A
Taiwan	785	A	A	A	886		A	A	A
Tanzania (Mainland)	989	A	A	A	255		A	A	O
Thailand	86	A	A	A	66		A	A	A
Togo	977	A	A	A	228		A	O	A
Tonga	777	A	A	A	676		A	A	A
Trinidad & Tobago	294	A	A	A	1809		A	A	A

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Tunisia	409	A	A	A	216		A	A	A
Sousse						3			
Tunis						1			
Turkey	607	A	A	A	90		A	A	A
Ankara						41			
Istanbul						1			
Izmir						51			
Turks & Caicos Islands	296	A	A	O	1809	946	A	A	O
Uganda	988	A	A	A	256		A	A	A
United Arab Emirates									
Abu Dhabi	893	A	A		971	2	A	A	A
Ajman	893	A	A			6			
Dubai	893	A	A	A		4			
Fujairah	893	A	A			70			
Ras Al Khaimah	893	A	A			77			
Sharjah	893	A				6			
Um Al Qaiwain	893	A				6			
United Kingdom of Great Britain and Northern									
Ireland	51	A	A	A	44		A	A	A
Aberdeen						224			
Belfast						232			
Birmingham						21			
Bristol						272			
Cardiff						222			
Coventry						203			
Dover						304			
Dundee						382			
Edinburgh						31			
Fishguard						348			
Folkestone						303			
Glasgow						41			
Gt Yarmouth						493			
Grimsby						472			
Hull						482			
Leeds						532			
Liverpool						51			
London						1			
Manchester						61			
Newhaven						7912			
Newport (Gwent)						633			
Newcastle						632			
Perth						738			
Plymouth						752			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
Portsmouth						705			
Preston						772			
Southampton						703			
Sunderland						783			
Whitehaven						946			
Wolverhampton						902			
Upper Volta	978	A	A	A			O	O	O
Uruguay	32	A	O	A	598		A	A	A
Maldonado						42			
Montevideo						2			
Paysandu						722			
USA		A	A	A	1		A	A	A
(except TWX)	23	A	A						
(TWX)	255	A	A						
(Alaska)	200			A					
Atlanta						404			
Atlantic City						609			
Baltimore						301			
Boston						617			
Chicago						312			
Cleveland						216			
Columbus (Ohio)						614			
Dallas						214			
Detroit						313			
Houston						713			
Kansas City						816			
Los Angeles						213			
Memphis						901			
Miami (Fla)						305			
Milwaukee						414			
New Orleans						504			
New York City						212			
Norfolk						804			
Oakland						415			
Philadelphia						215			
Pittsburgh						412			
Portland						503			
Richmond CA						415			
San Diego						619			
San Francisco						415			
Seattle						206			
Toledo						419			
Washington DC						202			

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COUNTRY OF DESTINATION OF CALL	TELEX				TELEPHONE				
	COUNTRY CODE	GOONHILLY 02	SINGAPORE 10	EIK 04	COUNTRY CODE	AREA CODE	GOONHILLY 02	SINGAPORE 10	EIK 04
USSR	64	A	A	A	7		A	A	O
Kiev						044			
Leningrad						812			
Minsk						017			
Moscow						095			
Vanuatu (New Hebrides)	771	A	A	A	678		A	O	A
Vatican City	504	A	A	A	39		A	A	A
Venezuela	31	A	A	A	58		A	A	A
Barquisimeto						51			
Caracas						2			
Maracaibo						61			
Puerto Cabello						42			
Valencia						41			
Vietnam		O	O	O			O	O	O
Virgin Islands (USA)	208	A	O	A			O	O	O
Virgin Islands (British)	292	A	O	A	1809		A	A	A
					49				
Yemen Arab Republic	895	A	O	A	967		A	A	A
Hadeidah						3			
Yemen P.D.R.	806	A	A	A	969		O	A	
Yugoslavia	62	A	A	A	38		A	A	A
Dubrovnik						50			
Zaire	982	A	O	O	243		O	O	A
Zambia	902	A	A	A	260		A	A	A
Zimbabwe	907	A	A	A	263		A	A	O

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4 ENQUIRIES

For further information on Maritime Satellite Communication Services please contact–

4.1 Atlantic Ocean Satellite Region

British Telecom International
Maritime and Aeronautical Radio (Satellite Section)
43 Bartholomew Close
London EC1A 7HP
United Kingdom
Telephone: National: 01-936 4996
International: +44 936 4996
Telex: 916554 BTI MR G

4.2 Pacific Ocean Satellite Region

The Departmental Manager
Business Telecommunications Sales
Telecoms Customer Services Centre (Comcentre Branch)
31, Exeter Road
Singapore 0923
Republic of Singapore
Telephone: National: 734 3344
International: +65 734 3344
Telex: RS 333 11

4.3 Indian Ocean Satellite Region

Norwegian Telecommunications Administration
P.O.B. 6701
St Olavs Pl.,
Oslo, Norway
Telephone: National: 0248 8428
International: +47 248 8428
Telex: 71203

4.4 Use of Ship Earth Stations within Harbour Limits and Territorial Waters

Refer to the Telecommunications Administration of the harbour or territorial waters concerned for details.

APPENDIX 1

International Morse Code Signals

LETTERS

a · —
â · — · —
á or å · — — · —
b — · · ·
c — · — ·
ch — — — —
d — · ·
e ·
é · · — · ·
f · · — ·
g — — ·
h · · · ·
i · ·
j · — — —
k — · —
l · — · ·
m — —
n — ·
ñ — — · — —
o — — —
ö — — — ·
p · — — ·
q — — · —
r · — ·
s · · ·
t —
u · · —
ü · · — —
v · · · —
w · — —
x — · · —
y — · — —
z — — · ·

Spacing and length of the signals:
(a) a dash is equal to three dots;
(b) the space between the signals forming the same letter is equal to one dot;
(c) the space between two letters is equal to three dots;
(d) the space between two words is equal to seven dots.

App. 1

FIGURES

1 · – – – –
2 · · – – –
3 · · · – –
4 · · · · –
5 · · · · ·
6 – · · · ·
7 – – · · ·
8 – – – · ·
9 – – – – ·
0 – – – – –

In routine repetitions, if there can be no misunderstanding in consequence of the presence together of figures and letters or groups of letters, figures may be rendered by means of the following abbreviated signals:

1 · –
2 · · –
3 · · · –
4 · · · · –
5 · · · · ·
6 – · · · ·
7 – · · ·
8 – · ·
9 – ·
0 –

PUNCTUATION AND OTHER SIGNS

Full stop (period)	(.)· – · – · –
Comma	(,)– – · · – –
Colon or division sign	(:)– – – · · ·
Question mark (note of interrogation or request for repetition of a transmission not understood)	(?)· · – – · ·
Apostrophe	(')· – – – – – ·
Hyphen or dash or subtraction sign	(-)– · · · · –
Fraction bar or division sign	(/)– · · – ·
Lefthand bracket (parenthesis)	[(]– · – – ·
Righthand bracket (parenthesis)	[)]– · – – · –
Inverted commas (quotation marks) (before and after the words)	(" ")· – · · – ·
Double hyphen	(=)– · · · –

Understood	···–·
Error	·····
Cross or addition sign	·–·–·
Invitation to transmit	–·–
Wait	·–···
End of Work	···–·–
Commencing signal	–·–·–
Multiplication sign	–··–

In order to avoid all possible confusion in transmitting fractional numbers, the fraction must be preceded or followed, as the case may be, by a dash.

Examples: for 2% transmit 2-0/0 and not 20/0
for $4\frac{1}{2}$% transmit 4-1/2-0/0 and not 41/20/0
for $\frac{3}{4}8$ transmit 3/4-8 and not 3/48

The minute sign (′) and the second sign (″) shall be transmitted by means of the apostrophe sign, transmitted once for the minute sign and twice for the second sign.

APPENDIX 2

Abbreviations and Signals to be used for Radiocommunications

PART I—Q CODE

INTRODUCTION

1 The series of groups listed in this Appendix range from QOA to QUZ.

2 The QOA to QQZ series are reserved for the maritime mobile service.

3 Certain Q code abbreviations may be given an affirmative or negative sense by sending, immediately following the abbreviation, the letter C or the letters NO (in radiotelephony spoken as: CHARLIE or NO).

4 The meanings assigned to Q code abbreviations may be amplified or completed by the appropriate addition of other groups, call signs, place names, figures, numbers, etc. It is optional to fill in the blanks shown in parentheses. Any data which are filled in where blanks appear shall be sent in the same order as shown in the text of the following tables.

5 Q code abbreviations are given the form of a question when followed by a question mark in radiotelegraphy and RQ (ROMEO QUEBEC) in radiotelephony. When an abbreviation is used as a question and is followed by additional or complementary information, the question mark (or RQ) should follow this information.

6 Q code abbreviations with numbered alternative significations shall be followed by the appropriate figure to indicate the exact meaning intended. This figure shall be sent immediately following the abbreviation.

7 All times shall be given in Coordinated Universal Time (U.T.C.) unless otherwise indicated in the question or reply.

8 An asterisk * following a Q code abbreviation means that this signal has a meaning similar to a signal appearing in the International Code of Signals.

ABBREVIATIONS AVAILABLE FOR THE MARITIME MOBILE SERVICE

A. List of Abbreviations in Alphabetical Order

Abbreviation	Question	Answer or Advice
QOA	Can you communicate by radiotelegraphy (500 kHz)?	I can communicate by radiotelegraphy (500 kHz).
QOB	Can you communicate by radiotelephony (2182 kHz)?	I can communicate by radiotelephony (2182 kHz).
QOC	Can you communicate by radiotelephony (Channel 16—156.80 MHz)?	I can communicate by radiotelephony (Channel 16—156.80 MHz).
QOD	Can you communicate with me in . . . 0. Dutch 5. Italian 1. English 6. Japanese 2. French 7. Norwegian 3. German 8. Russian 4. Greek 9. Spanish?	I can communicate with you in . . . 0. Dutch 5. Italian 1. English 6. Japanese 2. French 7. Norwegian 3. German 8. Russian 4. Greek 9. Spanish.
QOE	Have you received the safety signal sent by . . . (*name and/or call sign*)?	I have received the safety signal sent by . . . (*name and/or call sign*)
QOF	What is the commercial quality of my signals?	The quality of your signals is . . . 1. not commercial 2. marginally commercial 3. commercial.
QOG	How many tapes have you to send?	I have . . . tapes to send.
QOH	Shall I send a phasing signal for . . . seconds?	Send a phasing signal for . . . seconds
QOI	Shall I send my tape?	Send your tape.
QOJ	Will you listen on . . . kHz (*or* MHz) for signals of emergency position-indicating radiobeacons?	I am listening on . . . kHz (*or* MHz) for signals of emergency position-indicating radiobeacons.
QOK	Have you received the signals of an emergency position-indicating radiobeacon on . . . kHz (*or* MHz)?	I have received the signals of an emergency position-indicating radiobeacon on . . . kHz (*or* MHz).
QOL	Is your vessel fitted for reception of selective calls? If so, what is your selective call number or signal?	My vessel is fitted for the reception of selective calls. My selective call number is . . .
QOM	On what frequencies can your vessel be reached by a selective call?	My vessel can be reached by a selective call on the following frequency/ies . . . (*periods of time to be added if necessary*).
QOO	Can you send on any working frequency?	I can send on any working frequency.

Abbreviation	Question	Answer or Advice
QOT	Do you hear my call, what is the approximate delay in minutes before we may exchange traffic?	I hear your call; the approximate delay is . . . minutes.
QRA	What is the name of your vessel (*or* station)?	The name of my vessel (*or* station) is . . .
QRB	How far approximately are you from my station?	The approximate distance between our stations is . . . nautical miles (*or* kilometres).
QRC	By what private enterprise (*or* State Administration) are the accounts for charges for your station settled?	The accounts for charges of my station are settled by the private enterprise . . . (*or* State Administration).
QRD	Where are you bound for and where are you from?	I am bound for . . . from . . .
QRE	What is your estimated time of arrival at . . . (*or* over . . .) (*place*)?	My estimated time of arrival at . . . (*or* over . . .) (*place*) is . . . hours.
QRF	Are you returning to . . . (*place*)?	I am returning to . . . (*place*) (*or*) Return to . . . (*place*).
QRG	Will you tell me my exact frequency (*or* that of . . .)?	Your exact frequency (*or* that of . . .) is . . . kHz (*or* MHz).
QRH	Does my frequency vary?	Your frequency varies.
QRI	How is the tone of my transmission?	The tone of your transmission is . . . 1. good 2. variable 3. bad.
QRJ	How many radiotelephone calls have you to book?	I have . . . radiotelephone calls to book.
QRK	What is the intelligibility of my signals (*or* those of . . . (*name and or call sign*))?	The intelligibility of your signals (*or* those of . . . (*name and/or call sign*)) is . . . 1. bad 2. poor 3. fair 4. good 5. excellent
QRL	Are you busy?	I am busy (*or* I am busy with . . . (*name and/or call sign*)). Please do not interfere.
QRM	Is my transmission being interfered with?	Your transmission is being interfered with . . . (1. nil 2. slightly 3. moderately 4. severely 5. extremely).
QRN	Are you troubled by static?	I am troubled by static (1. nil 2. slightly 3. moderately

Abbreviation	Question	Answer or Advice
		4. severely 5. extremely).
QRO	Shall I increase transmitter power?	Increase transmitter power.
QRP	Shall I decrease transmitter power?	Decrease transmitter power.
QRQ	Shall I send faster?	Send faster (. . . words per minute).
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at . . . words per minute.
QRS	*Shall I send more slowly?*	*Send more slowly* (. . . words per minute).
QRT	Shall I stop sending?	Stop sending.
QRU	Have you anything for me?	I have nothing for you.
QRV	Are you ready?	I am ready.
QRW	Shall I inform . . . that you are calling him on . . . kHz (*or* MHz)?	Please inform . . . that I am calling him on . . . kHz (*or* MHz).
QRX	When will you call me again?	I will call you again at . . . hours (on . . . kHz (*or* MHz)).
QRY	What is my turn? (*Relates to communication.*)	Your turn is Number . . . (*or according to any other indication*). (*Relates to communication.*)
QRZ	Who is calling me?	You are being called by . . . (on . . . kHZ (*or* MHz)).
QSA	What is the strength of my signals (*or* those of . . . (*name and/or call sign*))?	The strength of your signals (*or* those of . . . (*name and/or call sign*)) is . . . 1. scarcely perceptible 2. weak 3. fairly good 4. good 5. very good.
QSB	Are my signals fading?	Your signals are fading.
QSC	Are you a low traffic ship station?	I am a low traffic ship station.
QSD	Are my signals mutilated?	Your signals are mutilated.
QSE*	What is the estimated drift of the survival craft?	The estimated drift of the survival craft is . . . (*figures and units*).
QSF*	Have you effected rescue?	I have effected rescue and am proceeding to . . . base (with . . . persons injured requiring ambulance.)
QSG	Shall I send . . . telegrams at a time?	Send . . . telegrams at a time.
QSH	Are you able to home with your direction-finding equipment?	I am able to home with my direction-finding equipment (on . . . (*name and/or call sign*)).
QSI		I have been unable to break in on your transmission. *or* Will you inform . . . (*name and/or call sign*) that I have been unable

