

## **DISTRESS SIGNALS AND EMERGENCY FREQUENCIES**

### **121.5 MHz**

121.5 MHz Emergency Position Indicating Radio Beacon, or EPIRB (marine type) beacons can no longer be manufactured or sold in the U.S. By 2005 certain categories of aircraft, depending on circumstances and use, have been required to carry a 406 MHz Emergency Locator Transmitter (ELT). And as of January 1st, 2007, it is illegal to carry or use a 121.5 MHz EPIRB aboard any vessel in American waters. Please note: 121.5 MHz Man Overboard Devices will still be legal for use beyond 2009.

### **406 MHz**

Each 406 MHz beacon is phase modulated with a digital signal which has a unique ID encoded within its signal. As long as the beacon ID has been registered with NOAA (which is required by law), RCCs can quickly confirm that the distress is real.

### **243.0 MHz**

Military Air Distress (MAD)

**VHF-FM Channel 13 (156.650 MHz)** - Intership navigation (bridge-to-bridge)

**VHF-FM Channel 70 (156.525 MHz)** - Digital Selective Calling

**VHF-FM Channel 16 (156.800 MHz) or 2182 kHz (HF-AM)** - Distress, safety and calling.

Boaters should normally use channels listed as Non-Commercial. Channel 16 is used for calling other stations or for distress alerting. Channel 13 should be used to contact a ship when there is danger of collision. All ships of length 20m or greater are required to guard VHF channel 13, in addition to VHF channel 16, when operating within U.S. territorial waters. Users may be fined by the FCC for improper use of these channels. See Marine Radio Watch Requirements for further information.

### **CB radio Ch. 9 (27.065 MHz)**

If aboard a vessel in distress, do not call the Coast Guard on a Citizens Band (CB) radio; the Coast Guard does not monitor CB frequencies.

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45 degrees with the base of the auto alarm.

[51 FR 31213, Sept. 2, 1986, as amended at 58 FR 44952, Aug. 25, 1993]

### § 80.271 Technical requirements for portable survival craft radiotelephone transceivers.

(a) Portable survival craft radiotelephone transceivers must comply with the following:

(1) The transceivers must receive and transmit either on 457.525 MHz or on 156.800 MHz;

(2) The receiver must comply with the requirements in part 15, subpart C of this chapter and must have a sensitivity of not more than 2 microvolts. The sensitivity requirement must be met using the receiver sensitivity measurement procedure specified in the Radio Technical Commission for Marine Services (RTCM) Special Committee No. 66 Report MMS-R2;

(3) The effective radiated power of the transmitter must be at least 0.1 watt;

(4) The transceivers must be battery powered and operate for at least four hours with a transmit to receive ratio of 1:9 with no significant adverse effect upon the performance of the device;

(5) The transceivers must have a permanently attached waterproof label with the statement "Complies with the FCC requirements for survival craft two-way radiotelephone equipment"; and

(6) The antenna must be permanently attached to the device or its removal must require the use of a special tool.

(b) Portable radiotelephone transceivers that are already certificated may be used to satisfy the survival craft radiotelephone requirement until October 1, 1993, provided the device meets the technical requirements in paragraphs (a) (1) through (3) of this section.

(c) Survival craft radiotelephone equipment installed after October 1, 1988, must be certificated to meet the requirements of this section.

(d) After October 1, 1993, all portable radiotelephone transceivers that are used to satisfy the survival craft radiotelephone requirement must have been certificated to meet the requirements of this section.

(e) Portable radiotelephone transceivers which are type accepted to meet the requirements of this section must be identified by an appropriate note in the Commission's database.

[51 FR 31213, Sept. 2, 1986, as amended at 63 FR 36607, July 7, 1998]

### § 80.273 Technical requirements for radar equipment.

The technical requirements for radar equipment are contained in § 80.825.

## Subpart G—Safety Watch Requirements and Procedures

### COAST STATION SAFETY WATCHES

#### § 80.301 Watch requirements.

(a) Each public coast station operating on telegraphy frequencies in the band 405–535 kHz must maintain a watch for classes A1A, A2B and H2B emissions by a licensed radiotelegraph operator on the frequency 500 kHz for three minutes twice each hour, beginning at x h.15 and x h.45 Coordinated Universal Time (UTC).

