

Federal Communications Commission

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(2) The duration tolerance of each tone must be ± 10 milliseconds;

(3) The interval between successive tones must not exceed 4 milliseconds;

(4) The amplitude ratio of the tones must be flat within 1.6 dB;

(5) The output of the device must be sufficient to modulate the associated transmitter for H2B emission to at least 70 percent, and for J2B emission to within 3 dB of the rated peak envelope power;

(6) Light from the device must not interfere with the safe navigation of the ship;

(7) After activation the device must automatically generate the radiotelephone alarm signal for not less than 30 seconds and not more than 60 seconds unless manually interrupted;

(8) After generating the radiotelephone alarm signal or after manual interruption the device must be immediately ready to repeat the signal;

(9) The transmitter must be automatically switched from the stand-by condition to the transmit condition at the start and return to the stand-by condition at the conclusion of the radiotelephone alarm signal.

(d) Any device used by a station to automatically generate the radiotelephone alarm signal must be certificated by the Commission.

[51 FR 31213, Sept. 2, 1986, as amended at 54 FR 40059, Sept. 29, 1989; 63 FR 36606, July 7, 1998]

§ 80.223 Special requirements for survival craft stations.

(a) Survival craft stations capable of transmitting on:

(1) 2182 kHz must be able to operate with A3E or H3E and J2B and J3E emissions;

(2) 121.500 MHz must be able to operate with A3E or A3N emission.

(b) Survival craft stations must be able to receive the frequency and types of emission which the transmitter is capable of using.

(c) Any EPIRB carried as part of a survival craft must comply with the specific technical and performance requirements for its class contained in subpart V of this chapter.

[68 FR 46966, Aug. 7, 2003, as amended at 73 FR 4482, Jan. 25, 2008]

§ 80.225 Requirements for selective calling equipment.

This section specifies the requirements for voluntary digital selective calling (DSC) equipment and selective calling equipment installed in ship and coast stations, and incorporates by reference ITU-R M.476-5; ITU-R M.493-13; ITU-R M.541-9; ITU-R M.625-3; RTCM Paper 56-95/SC101-STD; and IEC 62238 (all incorporated by reference, *see* § 80.7).

(a) The requirements for DSC equipment voluntarily installed in coast or ships stations are as follows:

(1) Prior to March 25, 2009, DSC equipment must meet the requirements of the following standards in order to be approved for use:

(i) RTCM Paper 56-95/SC101-STD and ITU-R M.493-13 (both incorporated by reference, *see* § 80.7) (including only equipment classes A, B, D, and E); or

(ii) ITU-R M.493-13 and, in the case of Class D DSC equipment only, IEC 62238 (both incorporated by reference, *see* § 80.7).

(2) Beginning March 25, 2009, the Commission will not accept new applications (but will continue to process then-pending applications) for certification of non-portable DSC equipment that does not meet the requirements of ITU-R M.493-13 and, in the case of Class D DSC equipment only, IEC 62238 (both incorporated by reference, *see* § 80.7).

(3) Beginning March 25, 2012, the Commission will not accept new applications (but will continue to process then-pending applications) for certification of handheld, portable DSC equipment that does not meet the requirements of ITU-R M.493-13 and, in the case of Class D DSC equipment only, IEC 62238 (both incorporated by reference, *see* § 80.7).

(4) The manufacture, importation, sale or installation of non-portable DSC equipment that does not comply with either of the standards referenced in paragraph (a)(2) of this section is prohibited beginning March 25, 2011.

(5) The manufacture, importation, or sale of handheld, portable DSC equipment that does not comply with either of the standards referenced in paragraph (a)(3) of this section is prohibited beginning March 25, 2015.

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(6) Approved DSC equipment that has been manufactured, sold, and installed in conformity with the requirements of this section may be used indefinitely.

(b) Manufacturers of Class C DSC equipment to be used on United States vessels must affix a clearly discernible permanent plate or label visible from the operating controls containing the following:

WARNING. This equipment is designed to generate a digital maritime distress and safety signal to facilitate search and rescue. To be effective as a safety device, this equipment must be used only within communication range of a shore-based VHF marine channel 70 distress and safety watch system. The range of the signal may vary but under normal conditions should be approximately 20 nautical miles.

(c) Selective calling equipment, other than that designed in accordance with paragraph (a) of this section, is authorized as follows:

(1) Equipment used in conjunction with the Automated Maritime Telecommunications System (AMTS) in the band 216–220 MHz.

(2) Equipment used to perform a selective calling function during narrow-band direct-printing (NB-DP) operations in accordance with ITU-R M.476-5 or ITU-R M.625-3 or ITU-R M.493-13 (all incorporated by reference, see § 80.7), and

(3) Equipment functioning under the provisions of § 80.207(a) includes the brief use of radiotelegraphy, including keying only the modulating audio frequency, tone signals, and other signaling devices to establish or maintain communications provided that:

(i) These signalling techniques are not used on frequencies designated for general purpose digital selective calling (DSC) and distress and safety DSC calling as listed in § 80.359;

(ii) The authorized radiotelephone emission bandwidth is not exceeded;

(iii) Documentation of selective calling protocols must be available to the general public; and,

(iv) Harmful interference is not caused to stations operating in accord-

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ance with the International Radio Regulations.

[54 FR 10009, Mar. 9, 1989, as amended at 62 FR 40306, July 28, 1997; 68 FR 46966, Aug. 7, 2003; 73 FR 4482, Jan. 25, 2008; 76 FR 67611, Nov. 2, 2011]

§ 80.227 Special requirements for protection from RF radiation.

As part of the information provided with transmitters for ship earth stations, manufacturers of each such unit must include installation and operating instructions to help prevent human exposure to radiofrequency (RF) radiation in excess of the RF exposure guidelines specified in § 1.1307(b) of the Commission’s Rules.

[53 FR 28225, July 27, 1988]

§ 80.229 Special requirements for automatic link establishment (ALE).

Brief signalling for the purposes of measuring the quality of a radio channel and thereafter establishing communication shall be permitted within the 2 MHz–30 MHz band. Public coast stations providing high seas service are authorized by rule to use such signalling under the following conditions:

(a) The transmitter power shall not exceed 100 W ERP;

(b) Transmissions must sweep linearly in frequency at a rate of at least 60 kHz per second, occupying any 3 kHz bandwidth for less than 50 milliseconds;

(c) The transmitter shall scan the band no more than four times per hour;

(d) Transmissions within 6 kHz of the following protected frequencies and frequency bands must not exceed 10 µW peak ERP:

(1) Protected frequencies (kHz)				
2091.0	4188.0	6312.0	12290.0	16420.0
2174.5	4207.5	8257.0	12392.0	16522.0
2182.0	5000.0	8291.0	12520.0	16695.0
2187.5	5167.5	8357.5	12563.0	16750.0
2500.0	5680.0	8364.0	12577.0	16804.5
3023.0	6215.0	8375.0	15000.0	20000.0
4000.0	6268.0	8414.5	16000.0	25000.0
4177.5	6282.0	10000.0		

(2) Protected bands (kHz)	
4125.0–4128.0	
8376.25–8386.75	
13360.0–13410.0	
25500.0–25670.0	

(e) The instantaneous signal, which refers to the peak power that would be