Abbreviation	Question	Answer or Advice
		to break in on his transmission (on . . . kHz (*or* MHz)).
QSJ	What is the charge to be collected to . . . including your internal charge?	The charge to be collected to . . . including my internal charge is . . . francs.
QSK	Can you hear me between your signals and if so can I break in on your transmission?	I can hear you between my signals; break in on my transmission.
QSL	Can you acknowledge receipt?	I am acknowledging receipt.
QSM	Shall I repeat the last telegram which I sent you (*or* some previous telegram)?	Repeat the last telegram which you sent me (*or* telegram(s) number(s) . . .).
QSN	Did you hear me (*or* . . . (*name and or call sign*)) on . . . kHz (*or* MHz)?	I did hear you (*or* . . . (*name and/or call sign*)) *on* . . . kHz (*or* MHz).
QSO	Can you communicate with . . . (*name and/or call sign*) direct (*or* by relay)?	I can communicate with . . . (*name and/or call sign*) direct (*or* by relay through . . .).
QSP	Will you relay to . . . (*name and/or call sign*) free of charge?	I will relay to . . . (*name and/or call sign*) free of charge.
QSQ	Have you a doctor on board (*or* is . . .) (*name of person*) on board)?	I have a doctor on board (*or* . . . (*name of person*) is on board).
QSR	Shall I repeat the call on the calling frequency?	Repeat your call on the calling frequency; did not hear you (*or* have interference).
QSS	What working frequency will you use?	I will use the working frequency . . . kHz (*or* MHz) (in the high frequency bands normally only the last three figures of the frequency need be given).
QSU	Shall I send or reply on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .)?	Send or reply on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .).
QSV	Shall I send a series of V's (*or* signs) for adjustment on this frequency (*or* on . . . kHz (*or* MHz))?	Send a series of V's (*or* signs) for adjustment on this frequency (*or* on . . . kHz (*or* MHz)).
QSW	Will you send on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .)?	I am going to send on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .).
QSX	Will you listen to . . . (*name and/or call sign(s)*) on . . . kHz (*or* MHz), or in the bands . . ./channels . . .?	I am listening to . . . (*name and/or call sign(s)*) on . . . kHz (*or* MHz), or in the bands . . ./channels . . .
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency (*or* on . . . kHz (*or* MHz)).
QSZ	Shall I send each word or group more than once?	Send each word or group twice (*or* . . . times).

Abbreviation	Question	Answer or Advice
QTA	Shall I cancel telegram (*or* message) *number* . . . ?	Cancel telegram (*or* message) *number* . . .
QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QTC	How many telegrams have you to send?	I have . . . telegrams for you (*or* for . . . (*name and/or call sign*)).
QTD*	What has the rescue vessel or *rescue aircraft* recovered?	. . . (*identification*) has recovered . . . 1. . . . (*number*) survivors 2. wreckage 3. . . . (*number*) bodies.
QTE	What is my TRUE bearing from you? *or* What is my TRUE bearing from . . . (*name and/or call sign*)? *or* What is the TRUE bearing of . . . (*name and/or call sign*) from . . . (*name and/or call sign*)?	Your TRUE bearing from me is . . . degrees at . . . hours. *or* Your TRUE bearing from . . . (*name and/or call sign*) was . . . degrees at . . . hours. *or* The TRUE bearing of . . . (*name and/or call sign*) from . . . (*name and/or call sign*) was . . . degrees at . . . hours.
QTF	Will you give me my position according to the bearings taken by the direction-finding stations which you control?	Your position according to the bearings taken by the direction-finding stations which I control was . . . latitude . . . longitude (*or other indication of position*), class . . . at . . . hours.
QTG	Will you send two dashes of ten seconds each (*or* carrier) followed by your call sign (*or* name) (repeated . . . times) on . . . kHz (*or* MHz)? *or* Will you request . . . (*name and/or call sign*) to send two dashes of ten seconds each (*or* carrier) followed by his call sign (*and/or name*) (repeated . . . times) on . . . kHz (*or* MHz)?	I am going to send two dashes of ten seconds each (*or* carrier) followed by my call sign (*or* name) (repeated . . . times) on . . . kHz (*or* MHz). *or* I have requested . . . (*name and/or call sign*) to send two dashes of ten seconds each (*or* carrier) followed by his call sign (*and/or name*) (repeated . . . times) on . . . kHz (*or* MHz).
QTH	What is your position in latitude and longitude (*or according to any other indication*)?	My position is . . . latitude . . . longitude (*or according to any other indication*).
QTI*	What is your TRUE course?	My TRUE course is . . . degrees.
QTJ*	What is your speed?	My speed is . . . knots (*or* kilometres per hour *or* statute miles per hour).
	(*Requests the speed of a ship or*	(*Indicates the speed of a ship or*

Abbreviation	Question	Answer or Advice
	aircraft through the water or air respectively.)	*aircraft through the water or air respectively.*)
QTK*	What is the speed of your aircraft in relation to the surface of the earth?	The speed of my aircraft in relation to the surface of the earth is . . . knots (*or* . . . kilometres per hour *or* . . . statute miles per hour).
QTL*	What is your TRUE heading?	My TRUE heading is . . . degrees.
QTM*	What is your MAGNETIC heading?	My MAGNETIC heading is . . . degrees.
QTN	At what time did you depart from . . . (*place*)?	I departed from . . . (*place*) at . . . hours.
QTO	Have you left dock (*or* port)?	I have left dock (*or* port)
	or	*or*
	Are you airborne?	I am airborne.
QTP	Are you going to enter dock (*or* port)?	I am going to enter dock (*or* port).
	or	*or*
	Are you going to alight (*or* land)?	I am going to alight (*or* land).
QTQ	Can you communicate with my station by means of the International Code of Signals (INTERCO)?	I am going to communicate with your station by means of the International Code of Signals (INTERCO).
QTR	What is the correct time?	The correct time is . . . hours.
QTS	Will you send your call sign (*and/or name*) for . . . seconds?	I will send my call sign (*and/or name*) for . . . seconds.
QTT		The identification signal which follows is superimposed on another transmission.
QTU	What are the hours during which your station is open?	My station is open from . . . to . . . hours.
QTV	Shall I stand guard for you on the frequency of . . . kHz (*or* MHz) (from . . . to . . . hours)?	Stand guard for me on the frequency of . . . kHz (*or* MHz) (from . . . to . . . hours).
QTW*	What is the condition of survivors?	Survivors are in . . . condition and urgently need . . .
QTX	Will you keep your station open for further communication with me until further notice (*or* until . . . hours)?	I will keep my station open for further communication with you until further notice (*or* until . . . hours).
QTY*	Are you proceeding to the position of incident and if so when do you expect to arrive?	I am proceeding to the position of incident and expect to arrive at . . . hours (on . . . (*date*)).
QTZ*	Are you continuing the search?	I am continuing the search for . . . (aircraft, ship, survival craft, survivors or wreckage).
QUA	Have you news of . . . (*name and/or call sign*)?	Here is news of . . . (*name and/or call sign*).
QUB*	Can you give me in the following order information concerning: the direction in degrees TRUE	Here is the information requested . . . (*The units used for speed and*

Abbreviation	Question	Answer or Advice
	and speed of the surface wind; visibility; present weather; and amount, type and height of base of cloud above surface elevation at . . . (*place of observation*)?	*distances should be indicated.*)
QUC	What is the number (*or other indication*) of the last message you received from me (*or* from . . . (*name and/or call sign*))?	The number (*or other indication*) of the last message I received from you (*or* from . . . (*name and/or call sign*)) is . . .
QUD	Have you received the urgency signal sent by . . . (*name and/or call sign*)?	I have received the urgency signal sent by . . . (*name and/or call sign*) at . . . hours.
QUE	Can you speak in . . . (*language*), with interpreter if necessary; if so, on what frequencies?	I can speak in . . . (*language*) on . . . kHz (*or* MHz).
QUF	Have you received the distress signal sent by . . . (*name and/or call sign*)?	I have received the distress signal sent by . . . (*name and/or call sign*) at . . . hours.
QUH*	Will you give me the present barometric pressure at sea level?	The present barometric pressure at sea level is . . . (*units*).
QUM	May I resume normal working?	Normal working may be resumed.
QUN	1. *When directed to all stations:* Will vessels in my immediate vicinity . . . *or* (in the vicinity of . . . latitude . . . longitude) *or* (in the vicinity of . . .) please indicate their position, TRUE course and speed? 2. *When directed to a single station* Please indicate your position, TRUE course and speed?	My position, TRUE course and speed are . . .
QUO*	Shall I search for . . . 1. aircraft 2. ship 3. survival craft in the vicinity of . . . latitude . . . longitude (*or according to any other indication*)?	Please search for . . . 1. aircraft 2. ship 3. survival craft in the vicinity of . . . latitude . . . longitude (*or according to any other indication*).
QUP*	Will you indicate your position by . . . 1. searchlight 2. black smoke trail 3. pyrotechnic lights	My position is indicated by . . . 1. searchlight 2. black smoke trail 3. pyrotechnic lights.
QUR*	Have survivors . . . 1. received survival equipment 2. been picked up by rescue vessel 3. been reached by ground	Survivors . . . 1. are in possession of survival equipment dropped by . . . 2. have been picked up by rescue vessel

Abbreviation	Question	Answer or Advice
	rescue party?	3. have been reached by ground rescue party.
QUS*	Have you sighted survivors or wreckage? If so, in what position?	Have sighted 1. survivors in water 2. survivors on rafts 3. wreckage in position . . . latitude . . . longitude (*or according to any other indication*).
QUT*	Is position of incident marked?	Positon of incident is marked by . . . 1. flame or smoke float 2. sea marker 3. sea marker dye 4. . . .(*specify other marking*)
QUU*	Shall I home ship or aircraft to my position?	Home ship or aircraft . . . (*name and/or call sign*) . . . 1. to your position by sending your call sign and long dashes on . . . kHz (*or* MHz). 2. by sending on . . . kHz (*or* MHz) TRUE track to reach you.
QUW*	Are you in the search area designated as . . . (*designator or latitude and longitude*)?	I am in the . . . (*designation*) search area.
QUX	Do you have any navigational warnings or gale warnings in force?	I have the following navigational warning(s) or gale warning(s) in force . . .
QUY*	Is position of survival craft marked?	Position of survival craft was marked at . . . hours by . . . 1. flame of smoke float 2. sea marker 3. sea marker dye 4. . . . (*specify other marking*).
QUZ	May I resume restricted working?	Distress phase still in force, restricted working may be resumed.

B. List of Signals according to the Nature of Questions, Answer or Advice

Abbreviation	Question	Answer or Advice
	Name	
QRA	What is the name of your vessel (*or* station)?	The name of my vessel (*or* station) is . . .
	Route	
QRD	Where are you bound for and where are you from?	I am bound for . . . from . . .
	Position	
QRB	How far approximately are you from my station?	The approximate distance between our stations is . . . nautical miles (or kilometres).
QTH	What is your position in latitude and longitude (*or according to any other indication*)?	My position is . . . latitude . . . longitude (*or according to any other indication*).
QTN	At what time did you depart from . . . (*place*)?	I departed from . . . (*place*) at . . . hours.
	Quality of Signals	
QOF	What is the commercial quality of my signals?	The quality of your signals is . . . 1. not commercial 2. marginally commercial 3. commercial.
QRI	How is the tone of my transmission?	The tone of your transmission is . . . 1. good 2. variable 3. bad.
QRK	What is the intelligibility of my signals (*or* those of. . . (*name and/or call sign*))?	The intelligibility of your signals (*or* those of . . . (*name and/or call sign*)) is . . . 1. bad 2. poor 3. fair 4. good 5. excellent.
	Strength of Signals	
QRO	Shall I increase transmitter power?	Increase transmitter power.
QRP	Shall I decrease transmitter power?	Decrease transmitter power.
QSA	What is the strength of my signals (*or* those of . . . (*name and/or call sign*))?	The strength of your signals (*or* those of . . . (*name and/or call sign*)) is . . . 1. scarcely perceptible 2. weak 3. fairly good 4. good 5. very good.
QSB	Are my signals fading?	Your signals are fading.

Abbreviation	Question	Answer or Advice
	Keying	
QRQ	Shall I send faster?	Send faster (. . . words per minute).
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at . . . words per minute.
QRS	Shall I send more slowly?	Send more slowly (. . . words per minute).
QSD	Are my signals mutilated?	Your signals are mutilated.
	Interference	
QRM	Is my transmission being interfered with?	Your transmission is being interfered with . . . (1. nil 2. slightly 3. moderately 4. severely 5. extremely).
QRN	Are you troubled by static?	I am troubled by static . . . (1. nil 2. slightly 3. moderately 4. severely 5. extremely).
	Adjustment of Frequency	
QRG	Will you tell me my exact frequency (*or* that of . . .)?	Your exact frequency (or that of . . .) is . . . kHz (*or* MHz).
QRH	Does my frequency vary?	Your frequency varies.
QTS	Will you send your call sign (*and/or name*) for . . . seconds?	I will send my call sign (*and/or name*) for . . . seconds.
	Choice of Frequency and/or Class of Emission	
QOO	Can you send on any working frequency?	I can send on any working frequency.
QSN	Did you hear me (*or* . . . (*name and/or call sign*)) on . . . kHz (*or* MHz)?	I did hear you (*or* . . . (*name and/or call sign*)) on . . . kHz (*or* MHz).
QSS	What working frequency will you use?	I will use the working frequency . . . kHz (*or* MHz) (in the high frequency bands normally only the last three figures of the frequency need be given).
QSU	Shall I send *or* reply on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .)?	Send or reply on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .).
QSV	Shall I send a series of V's (*or* signs) *for* adjustment on this frequency (*or* . . . kHz (*or* MHz))?	Send a series of V's (*or* signs) for adjustment on this frequency (*or* . . . kHz (*or* MHz)).

Abbreviation	Question	Answer or Advice
QSW	Will you send on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .)?	I am going to send on this frequency (*or* on . . . kHz (*or* MHz)) (with emissions of class . . .).
QSX	Will you listen to . . . (*name* and/or *call sign(s)*) on . . . kHz (*or* MHz), *or* in the bands . . ./channels . . .?	I am listening to . . . (*name and/or call sign(s)* on . . . kHz (*or* MHz), *or* in the bands . . ./channels . . .
	Change of Frequency	
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency (*or* on . . . kHz (*or* MHz)).
	Establishing Communication	
QOA	Can you communicate by radiotelgraphy (500 kHz)?	I can communicate by radiotelegraphy (500 kHz).
QOB	Can you communicate by radiotelephony (2182 kHz)?	I can communicate by radiotelephony (2182 kHz).
QOC	Can you communicate by radiotelephony (Channel 16—frequency 156.80 MHz)?	I can communicate by radiotelephony (Channel 16—frequency 156.80 MHz).
QOD	Can you communicate with me in . . . 0. Dutch 5. Italian 1. English 6. Japanese 2. French 7. Norwegian 3. German 8. Russian 4. Greek 9. Spanish?	I can communicate with you in . . . 0. Dutch 5. Italian 1. English 6. Japanese 2. French 7. Norwegian 3. German 8. Russian 4. Greek 9. Spanish.
QOT	Do you hear my call; what is the approximate delay in minutes before we may exchange traffic?	I hear your call; the approximate delay is . . . minutes.
QRL	Are you busy?	I am busy (*or* I am busy with . . . (*name and/or call sign*)). Please do not interfere.
QRV	Are you ready?	I am ready.
QRX	When will you call me again?	I will call you again at . . . hours (on . . . kHz (*or* MHz))
.QRY	What is my turn? (*Relates to communication*)	Your turn is Number . . . (*or according to any other indication*). (*Relates to communication*).
QRZ	Who is calling me?	You are being called by . . . (on . . . kHz (*or* MHz)).
QSC	Are you a low traffic ship station?	I am a low traffic ship station.
QSR	Shall I repeat the call on the calling frequency?	Repeat your call on the calling frequency; did not hear you (*or* have interference).
QTQ	Can you communicate with my station by means of International Code of Signals (INTERCO)?	I am going to communicate with your station by means of the International Code of Signals (INTERCO).