(b) Each public coast station licensed to operate in the band 1605–3500 kHz must monitor such frequency(s) as are used for working or, at the licensee's discretion, maintain a watch on 2182 kHz.

(c) Except for distress, urgency or safety messages, coast stations must not transmit on 2182 kHz during the silence periods for three minutes twice each hour beginning at x h.00 and x h.30 Coordinated Universal Time (UTC).

(d) Each public coast station must provide assistance for distress communications when requested by the Coast Guard.

#### § 80.302 Notice of discontinuance, reduction, or impairment of service involving a distress watch.

(a) When changes occur in the operation of a public coast station which include discontinuance, reduction or suspension of a watch required to be maintained on 500 kHz, 2182 kHz, or 156.800 MHz, notification must be made by the licensee to the nearest district office of the U.S. Coast Guard as soon as practicable. The notification must include the estimated or known resumption time of the watch.

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(b) [Reserved]

**§ 80.303 Watch on 156.800 MHz (Channel 16).**

(a) During its hours of operation, each coast station operating in the 156-162 MHz band and serving rivers, bays and inland lakes except the Great Lakes, must maintain a safety watch on the frequency 156.800 MHz except when transmitting on 156.800 MHz.

(b) A coast station is exempt from compliance with the watch requirement when Federal, State, or Local Government stations maintain a watch on 156.800 MHz over 95% of the coast station's service area. Each licensee exempted by rule must notify the nearest district office of the U.S. Coast Guard at least thirty days prior to discontinuing the watch, or in the case of new stations, at least thirty days prior to commencing service. The Coast Guard may require any coast station to maintain the watch temporarily or permanently. The Coast Guard may also require any coast station to remain capable of either immediately resuming the watch or providing the Coast Guard direct dial-up access to the necessary 156.800 MHz transceiver at no charge so that the Coast Guard can maintain the watch.

(c) If the government station(s) providing the 156.800 MHz watch over the service area of an exempt station temporarily discontinues that watch, the exempt coast station upon receiving notice of this condition must maintain the watch on 156.800 MHz during the discontinuance. Automated maritime communications systems' compliance with this requirement is limited to the use of existing facilities.

[51 FR 31213, Sept. 2, 1986, as amended at 52 FR 35245, Sept. 18, 1987; 63 FR 40063, July 27, 1998]

**SHIP STATION SAFETY WATCHES**

**§ 80.304 Watch requirement during silence periods.**

(a) Each ship station operating on telegraphy frequencies in the band 405-535 kHz, must maintain a watch on the frequency 500 kHz of three minutes twice each hour beginning at x h.15 and x h.45 Coordinated Universal Time (UTC) by a licensed radiotelegraph offi-

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cer using either a loudspeaker or headphone.

(b) Each ship station operating on telephony on frequencies in the band 1605-3500 kHz must maintain a watch on the frequency 2182 kHz. This watch must be maintained at least twice each hour for 3 minutes commencing at x h.00 and x h.30 Coordinated Universal Time (UTC) using either a loudspeaker or headphone. Expect for distress, urgency or safety messages, ship stations must not transmit during the silence periods on 2182 kHz.

**§ 80.305 Watch requirements of the Communications Act and the Safety Convention.**

(a) Each ship of the United States which is equipped with a radiotelegraph station for compliance with part II of title III of the Communications Act or chapter IV of the Safety Convention must:

(1) Keep a continuous and efficient watch on 500 kHz by means of radio officers while being navigated in the open sea outside a harbor or port. In lieu thereof, on a cargo ship equipped with a radiotelegraph auto alarm in proper operating condition, an efficient watch on 500 kHz must be maintained by means of a radio officer for at least 8 hours per day in the aggregate, i.e., for at least one-third of each day or portion of each day that the vessel is navigated in the open sea outside of a harbor or port.

(2) Keep a continuous and efficient watch on the radiotelephone distress frequency 2182 kHz from the principal radio operating position or the room from which the vessel is normally steered while being navigated in the open sea outside a harbor or port. A radiotelephone distress frequency watch receiver having a loudspeaker and a radiotelephone auto alarm facility must be used to keep the continuous watch on 2182 kHz if such watch is kept from the room from which the vessel is normally steered. After a determination by the master that conditions are such that maintenance of the listening watch would interfere with the safe navigation of the ship, the watch may be maintained by the use of the radiotelephone auto alarm facility alone.

