

## § 80.201

Address: 9 digit maritime mobile service identity of called station.  
Category: Routine—symbol 100.  
Self-identification: 9 digit ship station identity.  
Message 1: Telecommand symbol 126 sent twice.  
Message 2: Telecommand symbol 126 sent 6 times.  
End of sequence: Symbol 127.  
Error-check character: Check sum.

(7) Such transmissions are permitted only on channel 70 and the transmitter must be inhibited automatically whenever there is another call in progress on Channel 70.

(8) The call sequence for any one alarm must not be repeated until after an interval of at least five seconds. Further repetition is permitted only after intervals of at least fifteen minutes each. Repetitions following fifteen-minute waiting intervals must not exceed three.

[54 FR 10008, Mar. 9, 1989, as amended at 62 FR 40305, July 28, 1997]

## Subpart E—General Technical Standards

### § 80.201 Scope.

This subpart gives the general technical requirements for the use of frequencies and equipment in the maritime services. These requirements include standards for equipment authorization, frequency tolerance, modulation, emission, power and bandwidth.

### § 80.203 Authorization of transmitters for licensing.

(a) Each transmitter authorized in a station in the maritime services after September 30, 1986, except as indicated in paragraphs (g), (h) and (i) of this section, must be certificated by the Commission for part 80 operations. The procedures for certification are contained in part 2 of this chapter. Transmitters of a model authorized before October 1, 1986 will be considered type accepted for use in ship or coast stations as appropriate.

(b) The external controls, of maritime station transmitters capable of operation in the 156–162 MHz band and manufactured in or imported into the United States after August 1, 1990, or sold or installed after August 1, 1991, must provide for selection of only mar-

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itime channels for which the maritime station is authorized. Such transmitters must not be capable of being programmed by station operators using external controls to transmit on channels other than those programmed by the manufacturer, service or maintenance personnel.

(1) Any manufacturer procedures and special devices for programming must only be made available to service companies employing licensed service and maintenance personnel that meet the requirements of § 80.169(a) and must not be made available with information normally provided to consumers.

(2) The channels preprogrammed by manufacturers, service and maintenance personnel for selection by the external controls of a maritime station transmitter must be limited to those channels listed in this part and the duplex channels listed in Appendix 18 of the international Radio Regulations. The duplex channels listed in Appendix 18 of the international Radio Regulations must be used only in the specified duplex mode. Simplex operations on Appendix 18 duplex channels that are not in accordance with this part are prohibited.

(3) Programming of authorized channels must be performed only by a person holding a first or second class radiotelegraph operator's certificate or a general radiotelephone operator's license using any of the following procedures:

- (i) Internal adjustment of the transmitter;
- (ii) Use of controls normally inaccessible to the station operator;
- (iii) Use of external devices or equipment modules made available only to service and maintenance personnel through a service company; and
- (iv) Copying of a channel selection program directly from another transmitter (cloning) using devices and procedures made available only to service and maintenance personnel through a service company.

(4) VHF maritime radio station transmitters capable of being programmed by station operators by

means of external controls that are installed in a maritime station by August 1, 1991, are authorized for use indefinitely at the same maritime station.

(c) All VHF ship station transmitters that are either manufactured in or imported into the United States, on or after August 1, 1993, or are initially installed on or after August 1, 1994, must be equipped with an automatic timing device that deactivates the transmitter and reverts the transmitter to the receive mode after an uninterrupted transmission period of five minutes, plus or minus 10 per cent. Additionally, such transmitters must have a device that indicates when the automatic timer has deactivated the transmitter. VHF ship station transmitters initially installed before August 1, 1994, are authorized for use indefinitely at the same maritime station. VHF handheld, portable transmitters are not required to comply with the requirements in paragraph (c) of this section except when used as described in §80.141.

(d) Except for radar equipment, applicants for certification of radio equipment designed to satisfy Part II of Title III of the Communications Act or the Safety Convention must also submit with their application a working unit of the type for which certification is desired. Manufacturers of radar equipment intended for installation on voluntarily equipped ships by persons without FCC operators license must include with their equipment authorization application a manual that provides step-by-step procedures for the installation, calibration, and operation of the radar stations.

(e) Double sideband (DSB) radiotelephone equipment operating in the 1605-27500 kHz band will be authorized only for use in ship stations. Such equipment must comply with Chapter IV of the Safety Convention, operate only on the frequency 2182 kHz, and be marked "Distress and Safety Use Only".

(f) Transmitters certificated for single sideband suppressed carrier radiotelephone transmissions may be used for facsimile transmissions without filing for a certification modification provided the transmitters retain cer-

tification and comply with the applicable standards in this part.

(g) Manufacturers of ship earth station transmitters intended for use in the INMARSAT space segment must comply with the verification procedures given in part 2 of this chapter. Such equipment must be verified in accordance with the technical requirements provided by INMARSAT and must be type approved by INMARSAT for use in the INMARSAT space segment. The ship earth station input/output parameters, the data obtained when the equipment is integrated in system configuration and the pertinent method of test procedures that are used for type approval of the station model which are essential for the compatible operation of that station in the INMARSAT space segment must be disclosed by the manufacturer upon request of the FCC or the United States Signatory. Witnessing of the type approval tests and the disclosure of the ship earth station equipment design or any other information of a proprietary nature will be at the discretion of the ship earth station manufacturer. Transmitters of a model that was certificated by MARISAT for use in its system will be considered verified for use in the INMARSAT system. However, the continued use of such equipment will not be permitted after September 1, 1991, unless verified under the Commission's procedures.