Abbreviation	Question	Answer or Advice
QUE	Can you speak in . . . (*language*), with interpreter if necessary: if so, on what frequencies?	I can speak in . . . (*language*) on . . . kHz (*or* MHz).
	Selective Calls	
QOL	Is your vessel fitted for reception of selective calls? If so, what is your selective call number or signal?	My vessel is fitted for the receptio of selective calls. My selective call number is . . .
QOM	On what frequencies can your vessel be reached by a selective call?	My vessel can be reched by a selective call on the following frequency/ies . . . (*periods of time to be added if necessary*).
	Time	
QTR	What is the correct time?	The correct time is . . . hours.
QTU	What are the hours during which your station is open?	My station is open from . . . to . . . hours.
	Charges	
QRC	By what private enterprise (*or* State Administration) are the accounts for charges for your station settled?	The accounts for charges of my station are settled by the privat enterprise . . . (*or* State Administration).
QSJ	What is the charge to be collected to . . . including your internal charge?	The charge to be collected to . . . including my internal charge is . . . francs.
	Transit	
QRW	Shall I inform . . . that you are calling him on . . . kHz (*or* MHz)?	Please inform . . . that I am calling him on . . . kHz (*or* MHz).
QSO	Can you communicate with . . . (*name and/or call sign*) direct (*or* by relay)?	I can communicate with . . . (*name and/or call sign*) direct (*or* by relay through . . .).
QSP	Will you relay to . . . (*name and/or call sign*) free of charge?	I will relay to . . . (*name and/or cal sign*) free of charge.
QSQ	Have you a doctor on board (*or* is . . . (*name of person*) on board)?	I have a doctor on board (*or* . . . (*name of person*) is on board).
QUA	Have you news of . . . (*name and/or call sign*)?	Here is news of . . . (*name and/or call sign*).
QUC	What is the number (*or other indication*) of the last message you received from me (*or* from . . .(*name and/or call sign*))?	The number (*or other indication*) o the last message I received from you (*or* from . . . (*name and/or call sign*)) is . . .
	Exchange of Correspondence	
QOG	How many tapes have you to send?	I have . . . tapes to send.
QOH	Shall I send a phasing signal for . . . seconds?	Send a phasing signal for . . . seconds.
QOI	Shall I send my tape?	Send your tape.
QRJ	How many radiotelephone calls have you to book?	I have . . . radiotelephone calls to book.

Abbreviation	Question	Answer or Advice
QRU	Have you anything for me?	I have nothing for you.
QSG	Shall I send . . . telegrams at a time?	Send . . . telegrams at a time.
QSI		I have been unable to break in on your transmission. *or* Will you inform . . . (*name and/or call sign*) that I have been unable to break in on his transmission (on . . . kHz (*or* MHz)).
QSK	Can you hear me between your signals and if so may I break in on your transmission?	I can hear you between my signals, break in on my transmission.
QSL	Can you acknowledge receipt?	I am acknowledging receipt.
QSM	Shall I repeat the last telegram which I sent you (*or* some previous telegram)?	Repeat the last telegram which you sent me (*or* telegram(s) number(s) . . .).
QSZ	Shall I send each word or group more than once?	Send each word or group twice (*or* . . . times).
QTA	Shall I cancel telegram (*or message*) number . . . ?	Cancel telegram (*or* message) number . . .
QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QTC	How many telegrams have you to send?	I have . . . telegrams for you (*or* for . . . (*name and/or call sign*)).
QTV	Shall I stand guard for you on the frequency of . . . kHz (*or* MHz) (from . . . to . . . hours)?	Stand guard for me on the frequency of . . . kHz (*or* MHz) (from . . . to . . . hours).
QTX	Will you keep your station open for further communication with me until further notice (*or* until . . . hours)?	I will keep my station open for further communication with you until further notice (*or* until . . . hours).
	Movement	
QRE	What is your estimated time of arrival at . . . (*or* over . . .) (*place*)?	My estimated time of arrival at . . . (*or* over . . .) (*place*) is . . . hours.
QRF	Are you returning to . . . (*place*)?	I am returning to . . . (*place*) *or* Return to . . . (*place*).
QSH	Are you able to home with your direction-finding equipment?	I am able to home with my direction-finding equipment (on . . . (*name and/or call sign*)).
QTI*	What is your TRUE course?	My TRUE course is . . . degrees.
QTJ*	What is your speed?	My speed is . . . knots (*or* . . . kilometres per hour *or* . . . statute miles per hour).
	(*Requests the speed of a ship or aircraft through the water or air respectively.*)	(*Indicates the speed of a ship or aircraft through the water or air respectively.*)

Abbreviation	Question	Answer or Advice
QTK*	What is the speed of your aircraft in relation to the surface of the earth?	The speed of my aircraft in relation to the surface of the earth is . . . knots (*or* . . . kilometres per hour *or* . . . statute miles per hour).
QTE*	What is your TRUE heading?	My TRUE heading is . . . degrees.
QTM*	What is your MAGNETIC heading?	My MAGNETIC heading is . . . degrees.
QTN	At what time did you depart from . . . (*place*)?	I departed from . . . (*place*) at . . . hours.
QTO	Have you left dock (*or* port)?	I have left dock (*or* port)
	or	
	Are you airborne?	I am airborne
QTP	Are you going to enter dock (*or* port)?	I am going to enter dock (*or* port)
	or	
	Are you going to alight (*or* land)?	I am going to alight (*or* land)
QUN	1. *When directed to all stations.* Will vessels in my immediate vicinity *or* (in the vicinity of . . . latitude . . . longitude) *or* (in the vicinity of . . .) please indicate their position, TRUE course and speed?	My position, TRUE course and speed are . . .
	2. *When directed to a single station* Please indicate your position, TRUE course and speed?	My position, TRUE course and speed are . . .
	Meteorology	
QUB*	Can you give me in the following order information concerning: the direction in degrees TRUE and speed of the surface wind; visibility; present weather; and amount, type and height of base of cloud above surface elevation at . . . (*place of observation*)?	Here is the information requested . . . (*The units used for speed and distances should be indicated.*)
QUH*	Will you give me the present barometric pressure at sea level?	The present barometric pressure at sea level is . . . (*units*).
QUX	Do you have any navigational warnings or gale warnings in force?	I have the following navigational warning(s) or gale warning(s) in force . . .
	Radio Direction-Finding	
QTE	What is my TRUE bearing from you?	Your TRUE bearing from me is . . . degrees at . . . hours.
	or	
	What is my TRUE bearing from . . . (*name and/or call sign*)?	Your TRUE bearing from . . . (*name and/or call sign*) was . . . degrees at . . . hours

Abbreviation	Question	Answer or Advice
	or	*or*
	What is the TRUE bearing of . . . (*name and/or call sign*) from . . . (*name and/or call sign*)?	The TRUE bearing of . . . (*name and/or call sign*) from . . . (*name and/or call sign*) was . . . degrees at . . . hours.
QTF	Will you give me my position according to the bearings taken by the direction-finding stations which you control?	Your position according to the bearings taken by the direction-finding stations which I control was . . . latitude . . . longitude (*or other indication of position*), class . . . at . . . hours.
QTG	Will you send two dashes of ten seconds each (*or* carrier) followed by your call sign (*or* name) (repeated . . . times) (on . . . kHz (*or* MHz))?	I am going to send two dashes of ten seconds each (*or* carrier) followed by my call sign (*or* name) (repeated . . . times) (on . . . kHz (*or* MHz))
	or	*or*
	Will you request . . . (*name and/or call sign*) to send two dashes of ten seconds each (*or* carrier) followed by his call sign (*and/or* name) (repeated . . . times) on . . . kHz (*or* MHz)	I have requested . . . (*name and/or call sign*) to send two dashes of ten seconds each (*or* carrier) followed by his call sign (*and/or* name) (repeated . . . times) on . . . kHz (*or* MHz).
	Suspension of Work	
QRT	Shall I stop sending?	Stop sending.
QUM	May I resume normal working?	Normal working may be resumed.
QUZ	May I resume restricted working?	Distress phase still in force, restricted working may be resumed.
	Safety	
QOE	Have you recieved the safety signal sent by . . . (*name and/or call sign*)?	I have received the safety signal sent by . . . (*name and/or call sign*).
QUX	Do you have any navigational warnings or gale warnings in force?	I have the following navigational warning(s) or gale warning(s) in force . . .
	Urgency	
QUD	Have you received the urgency signal sent by . . . (*name and/or call sign*)?	I have received the urgency signal sent by . . . (*name and/or call sign*) at . . . hours.
	Distress	
QOJ	Will you listen on . . . kHz (*or* MHz) for signals of emergency position-indicating radio-beacons?	I am listening on . . . kHz (*or* MHz) for signals of emergency position-indicating radio-beacons.
QOK	Have you received the signals of an emergency position-indicating radiobeacon on . . . kHz (*or* MHz)?	I have received the signals of an emergency position-indicating radiobeacon on . . . kHz (*or* MHz).

Abbreviation	Question	Answer or Advice
QUF	Have you received the distress signal sent by . . . (*name and/or call sign*)?	I have received the distress signal sent by . . . (*name and/or call sign*) at . . . hours.
QUM	May I resume normal working?	Normal working may be resumed.
QUZ	May I resume restricted working?	Distress phase still in force, restricted working may be resumed.
	Search and Rescue	
QSE*	What is the estimated drift of the survival craft?	The estimated drift of the survival craft is . . . (*figures and units*).
QSF*	Have you effected rescue?	I have effected rescue and am proceeding to . . . base (with . . . persons injured requiring ambulance).
QTD*	What has the rescue vessel or rescue aircraft recovered?	. . . (*identification*) has recovered . . . 1. . . . (*number*) survivors 2. wreckage 3. . . . (*number*) bodies.
QTW*	What is the condition of survivors?	Survivors are in . . . condition and urgently need . . .
QTY*	Are you proceeding to the position of incident and if so when do you expect to arrive?	I am proceeding to the position of incident and expect to arrive at . . . hours (on . . . *date*).
QTZ*	Are you continuing the search?	I am continuing the search for . . . (aircraft, ship, survival craft, survivors or wreckage).
QUN	1. *When directed to all stations:* Will vessels in my immediate vicinity . . . *or* (in the vicinity of . . . latitude . . . *longitude*) *or* (in the vicinity of . . .) please indicate their position, TRUE course and speed? 2. *When directed to a single station:* Please indicate your position, TRUE course and speed?	My position, TRUE course and speed are . . .
QUO*	Shall I search for . . . 1. aircraft 2. ship 3. survival craft in the vicnity of . . . latitude . . . longitude (*or according to any other indication*)?	Please search for . . . 1. aircraft 2. ship 3. survival craft in the vicinity of . . . latitude . . . longitude (*or according to any other indication*).

Abbreviation	Question	Answer or Advice
QUP*	Will you indicate your position by . . . 1. searchlight 2. black smoke trail 3. pyrotechnic lights?	My position is indicated by . . . 1. searchlight 2. black smoke trail 3. pyrotechnic lights.
QUR*	Have survivors . . . 1. received survival equipment 2. been picked up by rescue vessel 3. been reached by ground rescue party?	Survivors . . . 1. are in possession of survival equipment dropped by . . . 2. have been picked up by rescue vessel 3. have been reached by ground rescue party.
QUS*	Have you sighted survivors or wreckage? If so, in what position?	Have sighted . . . 1. survivors in water 2. survivors on rafts 3. wreckage in position . . . latitude . . . longitude (*or according to any other indication*).
QUT*	Is position of incident marked?	Position of incident is marked by . . . 1. flame or smoke float 2. sea marker 3. sea marker dye 4. . . . (*specify other marking*)
QUU*	Shall I home ship or aircraft to my position?	Home ship or aircraft . . . (*name and/or call sign*) . . . 1. to your position by sending your call sign and long dashes on . . . kHz (*or* MHz) 2. by sending on . . . kHz (*or* MHz) TRUE track to reach you.
QUW*	Are you in the search area designated as . . . (*designator or latitude and longitude*)?	I am in the . . . (*designation*) search area.
QUY*	Is position of survival craft marked?	Position of survival craft was marked at . . . hours by . . . 1. flame or smoke float 2. sea marker 3. sea marker dye 4. . . . (*specify other marking*).
QUZ	May I resume restricted working?	Distress phase still in force, restricted working may be resumed.
QTT	**Identification**	The identification signal which follows is superimposed on another transmission.

PART II—MISCELLANEOUS ABBREVIATIONS AND SIGNALS

Abbreviation or Signal	Definition
AA	All after . . . (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) o* *after RPT, to request a repetition*).
AB	All before . . . (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) o* *after RPT to request a repetition*).
ADS	Address (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) or after RPT, to request a repetition*).
$\overline{AR}$	End of transmission.
$\overline{AS}$	Waiting period.
BK	Signal used to interrupt a transmission in progress.
BN	All between . . . and . . . (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) or after RPT, to request a repetition*).
BQ	A reply to an RQ.
$\overline{BT}$	Signal to mark the separation between different parts of the same transmission.
C	Yes *or* "The significance of the previous group should be read i the affirmative".
CFM	Confirm (*or* I confirm).
CL	I am closing my station.
COL	Collate (*or* I collate).
CORRECTION	Cancel my last word *or* group. The correct word *or* group follows (*used in radiotelephony, spoken as KOR-REK-SHUN*).
CP	General call to two or more specified stations (*see Section* **96**).
CQ	General call to all stations.
CS	Call sign (*used to request a call sign*).
DE	"from . . ." (*used to precede the name or other identification of the calling station*).
DF	Your bearing at . . . hours was . . . degrees, in the doubtful sector of this station, with a possible error of . . . degrees.
DO	Bearing doubtful. Ask for another bearing later (*or* at . . . hours)
E	East (Cardinal point).
ETA	Estimated time of arrival.
INTERCO	International Code of Signals groups follow (*used in radiotelephony, spoken as IN-TER-CO*).
K	Invitation to transmit.
$\overline{KA}$	Starting signal.
KTS	Nautical miles per hour (*Knots*).
MIN	Minute (*or* Minutes).
MSG	Prefix indicating a message to or from the master of a ship concerning its operation or navigation.
N	North (Cardinal point).
NIL	I have nothing to send to you.