(3) Keep a continuous and efficient watch on the VHF distress frequency 156.800 MHz from the room from which the vessel is normally steered while in the open sea outside a harbor or port. The watch must be maintained by a designated member of the crew who may perform other duties, relating to the operation or navigation of the vessel, provided such other duties do not interfere with the effectiveness of the watch. Use of a properly adjusted squelch or brief interruptions due to other nearby VHF transmissions are not considered to adversely affect the continuity or efficiency of the required watch on the VHF distress frequency. This watch need not be maintained by vessels subject to the Bridge-to-Bridge Act and participating in a Vessel Traffic Services (VTS) system as required or recommended by the U.S. Coast Guard, when an efficient listening watch is maintained on both the bridge-to-bridge frequency and a separate assigned VTS frequency.

(b) Each cargo ship of the United States which is equipped with a radiotelephone station for compliance with part II of title III of the Communications Act or chapter IV of the Safety Convention must while being navigated outside of a harbor or port:

(1) Keep a continuous watch on 2182 kHz in the room from which the vessel is normally steered while at sea, whenever such station is not being used for authorized traffic. Such watch must be maintained by at least one officer or crewmember who may perform other duties relating to the operation or navigation of the vessel, provided such other duties do not interfere with the watch. A radiotelephone watch receiver having a loudspeaker and a radiotelephone auto alarm must be used to keep the continuous watch on 2182 kHz. After a determination by the master that maintenance of the watch would interfere with the safe navigation of the ship, the watch may be maintained by use of the radiotelephone auto alarm facility alone.

(2) Keep a continuous watch on 156.800 MHz from the room from which the vessel is normally steered. The watch must be maintained by a crewmember who may perform other duties, relating to the operation or navigation

of the vessel, provided such other duties do not interfere with the watch. Use of properly adjusted squelch or brief interruptions due to other nearby VHF transmissions are not considered to adversely affect the watch. This watch need not be maintained by vessels subject to the Bridge-to-Bridge Act and participating in a Vessel Traffic Services (VTS) system when a watch is maintained on both the bridge-to-bridge frequency and a VTS frequency.

(c) Each vessel of the United States transporting more than six passengers for hire, which is equipped with a radiotelephone station for compliance with part III of title III of the Communications Act must, while being navigated in the open sea or any tidewater within the jurisdiction of the United States adjacent or contiguous to the open sea, keep a continuous watch on 2182 kHz while the vessel is beyond VHF communication range of the nearest VHF coast station, whenever the radiotelephone station is not being used for authorized traffic. A VHF watch must be kept on 156.800 MHz whenever such station is not being used for authorized traffic. The VHF watch must be maintained at the vessel's steering station actually in use by the qualified operator as defined by §80.157 or by a crewmember who may perform other duties relating to the operation or navigation of the vessel, provided such other duties do not interfere with the watch. The use of a properly adjusted squelch is not considered to adversely affect the watch. The VHF watch need not be maintained by vessels subject to the Bridge-to-Bridge Act and participating in a Vessel Traffic Services (VTS) system when an efficient listening watch is maintained on both the bridge-to-bridge frequency and a VTS frequency.

**§80.306 Provisions governing the radiotelegraph watch.**

(a) The radio officer must use the main or reserve receiver, and either headphones or a loudspeaker to keep the watch on 500 kHz.

(b) During the watch, the radio officer may temporarily interrupt the required watch on 500 kHz while transmitting or receiving signals or messages to or from a station but only if it

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is not feasible to simultaneously handle such traffic and listen on 500 kHz by split headphones or a loudspeaker. The watch on 500 kHz must, however, without exception be maintained during the silence periods.

(c) During this watch, on vessels subject to the Communications Act and the Safety Convention on international voyages, the radio officer may discontinue listening when 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 watch must always be maintained by a radio officer using headphones or loudspeaker during the silence periods. The term "essential radio duties" in this rule includes urgent repairs of radio-communication equipment used for safety or radio navigational equipment by order of the master.