(h) In addition to the certification requirements contained in part 2 of this chapter applicants for type acceptance of 406.025 MHz radiobeacons must also comply with the certification procedures contained in §80.1061 of this part.

(i) Certification is not required for U.S. Government furnished transmitters to fulfill a U.S. Government contract. However, such transmitters must comply with all technical requirements in this part.

(j) Certification is not required for transmitters authorized for developmental stations.

(k) Certification of individual radio transmitters requested by station applicants or licensees must also follow the certification procedure in paragraph (a) of this section. However, operation of such transmitters must be

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limited to the specific units individually identified on the station authorization.

(l) Ship station transmitters may be certificated for emissions not shown in § 80.205 of this part. However, such emissions are not authorized for use in the United States or for communications with U.S. coast stations.

(m) Ship station MF, HF, and VHF transmitters may employ external or internal devices to send synthesized voice transmissions for distress and safety purposes on any distress and safety frequency authorized for radiotelephony listed in § 80.369 provided the following requirements are met:

(1) The technical characteristics of the distress transmissions must comply with this part.

(2) A transmitter and any internal device capable of transmitting a synthesized voice message must be certificated as an integral unit.

(3) The synthesized voice distress transmission must begin with the words "this is a recording" and should be comprised of at least:

(i) the radiotelephone distress call as described in § 80.315(b) and the ship's position as described in § 80.316(c); or

(ii) the radiotelephone distress message as described in § 80.316(b). If available, the ship's position should be reported as described in § 80.316(c).

(4) Such transmission must be initiated manually by an off-switch that is protected from inadvertent activation and must cause the transmitter to switch to an appropriate distress and safety frequency. The radiotelephone distress call and message described in §§ 80.203(m)(3) (i) and (ii), respectively, may be repeated. However, the entire transmission including repeats must not exceed 45 seconds from beginning to end. Upon ending the transceiver must return to the receive mode and must not be capable of sending the synthesized distress call for at least thirty seconds. Placing the switch to the off position must stop the distress transmission and permit the transmitter to be used to send and receive standard voice communications.

(5) Use of the microphone must cause the synthesized voice distress transmission to cease and allow the immediate use of the transmitter for sending and receiving standard voice communications.

diate use of the transmitter for sending and receiving standard voice communications.

(n) Applications for type acceptance of all marine radio transmitters operating in the 2–27.5 MHz band or the 156–162 MHz band received on or after June 17, 1999, must have a DSC capability in accordance with § 80.225. This requirement does not apply to transmitters used with AMTS or hand-held portable transmitters.

[51 FR 31213, Sept. 2, 1986, as amended at 53 FR 41434, Oct. 28, 1987; 53 FR 37308, Sept. 26, 1988; 54 FR 31839, Aug. 2, 1989; 56 FR 3787, Jan. 31, 1991; 56 FR 57496, Nov. 12, 1991; 56 FR 57988, Nov. 15, 1991; 57 FR 8727, Mar. 12, 1992; 62 FR 40305, July 28, 1997; 63 FR 36606, July 7, 1998]

**§ 80.205 Bandwidths.**

(a) An emission designator shows the necessary bandwidth for each class of emission of a station except that in ship earth stations it shows the occupied or necessary bandwidth, whichever is greater. The following table gives the class of emission and corresponding emission designator and authorized bandwidth:

Class of emission	Emission designator	Authorized bandwidth (kHz)
A1A	160HA1A	0.4
A1B <sup>1</sup>	160HA1B	0.4
A1D <sup>12</sup>	16K0A1D	20.0
A2A	2K66A2A	2.8
A2B <sup>1</sup>	2K66A2B	2.8
A2D <sup>12</sup>	16K0A2D	20.0
A3E	6K00A3E	8.0
A3N <sup>2</sup>	2K66A3N	2.8
A3X <sup>3</sup>	3K20A3X	25.0
F1B <sup>4</sup>	280HF1B	0.3
F1B <sup>5</sup>	300HF1B	0.5
F1B <sup>6</sup>	16K0F1B	20.0
F1C	2K80F1C	3.0
F1D <sup>12</sup>	16K0F1D	20.0
F2B <sup>6</sup>	16K0F2B	20.0
F2C <sup>7</sup>	16K0F2C	20.0
F2D <sup>12</sup>	16K0F2D	20.0
F3C	2K80F3C	3.0
F3C <sup>7</sup>	16K0F3C	20.0
F3E <sup>8</sup>	16K0F3E	20.0
F3N <sup>9</sup>	20M0F3N	20,000.0
G1D <sup>12</sup>	16K0G1D	20.0
G2D <sup>12</sup>	16K0G2D	20.0
G3D <sup>10</sup>	16K0G3D	20.0
G3E <sup>8</sup>	16K0G3E	20.0
G3N <sup>3 13</sup>	16K0G3N	20.0
H2A	1K40H2A	2.8
H2B <sup>1</sup>	1K40H2B	2.8
H3E <sup>11</sup>	2K80H3E	3.0
H3N	2K66H3N	2.8
J2A	160HJ2A	0.4
J2B <sup>4</sup>	280HJ2B	0.3
J2B <sup>5</sup>	300HJ2B	0.5
J2B	2K80J2B	3.0