Note: When used in radiotelegraphy a line over the letters composing a signal denotes that th letters are to be sent as one signal.

Abbreviation or Signal	Definition
NO	No (*negative*).
NW	Now.
NX	Notice to Mariners (*or* Notice to Mariners follows).
OK	We agree (*or* It is correct).
OL	Ocean Letter.
P	Prefix indicating a private radiotelegram.
PBL	Preamble (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) or after RPT, to request a repetition*).
PSE	Please.
R	Received.
REF	Reference to . . . (*or* Refer to . . .).
RPT	Repeat (*or* I repeat) (*or* Repeat . . .).
RQ	Indication of a request.
S	South (Cardinal point).
SIG	Signature (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) or after RPT, to request a repetition*).
SLT	Radiomaritime Letter.
SVC	Prefix indicating a service telegram.
SYS	Refer to your service telegram.
TFC	Traffic.
TR	Used by a land station to request the position and next port of call of a mobile station (see Sections **102** and **156**); used also as a prefix to the reply.
TU	Thank you.
TXT	Text (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) or after RPT, to request a repetition*).
$\overline{VA}$	End of work.
W	West (Cardinal point).
WA	Word after . . . (*used after a question mark in radiotelegraphy or after RQ in radiotelephony (in case of language difficulties) or after RPT, to request a repetition*).
WB	Word before.
WD	Word(s) *or* Group(s).
WX	Weather report (*or* Weather report follows).
XQ	Prefix used to indicate the transmission of a service note.
YZ	The words which follow are in plain language.

PART III—PHONETIC ALPHABET AND FIGURE CODE

1 When it is necessary to spell out call signs, service abbreviations and words, the following letter spelling table shall be used:

Letter to be transmitted	Word to be used	Spoken as*
A	Alfa	AL FAH
B	Bravo	BRAH VOH
C	Charlie	CHAR LEE or SHAR LEE
D	Delta	DELL TAH
E	Echo	ECK OH
F	Foxtrot	FOKS TROT
G	Golf	GOLF
H	Hotel	HOH TELL
I	India	IN DEE AH
J	Juliett	JEW LEE ETT
K	Kilo	KEY LOH
L	Lima	LEE MAH
M	Mike	MIKE
N	November	NO VEM BER
O	Oscar	OSS CAH
P	Papa	PAH PAH
Q	Quebec	KEH BECK
R	Romeo	ROW ME OH
S	Sierra	SEE AIR RAH
T	Tango	TANG GO
U	Uniform	YOU NEE FORM or OO NEE FORM
V	Victor	VIK TAH
W	Whiskey	WISS KEY
X	X-ray	ECKS RAY
Y	Yankee	YANG KEY
Z	Zulu	ZOO LOO

* The syllables to be emphasised are underlined.

2 When it is necessary to spell out figures or marks, the following table shall be used:

Figure or mark to be transmitted	Code word to be used	Spoken as*
0	NADAZERO	NAH-DAH-ZAY-ROH
1	UNAONE	OO-NAH-WUN
2	BISSOTWO	BEES-SOH-TOO
3	TERRATHREE	TAY-RAH-TREE
4	KARTEFOUR	KAR-TAY-FOWER
5	PANTAFIVE	PAN-TAH-FIVE
6	SOXISIX	SOK-SEE-SIX
7	SETTESEVEN	SAY-TAY-SEVEN
8	OKTOEIGHT	OK-TOH-AIT
9	NOVENINE	NO-VAY-NINER
Decimal point	DECIMAL	DAY-SEE-MAL
Full stop	STOP	STOP

3 However, stations of the same country, when communicating between themselves, may use any other table recognised by their Administration.

* Each syllable should be equally emphasised.

APPENDIX 3

Hours of Service for Ships in the Second, Third and Fourth Categories

PART 1—HOURS OF SERVICE (SHIP'S TIME)

Ship stations of the second category (H16) shall maintain the following hours of service:

0000–0400
0800–1200
1600–1800
2000–2200
} ship's time or zone time

and, additionally, four hours of service at times to be decided by the Administration, master or responsible person, to meet the essential communication needs of the ship having regard to propagation conditions and traffic requirements.

Ship stations of the third category (H8) shall maintain the following hours of service:

0800–1200, ship's time or zone time,

two continuous hours of service between 1800–2200 hours at times decided by the administration, master or responsible person and, additionally, two hours of service at times decided by the Administration, master or responsible person, to meet the essential communication needs of the ship having regard to propagation conditions and traffic requirements.

Ship stations of the fourth category (Hx) are encouraged to provide service from 0830 to 0930 hours, ship's time or zone time. Each Administration will determine whether ship's time observed by its ships is to be zone time.

PART 2—DIAGRAM

This diagram indicates the *fixed* and *elected* hours of service maintained by ships of the second and third categories in terms of zone time. (The

hours of service shown exclude those which are determined by the Administration, master, or responsible person.)

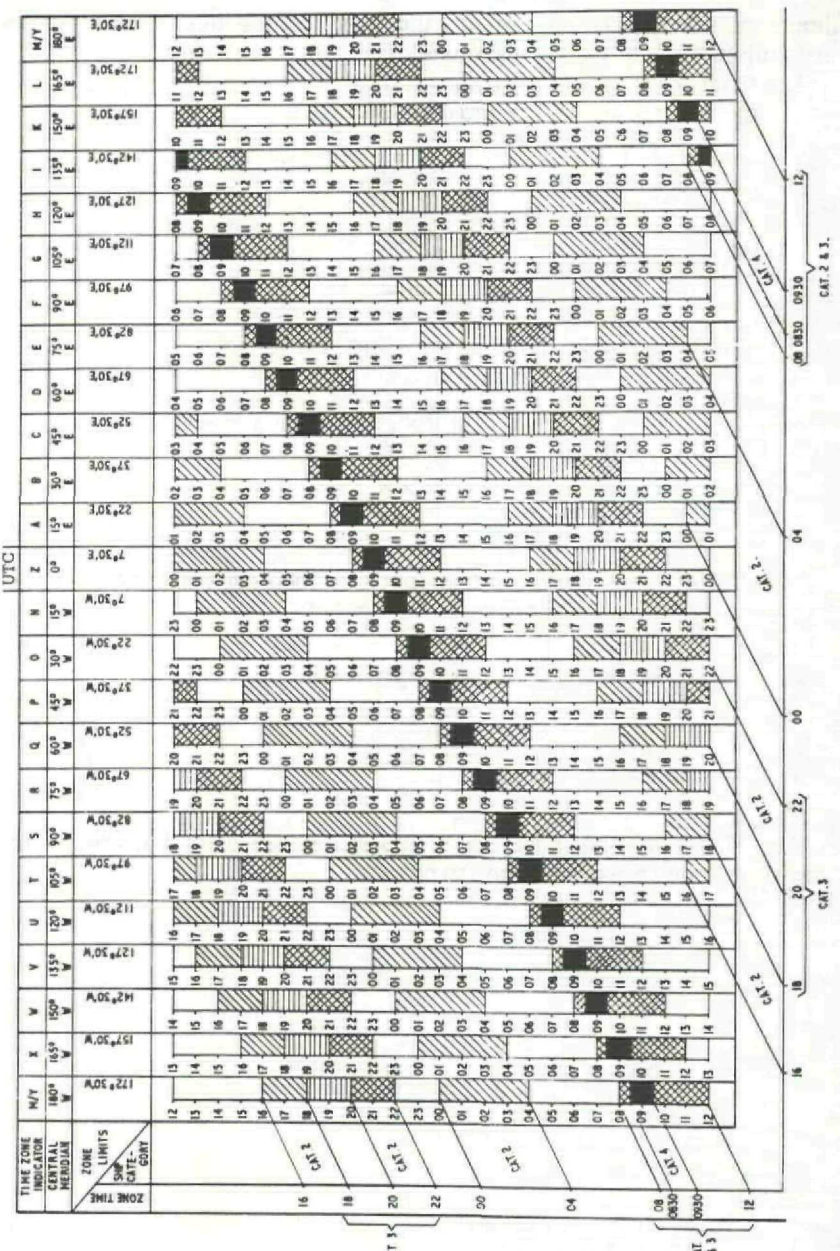
The *fixed* hours of watch are shown thus:

(I) for ships of the second category:

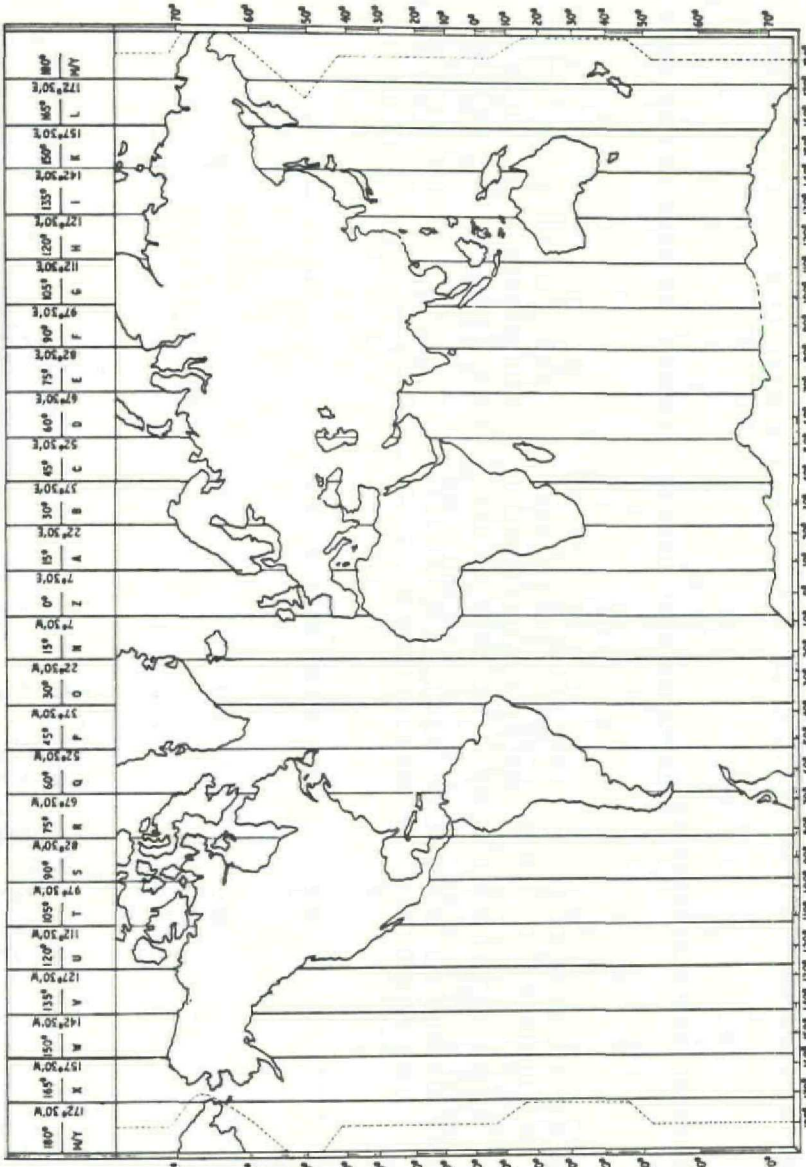
(II) for ships of the second and third categories:

(III) for ships of the third category, period over which two continuous hours of service may be elected:

Also shown are the specific service periods 0830–0930 that ships of the fourth category are encouraged to provide.



ZONES AND HOURS OF SERVICE OF SHIP STATIONS.



ZONES AND HOURS OF SERVICE OF SHIP STATIONS
OF THE SECOND AND THIRD CATEGORIES.

APPENDIX 4

Radio Direction-Finding Procedures

The following rules of procedure applicable to radiotelegraphy and radiotelephony, are based on the use of radiotelegraphy. When used for radiotelephony, appropriate phrases may replace the service abbreviations if desired.

1 TO OBTAIN A BEARING

(1) The ship station calls the radio direction-finding station or the radio direction-finding control station on the listening frequency indicated in the List of Radiodetermination and Special Service Stations. Depending on the type of information desired, the calling station transmits the appropriate service abbreviation followed, if the radio direction-finding station is a mobile station, by the service abbreviation QTH? It indicates, if necessary, the frequency on which it is going to transmit to enable its bearing to be taken, and then awaits instructions.

(2) The radio direction-finding station called requests the calling station, by means of the appropriate service abbreviation, to transmit for the bearing. If necessary, it indicates the frequency to be used for this purpose and the number of times the transmission is to be repeated.

(3) After having changed, if necessary, to its new transmitting frequency, the calling station transmits two dashes of approximately ten seconds each, followed by its call sign. It repeats this signal as often as the radio direction-finding station requires.

(4) The radio direction-finding station determines the direction and, if possible, the sense of the bearing, and its classification (see 2.).

(5) If the radio direction-finding station is not satisfied with the operation, it will request the calling station to repeat the transmission described in (3).

(6) The radio direction-finding station then transmits the information to the calling station in the following order:

(a) the appropriate service abbreviation;

(b) three digits indicating the true bearing in degrees from the radio direction-finding station;
(c) class of bearing;
(d) time of observation;
(e) if the radio direction-finding station is mobile, its own position in latitude and longitude, preceded by the service abbreviation QTH.

As soon as the calling station has received the result of the observation, it repeats the message, if this is considered necessary to obtain confirmation. The radio direction-finding station then confirms that the repetition is correct or, if necessary, corrects it by repeating the message. When the radio direction-finding station is sure that the calling station has received the message correctly, it transmits the signal "end of work". The calling station repeats this signal to indicate that the operation is finished.

In the absence of information to the contrary, the calling station may assume that the sense of the bearing was determined. If the radio direction-finding station has not determined the sense, it indicates this in the information transmitted, or reports the bearing and its reciprocal.

2 CLASSIFICATION OF BEARINGS ON FREQUENCIES BELOW 3000 kHz

To estimate the accuracy and determine the corresponding class of a bearing:

(a) an operator should generally, and particularly in the maritime mobile radio direction-finding service, use the observation characteristics of bearings shown in the following Table;
(b) the operators at a radio direction-finding station, when facilities and time permit, may take into account the probability of error in the bearing. A bearing is considered as belonging to a particular class if there is a probability of less than one in twenty that the bearing error would exceed the numerical values specified for that class in the Table. This probability should be determined from an analysis of the five components that make up the total variance of the bearing (instrumental, site, propagation, random-sampling and observation components).

TABLE

Class	Bearing Error (Degrees)	Observational Characteristics					
		Signal Strength	Bearing Indication	Fading	Interference	Bearing Swing (Degrees)	Duration of Observation
A	± 2	very good or good	definite (sharp null)	negligible	negligible	less than 3	adequate
B	± 5	fairly good	blurred	slight	slight	more than 3 less than 5	short
C	± 10	weak	severely blurred	severe	strong	more than 5 less than 10	very short
D	more than ± 10	scarcely perceptible	ill-defined	very severe	very strong	more than 10	inadequate

3 TO OBTAIN A POSITION DETERMINED BY TWO OR MORE RADIO DIRECTION-FINDING STATIONS ORGANISED AS A GROUP

(1) If the calling station wishes to be informed of its position by a group of radio direction-finding stations, it calls the control station as indicated in **1** (1) and requests its position by means of the appropriate service abbreviation.