(d) When authorized by the master, the radio officer may perform maintenance repair of communications, navigation or other electronic equipment outside of the radiotelegraph room, provided that the listening watch on 500 kHz can be maintained by headphones, loudspeakers, portable receivers, or other suitable means. The watch on 500 kHz must be maintained in the radiotelegraph room during the silence period.

### § 80.307 Compulsory use of radiotelegraph auto alarm.

The radiotelegraph auto alarm required on a cargo ship subject to the radiotelegraph provisions of part II of title III of the Communications Act or the Safety Convention must be in operation, connected to the main antenna and adjusted for optimum efficiency at all times while the ship is being navigated in the open sea when a radio officer is not listening on the frequency 500 kHz, except under the circumstances as set forth in § 80.306(b).

### § 80.308 Watch required by the Great Lakes Radio Agreement.

(a) Each ship of the United States that is equipped with a radiotelephone station for compliance with the Great Lakes Radio Agreement must when underway keep a watch on:

(1) 156.800 MHz on board a vessel 20 meters (65 feet) and over in length, a vessel engaged in towing (See § 80.951(b)), or a vessel carrying more than 6 passengers for hire. This watch must be maintained whenever the station is not being used for authorized traffic. However, a watch on 156.800 MHz need not be maintained by a vessel maintaining a watch on the bridge-to-bridge frequency 156.650 MHz and participating in a Vessel Traffic Services (VTS) system and maintaining a watch on the specified VTS frequency.

(2) 156.650 MHz on board a vessel 38 meters (124 feet) and over in length, a vessel engaged in towing (See § 80.951(b)), or a vessel carrying more than six passengers for hire. This watch must be maintained continuously and effectively. Sequential monitoring is not sufficient. Portable VHF equipment may be used to meet this requirement. Vessels are exempted from this requirement while transiting the St. Lawrence Seaway and complying with the Joint Regulations of the St. Lawrence Seaway Authority and St. Lawrence Seaway Development Corporation between the lower exit of St. Lambert Lock at Montreal and Cross-over Island, New York and in the Welland Canal and approaches between Calling in Point No. 15 and No. 16.

(b) The watch must be maintained by the master, or person designated by the master, who may perform other duties provided they do not interfere with the effectiveness of the watch.

[53 FR 17052, May 13, 1988]

### § 80.309 Watch required by the Bridge-to-Bridge Act.

In addition to the watch requirement contained in § 80.148, all vessels subject to the Bridge-to-Bridge Act must keep a watch on the designated navigational frequency. The watch must be maintained by the master or person in charge of the vessel or the person designated by the master or person in charge to pilot or direct the movement of the vessel. The person standing watch may perform other duties provided such other duties do not interfere with the watch.

[51 FR 31213, Sept. 2, 1986, as amended at 57 FR 61012, Dec. 23, 1992]

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**§ 80.310 Watch required by voluntary vessels.**

Voluntary vessels not equipped with DSC must maintain a watch on 156.800 MHz (channel 16) whenever the radio is operating and is not being used to communicate. Noncommercial vessels, such as recreational boats, may alternatively maintain a watch on 156.450 MHz (channel 9) for call and reply purposes.

[57 FR 19552, May 7, 1992]

DISTRESS, ALARM, URGENCY AND SAFETY PROCEDURES

**§ 80.311 Authority for distress transmission.**

A mobile station in distress may use any means at its disposal to attract attention, make known its position, and obtain help. A distress call and message, however, must be transmitted only on the authority of the master or person responsible for the mobile station. No person shall knowingly transmit, or cause to be transmitted, any false or fraudulent signal of distress or related communication.

**§ 80.312 Priority of distress transmissions.**

The distress call has absolute priority over all other transmissions. All stations which hear it must immediately cease any transmission capable of interfering with the distress traffic and must continue to listen on the frequency used for the emission of the distress call. This call must not be addressed to a particular station. Acknowledgement of receipt must not be given before the distress message which follows it is sent.

**§ 80.313 Frequencies for use in distress.**

The frequencies specified in the bands below are for use by mobile stations in distress. The conventional emission is shown. When a ship station cannot transmit on the designated frequency or the conventional emission, it may use any available frequency or emission. Frequencies for distress and safety calling using digital selective calling techniques are listed in § 80.359(b). Distress and safety NB-DP

frequencies are indicated by footnote 2 in § 80.361(b).

Frequency band	Emission	Carrier frequency
405-535 kHz .....	A2B .....	500 kHz.
1605-3500 kHz .....	J3E .....	2182 kHz.
4000-27, 5000 kHz ....	A2B .....	8364 kHz.
118-136 MHz .....	A3E .....	121.500 MHz.
156-162 MHz .....	F3E, PON	156.800 MHz 156.750 MHz.
243 MHz .....	A3N .....	243.000 MHz.

The maximum transmitter power obtainable may be used.

[51 FR 31213, Sept. 2, 1986; 51 FR 34984, Oct. 1, 1986]

**§ 80.314 Distress signals.**

(a) The international radiotelegraphy distress signal consists of the group "three dots, three dashes, three dots" (... ---...), symbolized herein by SOS, transmitted as a single signal in which the dashes are slightly prolonged so as to be distinguished clearly from the dots.

(b) The international radiotelephone distress signal consists of the word MAYDAY, pronounced as the French expression "m'aider".

(c) These distress signals indicate that a mobile station is threatened by grave and imminent danger and requests immediate assistance.

**§ 80.315 Distress calls.**

(a) The radiotelegraph distress call consists of:

- (1) The distress signal SOS, sent three times;
- (2) The word DE;
- (3) The call sign of the mobile station in distress, sent three times.

(b) The radiotelephone distress call consists of:

- (1) The distress signal MAYDAY spoken three times;
- (2) The words THIS IS;
- (3) The call sign (or name, if no call sign assigned) of the mobile station in distress, spoken three times.

**§ 80.316 Distress messages.**

(a) The radiotelegraph distress message consists of:

- (1) The distress signal SOS;
- (2) The name of the mobile station in distress;
- (3) Particulars of its position;
- (4) The nature of the distress;

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(5) The kind of assistance desired;  
(6) Any other information which might facilitate rescue.

(b) The radiotelephone distress message consists of:

- (1) The distress signal MAYDAY;
- (2) The name of the mobile station in distress;
- (3) Particulars of its position;
- (4) The nature of the distress;
- (5) The kind of assistance desired;
- (6) Any other information which might facilitate rescue, for example, the length, color, and type of vessel, number of persons on board.

(c) As a general rule, a ship must signal its position in latitude and longitude, using figures for the degrees and minutes, together with one of the words NORTH or SOUTH and one of the words EAST or WEST. In radiotelegraphy, the signal .-.- must be used to separate the degrees from the minutes. When practicable, the true bearing and distance in nautical miles from a known geographical position may be given.

## § 80.317 Radiotelegraph and radiotelephone alarm signals.

(a) The international 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 consecutive dashes one second. The purpose of this special signal is the actuation of automatic devices giving the alarm to attract the attention of the operator when there is no listening watch on the distress frequency.

(b) The international radiotelephone alarm signal consists of two substantially sinusoidal audio frequency tones transmitted alternately. One tone must have a frequency of 2200 Hertz and the other a frequency of 1300 Hertz, the duration of each tone being 250 milliseconds. When generated by automatic means, the radiotelephone alarm signal must be transmitted continuously for a period of at least 30 seconds, but not exceeding one minute; when generated by other means, the signal must be transmitted as continuously as practicable over a period of approximately one minute. The purpose of this special signal is to attract the attention of the person on watch or to actu-

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ate automatic devices giving the alarm.

### § 80.318 Use of alarm signals.

(a) The radiotelegraph or radiotelephone alarm signal, as appropriate, must only be used to announce:

- (1) That a distress call or message is about to follow;
- (2) The transmission of an urgent cyclone warning. In this case the alarm signal may only be used by coast stations authorized by the Commission to do so; or
- (3) The loss of a person or persons overboard. In this case the alarm signal may only be used when the assistance of other ships is required and cannot be satisfactorily obtained 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.

(b) In cases described in paragraphs (a)(2) and (3) of this section, the transmission of the warning or message by radiotelegraphy must not begin until two minutes after the end of the radiotelegraph alarm signal.