(2) The control station replies to the call and, when the radio direction-finding stations are ready, requests, by means of the appropriate service abbreviation, the calling station to transmit. When the position has been determined, the control station transmits to the calling station:

(a) the appropriate service abbreviation;
(b) the position, in latitude and longitude or, if appropriate, in relation to a known geographical position;
(c) the class of position as defined in the following sub-paragraph;
(d) the time of observation.

(3) According to its estimate of the accuracy of the observation, the control station must classify the position in one of the four following classes:

Class A: positions which the operator may reasonably expect to be accurate to within 5 nautical miles;
Class B: positions which the operator may reasonably expect to be accurate to within 20 nautical miles;
Class C: positions which the operator may reasonably expect to be accurate to within 50 nautical miles;

Class D: positions which the operator may not expect to be accurate to within 50 nautical miles.

4 TO OBTAIN SIMULTANEOUS BEARINGS FROM TWO OR MORE RADIO DIRECTION-FINDING STATIONS ORGANISED AS A GROUP

On a request for bearings, the control station of a group of radio direction-finding stations proceeds as indicated in **3** above. It then transmits the bearing observed by each station of the group, each bearing being preceded by the call sign of the station which observed it.

5 VERIFICATION OF CALIBRATION BY MEANS OF CHECK BEARINGS

The Merchant Shipping (Navigational Equipment) Regulations 1980 Rules 16 and 17 refer to verification of calibration by check bearings and recording of same.

Not less than 4 check bearings, in each of the four quadrants, are required to fully verify the calibration, in any period of 12 months.

Attention is also drawn to the current Department of Trade Notice M402—Installation, Calibration and Maintenance of Direction Finders.

APPENDIX 5

The International Maritime Organisation's Guidance on the Use of VHF at Sea

as annexed to IMCO Resolution A.474 (XII)

IMCO RESOLUTION A.474(XII) adopted on 19 November 1981

PROPER USE OF VHF CHANNELS AT SEA

THE ASSEMBLY,

RECALLING Article 16(i) of the Convention on the Inter-Governmental *Maritime Consultative Organization*,

NOTING WITH CONCERN the widespread misuse of VHF channels at sea, especially the distress, safety and calling Channel 16 (156.8 MHz) and channels used for port operations, ship movement services and reporting systems,

RECOGNIZING that the misuse of VHF channels is causing serious interference to essential communications and is a potential danger to safety at sea,

RECOGNIZING ALSO that the proper use of VHF channels at sea would make an important contribution to navigational safety,

BEARING IN MIND that in accordance with the ITU Radio Regulations:

(a) Channel 16 may only be used for distress, urgency and very brief safety communications and for calling to establish other communications which should then be conducted on a suitable working channel,

(b) On VHF channels allocated to the port operations service the only messages permitted are restricted to those relating to the operational handling, the movement and the safety of ships and, in emergency, to the safety of persons; as the use of these channels for ship-to-ship communications may cause serious interference to communications related to the movement and safety of shipping in congested port areas,

TAKING INTO ACCOUNT that VHF equipment is frequently operated by persons not trained in its proper use,

RECALLING that the ITU Radio Regulations require that the service of every ship radiotelephone station shall be controlled by an operator holding a certificate issued or recognized by the Government concerned,

RECALLING ALSO that, for the certification of masters, chief mates and

officers in charge of a navigational watch, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, requires knowledge of procedures used in radiotelephone communications and ability to use radiotelephones in particular with respect to distress, urgency, safety and navigational messages,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its forty-fourth session,

1. INVITES Member Governments to ensure that all persons on board controlling the operation of VHF equipment shall have knowledge of procedures used in radiotelephone communications and ability to use radiotelephones in particular with respect to distress, urgency, safety and navigational messages;

2. REQUESTS Member Governments to take appropriate action to ensure that VHF channels are used correctly and that in particular the following transmissions are avoided:

(a) Ship-to-ship communications on Channel 16 except for distress communications and for calling to establish other communications which should then be conducted on a suitable working channel;

(b) Ship-to-ship communications on the channels allocated to port operations, ship movement services and reporting systems, other than those for the movement and safety of shipping;

(c) Superfluous signals and correspondence;

(d) Signals without station identification;

3. ADOPTS the Guidance on the Use of VHF at Sea set out in the Annex to the present resolution;

4. INVITES Member Governments to bring the Guidance on the Use of VHF at Sea to the attention of all concerned.

1 VHF COMMUNICATION TECHNIQUE

1.1 PREPARATION

Before transmitting, think about the subjects which have to be communicated and, if necessary, prepare written notes to avoid unnecessary interruptions and ensure that no valuable time is wasted on a busy channel.

1.2 LISTENING

Listen before commencing to transmit to make certain that the channel is not already in use. This will avoid unnecessary and irritating interference.

1.3 DISCIPLINE

VHF equipment should be used correctly and in accordance with the Radio Regulations. The following in particular should be avoided:

(1) calling on Channel 16 for purposes other than distress, urgency and very brief safety communications when another calling channel is available;
(2) communications not related to safety and navigation on port operation channels;
(3) non-essential transmissions, e.g. needless and superfluous signals and correspondence;
(4) transmitting without correct identification;
(5) occupation of one particular channel under poor conditions;
(6) use of offensive language.

1.4 REPETITION

Repetition of words and phrases should be avoided unless specifically requested by the receiving station.

1.5 POWER REDUCTION

When possible, the lowest transmitter power necessary for satisfactory communication should be used.

1.6 COMMUNICATIONS WITH SHORE STATIONS

1.6.1 Instructions given on communication matters by shore stations should be obeyed.

1.6.2 Communications should be carried out on the channel indicated by the shore station. When a change of channel is requested, this should be acknowledged by the ship.

1.6.3 On receiving instructions from a shore station to stop transmitting, no further communications should be made until otherwise notified (the shore station may be receiving distress or safety messages and any other transmissions could cause interference).

1.7 COMMUNICATIONS WITH OTHER SHIPS

1.7.1 During ship-to-ship communications the ship called should indicate the channel on which further transmissions should take place. The calling ship should acknowledge acceptance before changing channel.

1.7.2 The listening procedure outlined in paragraph 1.2 should be followed before communications are commenced on the chosen channel.

1.8 DISTRESS COMMUNICATIONS

1.8.1 Distress calls/messages have absolute priority over all other communications. When hearing them all other transmissions should cease and a listening watch should be kept.

1.8.2 Any distress call/message should be recorded in the ship's log and passed to the master.

1.8.3 On receipt of a distress message, if in the vicinity, immediately acknowledge receipt. If not in the vicinity, allow a short interval of time to elapse before acknowledging receipt of the message in order to permit ships nearer to the distress to do so.

1.9 CALLING

1.9.1 Whenever possible, a working frequency should be used. If a working frequency is not available, Channel 16 may be used, provided it is not occupied by a distress call/message.

1.9.2 In case of difficulty to establish contact with a ship or shore station, allow adequate time before repeating the call. Do not occupy the channel unnecessarily and try another channel.

1.10 CHANGING CHANNELS

If communications on a channel are unsatisfactory, indicate change of channel and await confirmation.

1.11 SPELLING

If spelling becomes necessary (e.g. descriptive names, call signs, words which could be misunderstood) use the spelling table contained in the International Code of Signals and the Radio Regulations.

1.12 ADDRESSING

The words "I" and "You" should be used prudently. Indicate to whom they refer.

Example

Seaship, this is Port Radar, Port Radar, do you have a pilot?
Port Radar, this is Seaship, I do have a pilot.

1.13 WATCHKEEPING

1.13.1 Ships fitted only with VHF equipment should maintain watch on Channel 16 when at sea.

1.13.2 Other ships should, where practicable, keep watch on Channel 16 when within the service area of a shore station capable of operating on that channel.

1.13.3 In certain cases Governments may require ships to keep a watch on other channels.

2 VHF COMMUNICATION PROCEDURE

2.1 CALLING

When calling a shore station or another ship, say the name of that shore station or ship once (twice if considered necessary in heavy radio traffic conditions) followed by the phrase THIS IS and the ship's name twice indicating the channel in use.

Example

Port City, this is Seastar, Seastar, on Channel 14.

2.2 EXCHANGE OF MESSAGES

2.2.1 When communicating with a ship whose name is unknown but whose position *is* known, that position may be used. In this case the call is addressed to all ships.

Example

Hello all ships, this is Pastoria, Pastoria. Ship approaching number four buoy, I am passing Belinda Bank Light.

2.2.2 Where a message is received and only acknowledgement or receipt is needed, say "received". Where a message is received and acknowledgement of the correct message is required, say "received, understood", and repeat message if considered necessary.

Example

Message: Your berth will be clear at 0830 hours.

Reply: Received, understood. Berth clear at 0830 hours.

2.2.3 During exchange of messages, a ship should invite a reply by saying "over".

2.2.4 Where appropriate, the following message should be sent:

"Please use/I will use, the Standard Marine Navigational Vocabulary". When language difficulties exist which cannot be resolved by use of the Vocabulary, the International Code of Signals should be used.

In this case the word "INTERCO" should precede the groups of the International Code of Signals.

Example

"Please use/I will use the International Code of Signals".

2.2.5 Where the message contains instructions or advice, the substance should be repeated.

Example

Message: Advise you pass astern of me.

Reply: I will pass astern of you.

2.2.6 If a message is not properly received, ask for it to be repeated by saying "Say again".

2.2.7 If a message is received but not understood, say "Message not understood".

2.2.8 If it is necessary to change to a different channel say "Change to channel ... " and wait for acknowledgement before carrying out the change.

2.2.9 The end of a communication is indicated by the word "out".

3 STANDARD MESSAGES

3.1 Since most ship-to-shore communications are exchanges of information, it is advisable to use standard messages which will reduce transmission time.

3.2 Commonly used standard messages are given in the following Table and examples. Further samples of standard messages are given in the Standard Marine Navigational Vocabulary, which should be used whenever possible.

TABLE OF STANDARD MESSAGES

Standard message / Items / Type	1 Addressee	2 Nationality	3 Name of ship	4 Callsign	5 Position	6 Course/speed	7 Last port	8 Destination	9 ETA (pilot or area)	10 Pilot details	11 Gross tonnage/length	12 Draught	13 Cargo (kind and quantity)	14 Stowage	15 Malfunctions	16 Intended route	17 ETA next way point	18 VHF channel	19 Agent	20 Vocabulary, Part III paragraph	Complement of message
Contacting message	X		X															X			
Arrival message (see note 1)	X	X	X	X			X	X	X	X	X	X	X	X	X				X	4	
ETA message/ETD message	X	X	X	X					X											4	
Pilot request message	X		X					X	X											9	requests pilot
Radar identification message	X		X		X	X														11	
Dangerous cargo message (see note 2)	X		X										X	X							
Way point message	X		X		X												X			7.18	
Anchoring message	X		X		X															3	is anchored
Clearance message	X		X		X			X								X					requests clearance
Change channel message	X		X					change to channel										X			
Incident message (see note 3)	X		X		X										X					2	I am: sinking / on fire / in collision / aground / leaking oil/chemicals / not under command

Note 1: Often sent by radiotelegraphy or radiotelephony.

Note 2: All ships carrying dangerous goods should give prior advice to the port authority at least 24 hours before entry into the port area or where this is not practicable (e.g. short sea passage) as early as possible prior to entry into the port area; see MSC/Circ. 299.

Note 3: In the case of a distress, urgency or safety message, the corresponding prefix Mayday, Pan or Securité, has to be used.

EXAMPLES OF STANDARD MESSAGES

Message	
First contact message (see note)	Port City (addressee), this is Seaship (sender), this is Seaship (sender), on channel 14 (VHF channel), over.
Arrival message	Port City (addressee), this is United Country (nationality) ship Seaship (sender), call sign Alpha Bravo Charlie Delta (call sign), from Lake Town (last port), to harbour No. 2 (destination), ETA 1400 (ETA), I require a river pilot (pilot details), my length is 150 metres (gross tonnage/length), my draught is 9 metres (draught), I am carrying dangerous cargo (cargo), 300 tons IMDG Class 4.1 (stowage), in No. 4 hold (stowage), my forecastle is damaged and my radar is not working (malfunctions), my Agent is Cargo Services Company (agent), over.
ETA message	Pilot station (addressee), this is Island Republic (nationality) ship Seaship (sender), call sign Mike Oscar Pappa Delta (call sign), my ETA pilot station 0600 (ETA), over.
Pilot request message	Port City (addressee), this is Seaship (sender), I am bound for North Harbour (destination), ETA 0600 (ETA), I require a pilot, over.

Note: Call on working channel. Only use Channel 16 when working channel is not known.

EXAMPLES OF STANDARD MESSAGES

Message	
Radar identification message	Radar Station (addressee), this is Seaship (sender), my position is 090 degrees two miles from lighthouse (position), course 300, speed 20 knots (course/speed), over
Dangerous cargo message	Port City (addressee), this is Seaship (sender), I am carrying 100 tons CHLOROBENZENE, IMDG Class 3.3, UN No. 1134 (dangerous cargo), in Centre tank No 7 (stowage), etc, etc, over.
Way point message	Port City (addressee), this is Seaship (sender), I am at way point No 1 (position), my ETA Way point No. 2 at 1600 (ETA next way point), over.
Anchoring message	Port City (addressee), this is Seaship (sender), I am anchored in position 200 degrees one mile from breakwater (position), over.
Clearance message	Port City (addressee), this is Seaship (sender), I am berthed at Harbour Quay (position), bound for the Roads (destination), via South Channel (intended route), I request clearance, over.
Change of channel message	Port City (addressee), this is Seaship (sender), change to channel 10 (VHF channel), over. *Note*: Await acknowledgement before changing.

Distress	
(1) Call	MAYDAY, MAYDAY, MAYDAY (prefix 3 ×), this is Seaship, Seaship, Seaship (sender 3 ×),
(2) Message	Mayday, Seaship, my position is 180 degrees one mile from buoy number 10 (position), I am sinking, I require immediate assistance, over.
Urgency	
(1) Call*	PAN PAN, PAN PAN, PAN PAN Hello all stations, Hello all stations, Hello all stations (prefix 3 ×) this is Seaship, Seaship, Seaship (3 ×),
(2) Message	my position is 180 degrees one mile from buoy number 10 (position), I have been in collision and need the assistance of a tug.
Safety	
(1) Call**	Sécurité, Sécurité, Sécurité Hello all stations, Hello all stations, Hello all stations (prefix 3 ×), this is Seaship, Seaship, Seaship (3 ×),
(2) Message	my position is 180 degrees one mile from buoy number 10 (position), my engines are broken down and I am anchoring in the northbound traffic lane. Request ships keep clear, over.
Minor incident	Other minor incidents may occur within harbour limits when it is desirable to notify the harbour office as follows: Port City (addressee), this is Seaship (sender), my position is 180 degrees one mile from buoy number 10 (position), I have lost my anchor and buoyed it in position two miles East of Head Point, over.

* Messages preceded by the urgency signal are normally addressed to "all stations" but may be addressed to a particular station. Whichever chosen would be included in the call after PAN PAN.