### § 80.319 Radiotelegraph distress call and message transmission procedure.

(a) The radiotelegraph distress procedure consists of the following six steps; however, when time is vital, the first and second steps may be omitted. These two steps of the distress procedure may also be omitted in circumstances when transmission of the alarm signal is considered unnecessary:

- (1) The radiotelegraph alarm signal;
- (2) The distress call and an interval of two minutes;
- (3) The distress call;
- (4) The distress message;
- (5) Two dashes of ten to fifteen seconds each;
- (6) The call sign of the mobile station in distress.

(b) The radiotelegraph distress transmissions must be sent by means of the international Morse code at a speed not exceeding 16 words per minute nor less than 8 words per minute.

(c) The distress message, preceded by the distress call, must be repeated at intervals, especially during the 500 kHz international silence periods, until an

answer is received. The radiotelegraph alarm signal may also be repeated, if necessary.

(d) The transmissions under paragraphs (a) (5) and (6) of this section, which are to permit direction finding stations to determine the position of the station in distress, may be repeated at frequent intervals if necessary.

(e) When the mobile station in distress receives no answer to a distress message transmitted on the distress frequency, the message may be repeated on any other available frequency on which attention might be attracted.

**§ 80.320 Radiotelephone distress call and message transmission procedure.**

(a) The radiotelephone distress procedure consists of:

- (1) The radiotelephone alarm signal (whenever possible);
- (2) The distress call;
- (3) The distress message.

(b) Radiotelephone distress transmissions must be made slowly and distinctly, each word being clearly pronounced to facilitate transcription.

(c) After the transmission by radiotelephony of its distress message, the mobile station may be requested to transmit suitable signals followed by its call sign or name, to permit direction-finding stations to determine its position. This request may be repeated at frequent intervals if necessary.

(d) The distress message, preceded by the distress call, must be repeated at intervals until an answer is received. This repetition must be preceded by the radiotelephone alarm signal whenever possible.

(e) When the mobile station in distress receives no answer to a distress message transmitted on the distress frequency, the message may be repeated on any other available frequency on which attention might be attracted.

**§ 80.321 Acknowledgement of receipt of distress message.**

(a) Stations of the maritime mobile service which receive a distress message from a mobile station which is beyond any possible doubt in their vicinity must immediately acknowledge receipt.

However, in areas where reliable communication with one or more coast stations is practicable, ship stations may defer this acknowledgement for a short interval so that a coast station may acknowledge receipt.

(b) Stations of the maritime mobile service which receive a distress message from a mobile station which beyond any possible doubt is not in their vicinity, must allow a short interval of time to elapse before acknowledging receipt of the message in order to permit stations nearer to the mobile station in distress to acknowledge receipt without interference.

**§ 80.322 Form of acknowledgement.**

(a) The acknowledgement of receipt of a radiotelegraph distress message is transmitted in the following form:

- (1) The distress signal SOS;
- (2) The call sign of the station sending the distress message, sent three times;
- (3) The word DE;
- (4) The call sign of the station acknowledging receipt, sent three times;
- (5) The group RRR;
- (6) The message signal SOS.

(b) The acknowledgement of receipt of a radiotelephone distress message is transmitted in the following form:

- (1) The distress signal MAYDAY;
- (2) The call sign or other identification of the station sending the distress message, spoken three times;
- (3) The words THIS IS;
- (4) The call sign or other identification of the station acknowledging receipt, spoken three times;
- (5) The word RECEIVED;
- (6) The distress signal MAYDAY.

**§ 80.323 Information furnished by an acknowledging station.**

(a) Every mobile station which acknowledges receipt of a distress message must on the order of the master or person responsible for the ship, aircraft, or other vehicle carrying such mobile station, transmit as soon as possible the following information in the order shown:

- (1) Its identifier;
- (2) Its position;
- (3) The speed at which it is proceeding towards, and the approximate

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time it will take to reach the mobile station in distress.

(b) Before sending this message, the station must ensure that it will not interfere with the emissions of other stations better situated to render immediate assistance to the station in distress.

**§ 80.324 Transmission of distress message by station not itself in distress.**

(a) A mobile station or a land station which learns that a mobile station is in distress must transmit a distress message in any of the following cases:

(1) When the station in distress cannot transmit the distress message.

(2) When the master or person responsible for the ship, aircraft, or other vehicle not in distress, or for the land station, believes that further help is necessary.

(3) When, although not in a position to assist, it has heard a distress message which has not been acknowledged. When a mobile station transmits such a distress message, it must notify the authorities who may be able to assist.

(b) Transmission must be made on the international distress frequencies or on any other available frequency on which attention might be attracted.

(c) Transmission of the distress message must always be preceded by the call indicated below, which must itself be preceded whenever possible by the radiotelegraph or radiotelephone alarm signal. This call consists of:

(1) When radiotelegraphy is used:

(i) The signal DDD SOS SOS SOS DDD;

(ii) The word DE;

(iii) The call sign of the transmitting station, sent three times.

(2) When radiotelephony is used:

(i) The signal MAYDAY RELAY, spoken three times;

(ii) The words THIS IS;

(iii) The call sign or other identification of the transmitting station, spoken three times.

(d) When the radiotelegraph alarm signal is used, an interval of two minutes must be allowed, whenever this is considered necessary, before the transmission of the call mentioned in paragraph (c)(1) of this section.

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**§ 80.325 Control of distress traffic.**

(a) Distress traffic consists of all messages relating to the immediate assistance required by the mobile station in distress. In distress traffic, the distress signal must be sent before the call and at the beginning of the preamble of any radiotelegram.

(b) The control of distress traffic is the responsibility of the mobile station in distress or of the station which has sent the distress message. These stations may delegate the control of the distress traffic to another station.

(c) The station in distress or the station in control of 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 must address these instructions "to all stations" or to one station only, according to circumstances. In either case, it must use one of the following signals which are reserved for use by the mobile station in distress and for the station controlling distress traffic:

(1) In radiotelegraphy, the abbreviation QRT, followed by the distress signal SOS.

(2) In radiotelephony, the signal SEELONCE MAYDAY.

(d) If essential, any station of the mobile service near the ship, aircraft, or other vehicle in distress may also impose silence. It must use for this purpose:

(1) In radiotelegraphy, the abbreviation QRT, followed by the word DISTRESS and its own call sign;

(2) In radiotelephony, the word SEELONCE, followed by the word DISTRESS and its own call sign or other identification.

**§ 80.326 Notification of resumption of normal working.**

(a) When distress traffic has ceased, or when complete silence is no longer necessary on a frequency which has been used for distress traffic, the station which has controlled this traffic must transmit on that frequency a message addressed "to all stations" indicating that normal working may be resumed.

(1) In radiotelegraphy, this message consists of:

(i) The distress signal SOS;

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(ii) The call "to all stations" (CQ), sent three times;

(iii) The word DE;

(iv) The call sign of the station sending the message;

(v) The time of handing in the message;

(vi) The name and call sign of the mobile station which was in distress;

(vii) The service abbreviation QUM.

(2) In radiotelephony, this message consists of:

(i) The distress signal MAYDAY;

(ii) The call "Hello all stations", spoken three times;

(iii) The words THIS IS;

(iv) The call sign or other identification of the station sending the message;

(v) The time of handing in of the message;

(vi) The name and call sign of the mobile station which was in distress;

(vii) The words SEELONCE FEENEE OR PRU-DONCE.

(b) Until they receive the foregoing message indicating that normal or limited working may be resumed, 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 the distress traffic is taking place.

### § 80.327 Urgency signals.

(a) 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. The urgency signal must be sent only on the authority of the master or person responsible for the mobile station.

(b) In radiotelegraphy, the urgency signal consists of three repetitions of the group XXX, sent with the individual letters of each group, and the successive groups clearly separated from each other. It must be transmitted before the call.

(c) In radiotelephony, the urgency signal consists of three oral repetitions of the group of words PAN PAN transmitted before the call.

(d) The urgency signal has priority over all other communications except distress. All mobile and land stations which hear it must not interfere with

the transmission of the message which follows the urgency signal.

[51 FR 31213, Sept. 2, 1986, as amended at 52 FR 35245, Sept. 18, 1987]

### § 80.328 Urgency message.

(a) The urgency signal and call, and the message following it, must be sent on one of the international distress frequencies. Stations which cannot transmit on a distress frequency may use any other available frequency on which attention might be attracted.