** Messages preceded by the safety signals are normally addressed to "all stations" but may be addressed to a particular station. Whichever chosen would be included in the call after Sécurité. The announcement should be made on Channel 16 but the message shall be transmitted, where practicable, on a working frequency.

APPENDIX 6

DoT Merchant Shipping Notice No. M.1018

STANDARD MARINE NAVIGATIONAL VOCABULARY

NOTICE TO OWNERS, MASTERS, OFFICERS AND SEAMEN OF MERCHANT SHIPS, YACHTS AND OTHER SEA-GOING VESSELS AND TO OWNERS AND CREWS OF FISHING VESSELS

This Notice supersedes Notice No. M.767

1 The Standard Marine Navigational Vocabulary has been developed by the International Maritime Organisation (IMO) and the present definitive version is annexed to this Notice.

2 Mariners' attention is drawn to the fact that a number of the meanings relating to Traffic Separation Schemes set out in the Glossary at Part II of the Annex to this Notice no longer agree with the definitions set out in the General Principles of Ships' Routeing issued by IMO. This is especially important in respect of the definition of Inshore Traffic Zones which is defined as follows in the General Principles of Ships' Routeing:

"2.1(f) Inshore traffic zone.

"A routeing measure comprising a designated area between the landward boundary of a traffic separation scheme and the adjacent coast not normally used by through traffic and where local special rules may apply."

Mariners, when considering usage of a designated Inshore Zone of a Traffic Separation Scheme should be guided by the above definition and not that contained in the Glossary. This matter has been brought to the attention of IMO in order that the meanings set out in the Glossary can be brought into line with those appearing in the General Principles of Ships' Routeing.

3 Future amendments to the text will be incorporated in a revised version of the illustrative tape recording mentioned in Notices M702 and

M732 which will still be available from the Seafarers' Education Service, 202 Lambeth Road, London SE1.

Department of Transport
Marine Division
London WC1V 6LP
March 1982

PART I—INTRODUCTION

Only the letter spelling table as contained in Chapter X of the International Code of Signals and in the Radio Regulations to be used on any occasion when spelling is necessary.

This vocabulary has been compiled:

to assist in the greater safety of navigation and of the conduct of ships;

to standardise the language used in communication for navigation at sea, in port-approaches, in waterways and harbours.

These phrases are not intended to supplant or contradict the International Regulations for Preventing Collisions at Sea or special local Rules or Recommendations made by IMO concerning ships' routeing schemes. Neither are they intended to supersede the International Code of Signals and the Radio Regulations nor to supplant normal Radiotelephone practice as set out in the ITU Regulations.

It is not intended that use of the vocabulary shall be mandatory, but rather through constant repetition in ships and in training establishments ashore, that the phrases and terms used will become those normally accepted and commonplace among seamen. Use of the contents of the vocabulary should be made as often as possible in preference to other wording of similar meaning.

In this way it is intended to become an acceptable "language", using the English tongue, for the interchange of intelligence between individuals of all maritime nations on the many and varied occasions when precise meanings and translations are in doubt, increasingly evident under modern conditions at sea.

The typographical conventions used throughout most of this vocabulary are as follows:

() brackets indicate that the part of the message enclosed within the brackets may be added where it is relevant.

/ oblique stroke indicates that the items on either side of the stroke are alternatives.

.. dots indicate that the relevant information is to be filled in where the dots occur.

App. 6

1 Procedure

Should it be necessary to indicate that phrases in this vocabulary are to b
used the following message may be sent:

"*Please use/I will use* the Standard Marine Vocabulary".

2 Standard Verbs

Where possible sentences should be introduced by one of the followin
verb forms:

Imperative

Always to be used when mandatory orders are being given.

You must	Do Not	Must I?
Indicative	*Negative*	*Interrogative*[2]
I require	I do not require	Do I require?
I am	I am not	Am I?
You are	You are not	Are you?
I have	I do not have	Do you have?
I can	I cannot	Can I? / Can you? } (Is it possible?)
I wish to	I do not wish to	Do you wish to?
I will (future)	I will not (future)	
You may	You need not	May I? (permission)
Advise[1]	Advise not[1]	
There is	There is not	Is there?
		What/where/when is?
		What/where/when are?

Note 1: "Advise", "Advise not" are to be used when recommendations are being given.
Note 2: The interrogative may be preceded by the use of the word "question".

3 Responses

Where the answer to a question is in the affirmative say:
"YES" followed by the appropriate phrase in full.
Where the answer to a question is in the negative say:
"NO" followed by the appropriate phrase in full.
Where the information is not immediately available but soon will be say:
"STAND BY".
Where the information cannot be obtained say:
"NO INFORMATION".
Where a message is not properly heard say:
"SAY AGAIN".
Where a message is not understood say:
"MESSAGE NOT UNDERSTOOD".

4 Urgent Messages

MAY DAY
PAN
SECURITE

are to be used to prefix Distress, Urgency and Safety signals respectively, in accordance with Radio Regulations.

ATTENTION ..... Repeated if necessary, may be used at the beginning of an urgent message.

5 Miscellaneous Phrases

5.1 What is your name (and call sign)?
5.2 How do you read me?

5.3 I read you .....

bad/1	with signal strength	1/barely perceptible
poor/2		2/weak
fair/3		3/fairly good
good/4		4/good
excellent/5		5/very good

5.4 Stand by on channel .....
5.5 Change to channel .....
5.6 I cannot read you. (*Pass your message through vessel* .....)/(*Advise try channel* .....).
5.7 I cannot understand you. Please use the *Standard Marine Vocabulary/International Code of Signals.*
5.8 I am passing a message for vessel .....
5.9 Correction .....
5.10 I am *ready/not ready* to receive your message.
5.11 I do not have channel ..... Please use channel .....

6 Repetition

If any parts of the message are considered sufficiently important to need safeguarding, use the word "repeat", eg "You will load 163 repeat 163 tons bunkers."
"Do not repeat do not overtake".

7 Position

When latitude and longitude are used, these shall be expressed in degrees and minutes (and decimals of a minute if necessary) North or South of the Equator and East or West of Greenwich.

When the position is related to a mark, the mark shall be a well-defined charted object. The bearing shall be in the 360 degree notation from True North and shall be that of the position *FROM* the mark.

Examples:

"THERE ARE SALVAGE OPERATIONS IN POSITION 15 DEGREES 34 MINUTES NORTH 61 DEGREES 29 MINUTES WEST".

"YOUR POSITION IS 137 DEGREES TWO POINT FOUR MILES *FROM* BARR HEAD LIGHTHOUSE".

8 Courses

Always to be expressed in 360° notation from North (true North unless otherwise stated). Whether this is *to* or *from* a mark can be stated.

9 Bearings

The bearing of the mark or vessel concerned, is the bearing in the 360° notation from North (true North unless otherwise stated) except in the case of relative bearings.

However, bearings may be either FROM the mark or FROM the vessel.

Examples:

"The Pilot boat is bearing 215° from you".

"Your bearing is 127° from the signal station".

Note: Vessels reporting their position should always quote their bearing *FROM* the mark, as described in paragraph 7.

Relative Bearings

Relative bearings can be expressed in degrees relative to the ship's head/bow. More frequently this is in relation to the port or starboard bow.

EXAMPLE:

"The buoy is 030° on your port bow".

(However relative, DF bearings are more commonly expressed in the 360° notation).

10 Distances

Preferably to be expressed in nautical miles or cables (tenths of a mile) otherwise in kilometres or metres, the unit always to be stated.

11 Speed

To be expressed in knots

(a) without further notation meaning speed through the water; or

(b) "ground speed" meaning speed over the ground.

12 Numbers

Numbers are to be spoken thus "One-Five-Zero" for 150. "Two point five" for 2.5.

13 Geographical Names

Place names used should be those on the chart or Sailing Directions in use. Should these not be understood latitude and longitude should be given.

14 Time

Times should be expressed in the 24 hour notation indicating whether GMT, zonetime or local shoretime is being used.

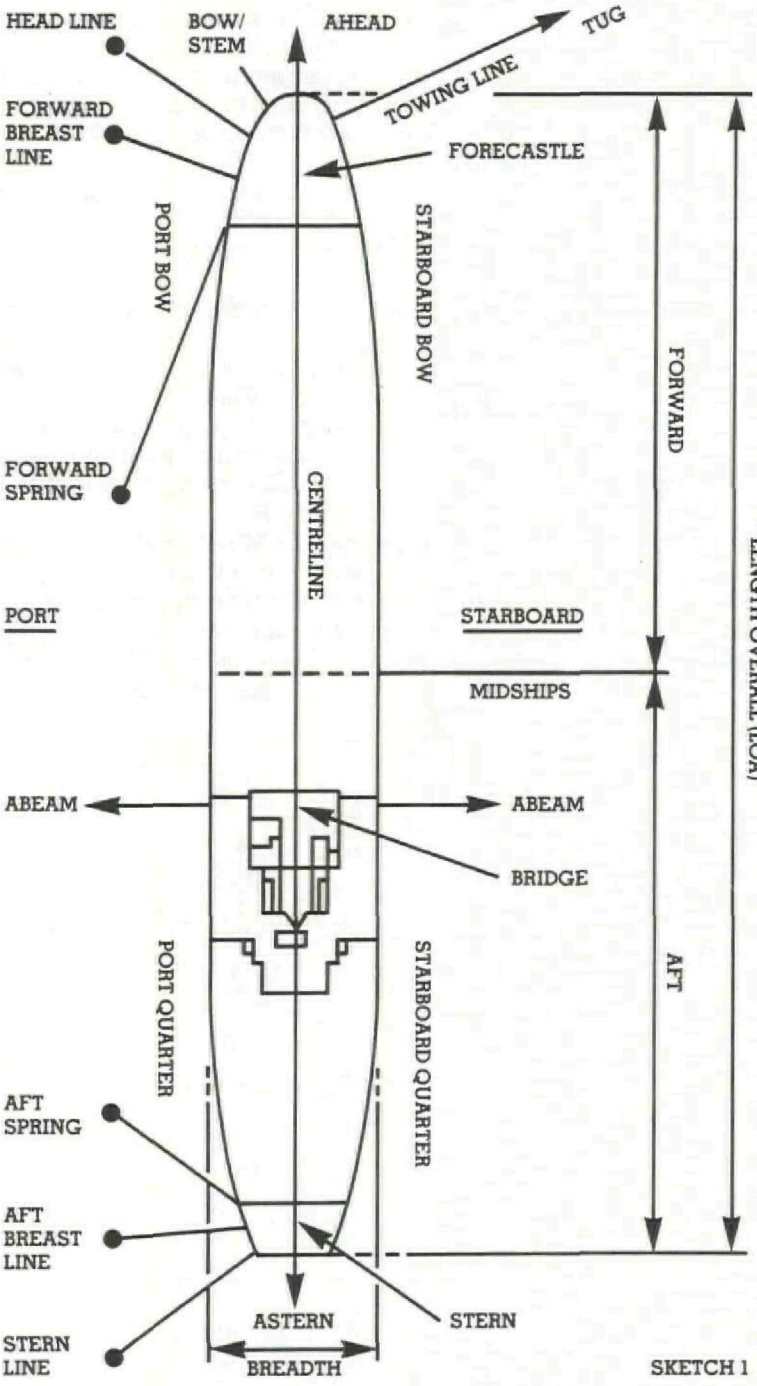
Note: In cases not covered by the above phraseology normal R/T practice will prevail.

PART II—GLOSSARY

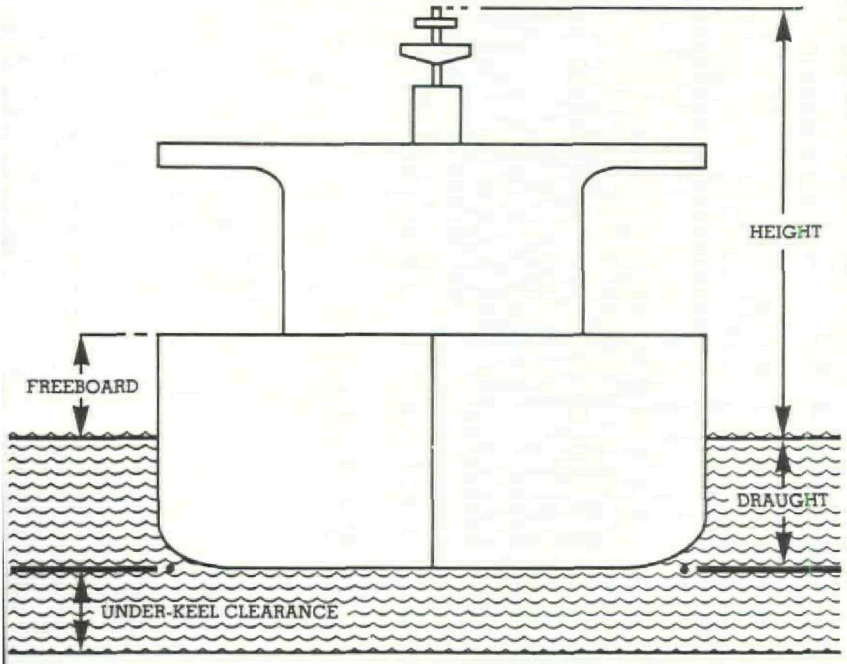
Anchor Position	Place where a specific vessel is anchored or is to anchor.
Calling-in-Point (C.I.P.)	(See Way Point)
"Correction"	An error has been made in this transmission, the corrected version is .....
Deep Water Route	A route in a designated area within definite limits which has been accurately surveyed for clearance of sea bottom and submerged obstacles to a minimum indicated depth of water.
Dragging (of anchor)	An anchor moving over the sea bottom involuntarily because it is no longer preventing the movement of the vessel.
Dredging Anchor	Vessel moving, under control, with anchor moving along the sea bottom.
Draught	Depth from waterline to ship's bottom, maximum/deepest unless otherwise specified.
Established	Brought into service/placed in position.
ETA	Estimated Time of Arrival

ETD	Estimated Time of Departure.
Fairway	Navigable part of waterway.
Fairway Speed	Mandatory speed in a fairway.
Foul (anchor)	Anchor has its own cable twisted around it or has fouled an obstruction.
Foul (propeller)	A line, wire, net, etc is wound round my propeller.
Hampered vessel	A vessel restricted in her ability to manoeuvre by the nature of her work.
Height	Height of highest point of vessel's structure above waterline, eg radar, funnel, cranes, masthead.
Icing	Formation of ice on ships.
Inoperative	Not functioning.
Inshore Traffic Zone	A designated area between the land and boundary of a traffic separation scheme and the adjacent coast intended for coastal traffic.
Mark	General term for a navigation mark, eg buoy, structure or topographical feature which may be used to fix a vessel's position.
Off-Shore Installation	Any off-shore structure (eg a drilling rig, production platform, etc) which may present a hazard to navigation.
Receiving Point	A mark or place at which a vessel comes under obligatory entry, transit, or escort procedure (such as for port entry, canal transit or ice breaker escort).
Reporting Point	(See Way Point.)
Roundabout	A circular area within definite limits in which traffic moves in a counter-clockwise direction around a specified point or zone.
Routeing	A complex of measures concerning routes aimed at reducing the risk of casualties; it includes traffic separation schemes, two-way routes, tracks, areas to be avoided, inshore traffic zones and deep water routes.
Separation Zone or Line	A zone or line separating traffic proceeding in one direction from traffic proceeding in another direction. A separation zone may also be used to separate a traffic lane from the adjacent inshore traffic zone.
Track	The recommended route to be followed when proceeding between predetermined positions.
Traffic	Movement of shipping.

Traffic Lane	An area within definite limits inside which one-way traffic is established.
Traffic Separation Scheme	A scheme which separates traffic proceeding in opposite or nearly opposite directions by the use of a separation zone or line, traffic lanes or by other means.
Two-Way-Route	An area within definite limits inside which two-way traffic is established.
Vessel Crossing	A vessel proceeding across a fairway/traffic lane/route.
Vessel Inward	A vessel which is proceeding from sea to harbour or dock.
Vessel Leaving	A vessel which is in the process of leaving a berth or anchorage. (When she has entered the navigable fairway she will be referred to as an outward, inward, crossing or turning vessel.)
Vessel Outward	A vessel which is proceeding from harbour or anchorage to seawards.
Vessel Turning	A vessel making LARGE alteration in course; such as to stem the tide when anchoring, or to enter, or proceed, after leaving a berth, or dock.
Way Point	A mark or place at which a vessel is required to report to establish its position. (Also known as Reporting Point or Calling-in-Point.)

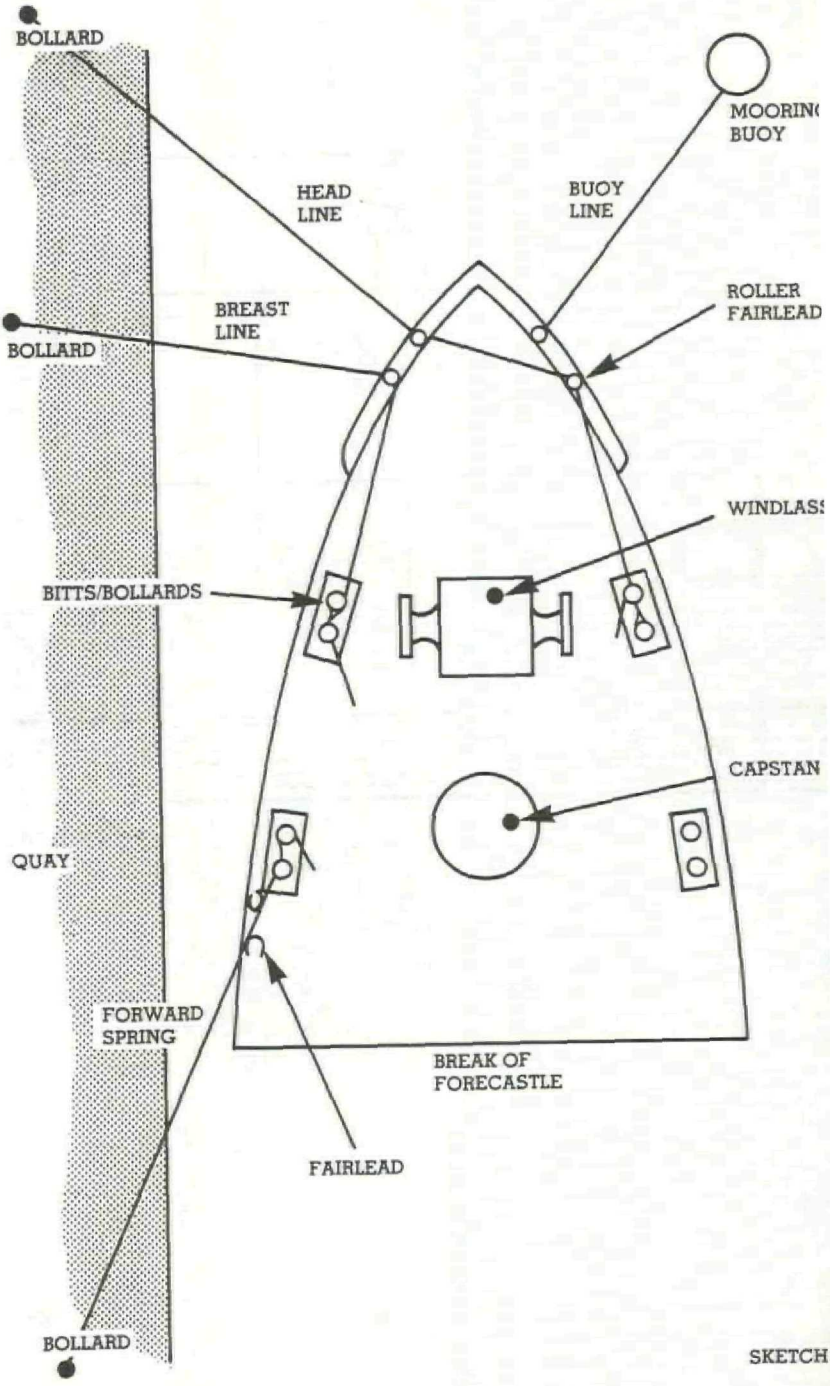

HEAD LINE
BOW/
STEM
AHEAD
TUG
TOWING LINE
FORWARD
BREAST
LINE
FORECASTLE
PORT BOW
STARBOARD BOW
FORWARD
LENGTH OVERALL (LOA)
FORWARD
SPRING
CENTRELINE
PORT
STARBOARD
MIDSHIPS
ABEAM
ABEAM
BRIDGE
PORT QUARTER
STARBOARD QUARTER
AFT
AFT
SPRING
AFT
BREAST
LINE
ASTERN
STERN
STERN
LINE
BREADTH

SKETCH 1



SKETCH 2

App. 6


BOLLARD
MOORING BUOY
HEAD LINE
BUOY LINE
BREAST LINE
ROLLER FAIRLEAD
BOLLARD
WINDLASS
BITTS/BOLLARDS
CAPSTAN
QUAY
FORWARD SPRING
BREAK OF FORECASTLE
FAIRLEAD
BOLLARD

SKETCH

PART III—PHRASE VOCABULARY

Contents

Chapter A: Dangers to Navigation, Warnings—Assistance

1 Warnings

1.1 You are running into danger
- shallow water ahead of you,
- submerged wreck ahead of you,
- risk of collision imminent,
- fog bank ahead of you,
- bridge will not open,
- .....
- .....

1.2 Dangerous obstruction or wreck reported at .....
1.3 Unknown object(s) in position .....
1.4 Floating ice in position ..... (considered hazardous to naviga tion.)
1.5 Mine(s) reported in position .....
1.6 Navigation is closed (prohibited) in area .....
1.7 There has been a collision in position ..... *keep clear/stand b to give assistance.*

1.8 It is dangerous
- to stop,
- to remain in present position,
- to alter course to starboard,
- to alter course to port,
- to approach close to my vessel,
- .....
- .....

1.9 Vessel ..... is aground in position .....
1.10 Vessel ..... is on fire in position .....
1.11 Large vessel leaving. Keep clear of approach channel.
1.12 Go to Emergency Anchorage.
1.13 Your navigation lights are not visible.
1.14 Your are going to run aground.

1.15 Keep clear
- I am jettisoning dangerous cargo,
- vessel is leaking dangerous (*inflammable/noxious/ poisonous*) cargo in position .....
- you are crossing my nets,
- I have a long tow,
- you are heading towards my tow,
- you are heading towards a towing line,
- .....
- .....

2 Assistance

2.1 I need help
- I am sinking,
- I am on fire,
- I have been in collision,
- I am aground,
- .....
- .....

2.2 I am on fire and have dangerous cargo on board.

.3 I am on fire { in the engine room, / in the *hold-cargo tanks*, / in the *accommodation/living spaces*, / ..... / ..... }

.4 I have lost a man overboard (at .....). Please help with search and rescue.

.5 *What is your position/What is the position of the vessel in distress?*

.6 What assistance is required?

.7 I require a *lifeboat/helicopter/medical assistance*/fire-fighting assistance/tug/ ..... tugs, etc.*

.8 I am coming to your assistance.

.9 I expect to reach you at ..... hrs.

.10 Please send a *boat/raft.*

.11 I am sending a *boat/raft* to you.

.12 Make a lee for *me/the boat/the raft.*

.13 I will make a lee for *you/the boat/the raft.*

.14 I cannot send a *boat/raft.*

.15 I will attempt rescue by Breeches-buoy.

.16 Is it safe to fire a rocket?

.17 It *is/is not safe* to fire a rocket.

.18 Please take command of search and rescue.

.19 *I am/Vessel ..... is* in command of search and rescue.

.20 Assistance is *not/no longer* required. You may proceed.

.21 You must keep radio silence in this area unless you have messages about the casualty.

Note: Further messages should be made using the International Code of Signals and the Merchant Ship Search and Rescue Manual (MERSAR).

Chapter B: General

. Anchoring

.1 I am anchored (at .....).

.2 I am heaving up anchor.

.3 My anchor is clear of the bottom.

.4 You *can/must* anchor { at ..... hours / in ..... position, / until pilot arrives, / until tug(s) arrive, / until there is sufficient water, / ..... / ..... }

Further messages should be made using the Medical Section of the International Code of gnals.

3.5 Do not anchor (in position .....).
3.6 Anchoring is prohibited.
3.7 I will anchor (at .....).
3.8 Vessel ..... is at anchor (at .....).
3.9 Are you *dragging/dredging* anchor?
3.10 *My/Your* anchor is dragging.
3.11 Do not dredge anchor.
3.12 You must heave up anchor.
3.13 You must shorten your cable to ..... shackles.
3.14 My anchor is foul.
3.15 You are obstructing *fairway/other traffic.*
3.16 You must anchor in a different position .....
3.17 You must anchor clear of the fairway.
3.18 What is the anchor position for me?
3.19 You have anchored in the wrong position.
3.20 I have *slipped/lost* my anchor (and cable) (and buoyed it) in po
ition .....

4 Arrival, Berthing and Departure

4.1 *Where do you come from/what was your last port of call?*
4.2 From what direction are you approaching?
4.3 What is your *ETA/ETD* (*at/from* .....)?
4.4 My *ETA/ETD* (*at/from* .....) is ..... hours.
4.5 Do not pass receiving point ..... until ..... hours.
4.6 What is your destination?
4.7 My destination is .....
4.8 What are my *berthing/docking* instructions?
4.9 Your berth *is/will be* clear (at ..... hours).
4.10 You will *berth/dock* at .....
4.11 May I enter?
4.12 You may enter (at ..... hours).
4.13 May I proceed?
4.14 You may proceed (at ..... hours).
4.15 Is there any other traffic?
4.16 There is a vessel *turning/manoeuvring* at .....
4.17 Vessel ..... will turn at .....
4.18 Vessel ..... will leave ..... at ..... hours.
4.19 Vessel ..... is leaving .....
4.20 Vessel ..... has left .....
4.21 Vessel ..... has entered fairway at .....
4.22 Your orders *are/are changed to* .....
4.23 Vessel ..... *inward/outward* in position .....
4.24 Are you underway?

4.25 I am underway.
4.26 I am ready to get underway.
4.27 I am not ready to get underway.
4.28 You must get underway.
4.29 I am making way through the water.
4.30 *I have/do not have* steerage way.
4.31 Vessel in position (make fast).
4.32 Move *ahead/astern* (..... feet/metres).
4.33 Let go *head/stern/spring/towing* line.

5 Course

5.1 What is your course?
5.2 My course is .....
5.3 Your course is correct.
5.4 What course do you advise?
5.5 Advise you make course .....
5.6 Advise you keep your present course.
5.7 You are steering a dangerous course (to be followed by indication of danger or advice for further action).
5.8 I am keeping my present course.
5.9 I cannot keep my present course.
5.10 I am altering course to .....
5.11 I am altering my course to *port/starboard (left/right)*.
5.12 Advise you alter course to ..... (at .....).

6 Draught and Height

6.1 What is your draught?
6.2 My draught is .....
6.3 What is your draught *forward/aft?*
6.4 My draught *forward/aft* is .....
6.5 Vessel ..... is of deep draught.
6.6 Do you have any list?
6.7 I have a list to *port/starboard* of ..... degrees.
6.8 Maximum permitted draught is .....
6.9 What is your freeboard?
6.10 My freeboard is .....
6.11 What is your height?
6.12 My height is .....

Note 1: When necessary it must be specified whether salt or fresh water draught is given.

Note 2: Height is the highest point of the vessel's structure above the waterline.

App. 6

7 A. Fairway Navigation

7.1 There is a vessel entering the fairway (at .....).
7.2 There is a vessel leaving the fairway (at .....).
7.3 I will proceed by ..... *fairway/route.*
7.4 Proceed by ..... *fairway/route.*
7.5 I will turn to *port/starboard (left/right)* before *anchoring/berthin*
at .....
7.6 I am proceeding at reduced speed.
7.7 I am crossing the fairway from ..... to .....
7.8 I am passing .....
7.9 *Buoy/other mark (name/number)* ..... distance ahead.
7.10 I am stopped (at .....).
7.11 The vessel *ahead/astern* of you is (*stopping/turning/* .....).
7.12 The vessel to *port/starboard* of you is (*stopping/turning/* .....)
7.13 Fairway speed is ..... knots.
7.14 You must keep to the ..... side of the *fairway/leading lin*
(..... *metres/cables*).
7.15 You are in the centre of the fairway.
7.16 You are on the leading line.
7.17 You are ..... side of the fairway.
7.18 You must stay clear of the fairway.
7.19 Do not overtake.
7.20 Do not cross the fairway.

B. Canal and Lock Operations

7.21 Request details of *commencement of transit/convoy/station in co*
voy.
7.22 You will join convoy ..... at ..... hours.
7.23 I cannot join convoy ..... because .....
7.24 Transit will begin at ..... hours.
7.25 Your station in convoy will be number .....
7.26 *Transit/Convoy* speed is ..... knots.
7.27 You must close up on vessel ahead of you.
7.28 *Convoys/Vessels* will pass in area .....
7.29 *You/Convoy* ..... must *wait/moor* at .....
7.30 What time can I enter the *canal/lock*?
7.31 You will enter *canal/lock* at ..... hours.
7.32 You must wait for lock clearance at ..... (until .....
hours).

Note: See also Section **4**.

Manoeuvring

The use of these messages does not relieve vessels of their obligations to comply with local bye-laws and the International Regulations for Preventing Collisions at Sea.