(b) Mobile stations which hear the urgency signal must continue to listen for at least three minutes. At the end of this period, if no urgency message has been heard, they may resume their normal service. However, land and mobile stations which are in communication on frequencies other than those used for the transmission of the urgency signal and of the call which follows it may continue their normal work without interruption provided the urgency message is not addressed "to all stations".

(c) When the urgency signal has been sent before transmitting a message "to all stations" which calls for action by the stations receiving the message, the station responsible for its transmission must cancel it as soon as it knows that action is no longer necessary. This message of cancellation must likewise be addressed "to all stations".

### § 80.329 Safety signals.

(a) The safety signal indicates that the station is about to transmit a message concerning the safety of navigation or giving important meteorological warnings.

(b) In radiotelegraphy, the safety signal consists of three repetitions of the group TTT, sent with the individual letters of each group, and the successive groups clearly separated from each other. It must be sent before the call.

(c) In radiotelephony, the safety signal consists of the word SECURITE, pronounced as in French, spoken three times and transmitted before the call.

(d) The safety signal and call must be sent on one of the international distress frequencies (500 kHz or 8364 kHz radiotelegraph; 2182 kHz or 156.8 MHz radiotelephone). Stations which cannot transmit on a distress frequency may

### § 80.330

use any other available frequency on which attention might be attracted.

#### § 80.330 Safety message.

(a) The safety signal and call must be followed by the safety message. Where practicable, the safety message should be sent on a working frequency, and a suitable announcement to this effect must be made at the end of the call.

(b) Except for the cases mentioned in paragraph (c) of this section, the safety signal when sent on the frequency 500 kHz must be transmitted toward the end of the first available silence period; the safety message must be transmitted immediately after the silence period.

(c) Messages about meteorological warnings, of cyclones, dangerous ice, dangerous wrecks, or any other imminent danger to marine navigation must be preceded by the safety signal.

(d) Stations hearing the safety signal must not make any transmission likely to interfere with the message.

#### § 80.331 Bridge-to-bridge communication procedure.

(a) Vessels subject to the Bridge-to-Bridge Act transmitting on the designated navigational frequency must conduct communications in a format similar to those given below:

(1) This is the (name of vessel). My position is (give readily identifiable position, course and speed) about to (describe contemplated action). Out.

(2) Vessel off (give a readily identifiable position). This is (name of vessel) off (give a readily identifiable position). I plan to (give proposed course of action). Over.

(3) (Coast station), this is (vessel's name) off (give readily identifiable position). I plan to (give proposed course of action). Over.

(b) Vessels acknowledging receipt must answer "(Name of vessel calling). This is (Name of vessel answering). Received your call." and follow with an indication of their intentions. Communications must terminate when each ship is satisfied that the other no longer poses a threat to its safety and is ended with "Out".

(c) Use of power greater than 1 watt in a bridge-to-bridge station shall be

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limited to the following three situations:

(1) Emergency.

(2) Failure of the vessel being called to respond to a second call at low power.

(3) A broadcast call as in paragraph (a)(1) of this section in a blind situation, e.g., rounding a bend in a river.

#### § 80.332 Equipment to aid search and rescue operations.

(a) Survival craft stations may transmit distress, urgency and safety signals, calls and messages.

(b) EPIRB's may transmit only in accordance with the requirements of subparts V and X of this part.

#### § 80.333 Stations in the maritime mobile-satellite service.

The provisions of §§ 80.311 and 80.324 apply to the operations of ship earth stations in the maritime mobile-satellite service.

## Subpart H—Frequencies

### RADIOTELEGRAPHY

#### § 80.351 Scope.

The following sections describe the carrier frequencies and general uses of radiotelegraphy with respect to the following:

- Distress, urgency, safety, call and reply.
- Working.
- Digital selective calling (DSC).
- Narrow-band direct-printing (NB-DP).
- Facsimile.

#### § 80.353 General uses—radiotelegraphy.

(a) Unless otherwise indicated radiotelegraphy may be used by ship and public coast stations only.

(b) The signal code for Morse telegraphy must be the international Morse code signals specified in the Telegraph Regulations annexed to the International Telecommunication Convention.

(c) To facilitate communications, ship stations transmitting by means of radiotelegraphy must use the service abbreviations ("Q" signals) listed in Appendix 14 to the ITU Radio Regulations whenever practicable.