.1 I am altering my course to *port/starboard.*
.2 I am maintaining my course and speed.
.3 I am going astern.
.4 I am not making way through the water.
.5 What are your intentions?
.6 Keep well clear of me.
.7 I wish to overtake (.....).
.8 Do not overtake (.....).
.9 *Ship astern/vessel* ..... wishes to overtake (on your *port/starboard* side).
.10 You may overtake (.....).
.11 Vessel ..... nearing an obscured area (.....) approaching vessels please acknowledge.
.12 I am not under command.
.13 I am a hampered vessel (because .....).
.14 I am manoeuvring with difficulty. Keep clear of me.
.15 Advise you alter course to *port/starboard.*
.16 I will alter course to *port/starboard.*
.17 I cannot alter course to *port/starboard.*
.18 Advise you stop engines.
.19 I will stop engines.
.20 Do not pass *ahead/astern* of me.
.21 Do not pass on my *port/starboard* side.
.22 *I/Vessel* ..... will overtake (.....).
.23 Advise you pass *ahead/astern* of *me/vessel* .....
.24 I will pass *ahead/astern* of *you/vessel* .....
.25 Wait for ..... to cross ahead of you.
.26 I will wait for ..... to cross ahead of me.
.27 Advise you pass *North/South/East/West* of ..... *vessel mark.*
.28 I will pass *North/South/East/West* of ..... *vessel mark.*
.29 Wait for ..... to clear (..... *mark/position*) before *entering fairway/getting underway/leaving berth.*
.30 I will wait for ..... to clear (..... *mark/position*) before *entering fairway/getting underway/leaving berth.*

Pilotage

.1 I require a pilot.
.2 Do you require a pilot?
.3 Is the pilot boat on station?

9.4 Where can I take pilot?
9.5 You can take pilot *at point* ...../*near* ..... (at ..... hours).
9.6 At what time will the pilot be available?
9.7 Is pilotage compulsory?
9.8 You may navigate by yourself or wait for pilot at .....
9.9 Pilot is coming to you.
9.10 Pilot boat is approaching your vessel.
9.11 You must rig pilot ladder on *port/starboard* side.
9.12 Pilot ladder is rigged on *port/starboard* side.
9.13 Pilotage *suspended/resumed* for *all/small* vessels.
9.14 You must rig gangway combined with pilot ladder.

10 Position

10.1 What is your position?
10.2 What is my position?
10.3 *My/your* position is .....
10.4 Your position is ..... degrees ..... miles from .....
10.5 You are passing .....
10.6 You are entering area .....
10.7 What is your present position, course and speed?
10.8 My present position, course and speed is .....
10.9 What is the course to ..... ?
10.10 The course to ..... is .....
10.11 What is the course to reach you?
10.12 Course to reach me is .....
10.13 Do not arrive at ..... before ..... hours.
10.14 Do not arrive at ..... after ..... hours.
10.15 Say again your position to assist identification.
10.16 Has your position been obtained by *radar/decca/astronomica observation/* ..... ?
10.17 My position has been obtained by *radar/decca/astronomical obser vation/* .....

11 Radar—Ship to Ship/Shore to Ship/Ship to Shore

11.1 Is your radar working?
11.2 My radar *is/is not* working.
11.3 I do not have radar.
11.4 I have located you on my radar,* (your position is ..... degree ..... miles from .....).
11.5 I cannot locate you on my radar.

*This message may only be used when the vessel is positively identified.

11.6 You must alter *course/speed* for identification.
11.7 I have altered *course to* ..... */speed to* ..... for identification.
11.8 I have lost radar contact.
11.9 Have you altered your course?
11.10 Report your position to assist identification.
11.11 Vessel ahead of you is on the same course.
11.12 You are getting closer to the vessel(s) ahead.
11.13 Your position is .....
11.14 My position is .....
11.15 What range scale are you using?
11.16 I am using ..... miles range scale.
11.17 Advise you change to *larger/smaller* range scale.
11.18 I require shore based radar assistance.
11.19 Is shore based radar assistance available?
11.20 Shore based radar assistance *is/is not* available.
11.21 I am *at/approaching way point/reporting point/C.I.P.* ..... course ....., speed .....
11.22 I will stop at position ..... at ..... hours.
11.23 You are in the fairway.
11.24 Vessel on opposite course passing your *port/starboard* side.
11.25 Vessel is ..... *miles/metres* ahead on *port/starboard* bow.
11.26 Vessel ahead of you is on opposite course.
11.27 Vessel following will overtake you on *port/starboard* side.
11.28 You are leaving my screen.

12 Navigational Warnings

12.1 There is a dangerous *wreck/rock/shoal* in position ..... (marked by ..... showing .....).
12.2 There is a drifting mine reported in position .....
12.3 There is a gas leakage (from fractured pipeline) in position .....
12.4 There is a slick of oil in position ..... (extending .....).
12.5 There are *pipeline/cable-laying* operations in position .....
12.6 There are *salvage/oil clearance* operations in position .....
12.7 There are tankers transferring ..... in position .....
12.8 There are *current meters/oceanographic instruments* moored in position .....
12.9 There is a derelict adrift in position ..... (at ..... hours).
12.10 There is a vessel with a difficult tow on passage from ..... to .....
12.11 There is a *drilling rig/off-shore installation* ..... (name) established in position .....

12.12 There is a ..... *buoy/or other mark* in position ..... *unlit/ off station.*
12.13 There is a ..... *buoy/or other mark* (showing .....) established in position .....
12.14 There is a ..... *light/buoy/other mark* in position ..... now showing .....
12.15 There is a vessel carrying out *hydrographic/seismic* survey in *position/area* .....
12.16 Abnormally low tides expected in ..... *at/around* ..... hours.
12.17 Decca Chain ..... *red/green/purple* transmissions interrupted at ....., check all lane numbers.
12.18 Vessels must *keep clear of/avoid this area/area indicated.*
12.19 Vessels are advised to *keep clear of/avoid* this area.
12.20 Vessels must navigate with caution.
12.21 There is a vessel not under command in *position/area* .....
12.22 There is a hampered vessel in *position/area* .....
12.23 Radio beacon service ..... has been discontinued.
12.24 Advise you keep clear of sea area ..... search and rescue in operation.
12.25 *Route/traffic lane* ..... has been *suspended/discontinued/ diverted.*

13 Routeing

13.1 Is it clear for me to enter *traffic lane/route?*
13.2 *It is/is not* clear for you to enter *traffic lane/route.*
13.3 You may enter *traffic lane/route* at position ..... at ..... hours.
13.4 I will enter *traffic lane/route* ..... at ..... hours.
13.5 You are not complying with traffic regulations.
13.6 You are not keeping to your correct traffic lane.
13.7 There is a vessel in position ..... on course ..... and speed ..... which is not complying with traffic regulations.
13.8 There is a vessel anchored ahead of you in position .....
13.9 There is a vessel ahead obstructing your movements.
13.10 There is a hampered vessel in position ..... on course ..... and speed .....
13.11 You will meet crossing traffic at .....
13.12 There is a vessel crossing ..... traffic lane on course ..... and speed ..... in position .....
13.13 There are many fishing vessels at .....
13.14 *Route/traffic lane* ..... has been *suspended/discontinued/ diverted.*

14 Speed

14.1 What is your *present/full* speed?
14.2 My *present/full* speed is ..... knots.
14.3 What is your full manoeuvring speed?
14.4 My full manoeuvring speed is ..... knots.
14.5 You are proceeding at a dangerous speed.
14.6 Fairway speed is ..... knots.
14.7 You must reduce speed.
14.8 I am reducing speed.
14.9 You must increase speed.
14.10 I am increasing speed.
14.11 I cannot increase speed.
14.12 You must keep your present speed.
14.13 I am keeping present speed.
14.14 What speed do you advise?
14.15 Advise speed ..... knots.

15 Tide and Depth

15.1 What is the *tide/tidal stream* doing?
15.2 The tide is rising (it is ..... hours *before high water/after low water*).
15.3 The tide is rising (it is ..... *metres/feet below high water/above low water*).
15.4 The tide is falling (it is ..... hours *after high water/before low water*).
15.5 The tide is falling (it is ..... *metres/feet below high water/above low water*).
15.6 The tide is *slack/with you/against you.*
15.7 Present height of tide above datum is ..... at position .....
15.8 Tide is (..... *metres/feet) above/below* prediction.
15.9 The *tide/current* is ..... knots at .....
15.10 Tide is setting in direction .....
15.11 In your present position you will be aground at low water.
15.12 Is there sufficient depth of water?
15.13 There *is/is not* sufficient depth of water.
15.14 My draught is ..... metres. When can I *enter/pass* .....?
15.15 Charted depths are decreased by ..... *metres/feet* due to state of the sea/winds.
15.16 Abnormally low tides expected in ..... *at/around* ..... hours.

16 Tropical Storms

16.1 What is your latest tropical storm warning information?
16.2 Tropical storm centre (name) reported in .....
16.3 What is the atmospheric pressure (*and its change*)/(*at position/your position*)?
16.4 The atmospheric pressure is ..... and its change is (.....).
16.5 What is the position, direction and speed of the tropical storm centre (name)?
16.6 The tropical storm centre (name) was (at ..... hours) in position ..... moving ..... at ..... knots.
16.7 Tropical storm (name) at ..... hours was moving in direction ..... at ..... knots with maximum winds *Force/Speed* .....

17 Tugs

17.1 I require a *tug/* ..... *tugs.*
17.2 Must I take tug(s)?
17.3 How many tugs must be taken by my ship?
17.4 You must take ..... tug(s).
17.5 Where will tug(s) meet me?
17.6 Tug(s) will meet you at (*position* .....)/(*near* .....) (*at* ..... hours).
17.7 Tug services *suspended/resumed.*

18 Way Points/Reporting Points/C.I.P.

18.1 (Vessel indicated) I am *at/approaching* Way Point .....
18.2 (Vessel indicated) you are approaching Way Point .....
18.3 Report at next *Way Point/position* .....
18.4 Vessel ..... has reported at .....
18.5 You must arrive at ..... at ..... hours.

19 Weather

19.1 What is the weather forecast (for area .....)?
19.2 What is the wind direction and *force/speed* (in area .....)?
19.3 Wind direction and *force/speed* at ..... is .....
19.4 Is the wind expected to change?
19.5 The wind is *backing/veering* and *increasing/decreasing.*
19.6 Is the wind *force/speed* expected to *increase/decrease* at .....?
19.7 The wind at ..... will *increase/decrease* to *force/speed* ..... within the next ..... hours.

19.8 What is the visibility at .....?
19.9 Visibility at ..... is ..... *metres/miles.*
19.10 Visibility is reduced by *fog/rain/snow/dust* .....
19.11 Is visibility expected to change?
19.12 Visibility is expected to *improve/decrease* to ..... *metres/miles in/by* ..... hours.
19.13 What is the state of the sea at .....?
19.14 There is a *sea/swell* of height ..... *metres/feet* from .....
19.15 Are sea conditions expected to change within the next ..... hours?
19.16 *Sea/swell* is expected to *increase/decrease* during the next ..... hours.
19.17 Can icing be expected at .....?
19.18 Icing may be expected to form *slightly/moderately/severely/very severely* at .....
19.19 Icing should not be experienced at .....
19.20 Are there any ..... warnings in operation for .....?
19.21 A warning of *gales/storms* was issued at ..... hours starting .....
19.22 What is the latest information about storm .....

Chapter C: Special

20 Fishing

20.1 Navigate with caution small fishing boats are within ..... miles of me.
20.2 Is there fishing gear ahead of me?
20.3 You are heading towards fishing gear.
20.4 There are nets with buoys in this area.
20.5 Fishing gear has fouled my propeller.
20.6 You have caught my fishing gear.
20.7 Advise you recover your fishing gear.
20.8 Fishing in this area is prohibited.
20.9 You are approaching a prohibited fishing area.

21 Helicopters

21.1 Vessel ..... ready for helicopter.
21.2 (Vessel .....) helicopter now proceeding to you.
21.3 My course and speed is ..... degrees ..... knots.
21.4 Identify yourself (by method indicated).
21.5 (Vessel .....) I am now making identification signal.
21.6 You are identified.
21.7 Present relative wind direction and force is ..... degrees .....

21.8 Keep the wind on *starboard/port bow/quarter.*
21.9 Indicate *landing/contact* point.
21.10 Request permission to land on deck.
21.11 You may land on deck.
21.12 Do not land on deck.
21.13 Operation will be carried out using hoist.
21.14 Landing party ready to receive you.
21.15 I am *landing/commencing operation.*
21.16 Do not make fast hoist.

22 Ice Breakers

Note 1: If there is more than one vessel being assisted, ice breaker commands concerning all the vessels in a convoy are to be immediately obeyed and repeated consecutively by each vessel in turn. Ice breaker commands applying to a single vessel in a convoy are repeated only by that vessel.

Note 2: When being assisted by an ice breaker it is important to keep a continuous listening watch on the appropriate radiotelephone frequency and to keep a proper lookout for sound and visual signals.

Ice Breaker	*Assisted Vessel(s)*
1. Attention (*All vessels/vessel* .....)	1. Attention. Vessel ..... (*Name/ convoy number*) listening.
2. Ice-breaker assistance is now coming. (I will arrive in ..... hours.)	2. Okay. Ice-breaker assistance is now coming. (You will arrive in ..... hours.)
3. Ice-breaker assistance is now commencing. (Keeping a continuous radiotelephone listening watch.) (Your place in the convoy is .....) (You will be followed by vessel .....)	3. Okay. Ice-breaker assistance is now commencing. (I am keeping a continuous radiotelephone listening watch.) (My place in the convoy is .....) (I will be followed by vessel .....)
4. Go ahead; (follow me).	4. I am going ahead. (I am following you.)
5. Proceed along the ice channel.	5. I am proceeding along the ice channel.
6. Do not follow me; Stop. (Reason ..... may be given.)	6. I will not follow you. I am stopping.
7. Do not follow me. Proceed along the ice channel.	7. I will not follow you; I will proceed along the ice channel.
8. Slow down. (Reason ..... may be given.)	8. I am slowing down.
9. Increase your *speed/engine power.* (Reason ..... may be given.)	9. I am increasing my *speed/engine power.*

Ice Breaker	*Assisted Vessel(s)*
10. Reverse your engine *slow/half/full* astern	10. I am reversing my engine *slow/half/full* astern.
11. Full ahead immediately.	11. I am going full ahead immediately.
12. Stop your vessel immediately. (Reason ..... may be given.)	12. I am stopping my vessel immediately.
13. Keep a distance of ..... *cables/metres* between vessels.	13. I will keep a distance of ..... *cables/metres* between vessels.
14. Shorten the distance between vessels to ..... *cables/metres.*	14. I am shortening the distance to ..... *cables/metres.*
15. Increase the distance between vessels to ..... *cables/metres.*	15. I am increasing the distance between vessels to ..... *cables/metres.*
16. Prepare to *receive/cast off* tow line.	16. I will prepare to *receive/cast off* tow line.
17. Be ready to *receive/cast off* tow line.	17. I am ready to *receive/cast off* tow line.
18. Stop vessel to *receive/cast off* tow line.	18. I will stop and *receive/cast off* tow line.
19. Ice breakers assistance is suspended. (*Reason* ...../*time may be given.*)	19. Okay. Ice breakers assistance is suspended. (*Reason* ...../*time may be given.*)
20. Stay where you are.	20. I will stay where I am.
21. Switch on *bow/stern* searchlight.	21. I will switch on *bow/stern* searchlight.
22. Ice breaker (.....) assistance is finished. *(Reason ..... may be given.)	22. Thank you, Okay. Ice breaker (.....) assistance is finished. *(Reason ..... as given.)

* (*a*) (There is *open water/light ice condition* ahead.)
(*b*) (Proceed by yourself.)
(*c*) (Ice breaker (.....) will assist you in further navigation.)
(d) (Proceed by yourself to an area (.....).)
(Ice breaker (.....) will meet and escort you.)

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