

**§ 80.863 Antenna system.**

(a) An antenna system must be installed which is as nondirectional and as efficient as is practicable for the transmission and reception of radio ground waves over seawater. The installation and construction of the required antenna must insure operation in time of emergency.

(b) If the required antenna is suspended between masts or other supports liable to whipping, a safety link which, under heavy stress, will operate to greatly reduce such stress without breakage of the antenna, the halyards, or other antenna-supporting elements, must be installed.

(c) When an electrical ground connection is used as an element of the antenna system, the connection must be efficient.

**§ 80.864 Emergency electric lights.**

(a) Emergency electric light(s) must be installed to illuminate the operating controls of the radiotelephone installation at the principal operating position, the card of instructions, and the radiotelephone station clock if the latter is not self-illuminated.

(b) The emergency electric light(s) must be energized from the reserve power supply, if a reserve power supply is required. In cases where a reserve power supply is not required, the emergency lights must be energized independently of the system which supplies the normal lighting.

**§ 80.865 Radiotelephone station clock.**

A clock having a face of at least 12.7 cm (5 in.) in diameter must be mounted in a position that can be observed from the principal operating position.

[58 FR 44953, Aug. 25, 1993]

**§ 80.866 Spare antenna.**

A spare transmitting antenna completely assembled for immediate erection must be provided. If the installed transmitting antenna is suspended between supports, this spare antenna must be a single-wire transmitting antenna of the same length and must also include suitable insulators.

**§ 80.867 Ship station tools, instruction books, circuit diagrams and testing equipment.**

(a) Each ship station must be provided with such tools, testing equipment, instruction books and circuit diagrams to enable the radiotelephone installation to be maintained in efficient working condition while at sea. Each ship station licensee must compile a list of spare parts, tools, test equipment and circuit diagrams it considers necessary for compliance with this requirement. This list must be available at inspection. The Commission may consider equipment manufacturer lists of recommended spare parts, tools, test equipment, and repair circuit diagrams in determining compliance with this subsection. These items must be located convenient to the radio room.

(b) The testing equipment must include an instrument or instruments for measuring A.C. volts, D.C. volts and ohms.

**§ 80.868 Card of instructions.**

A card of instructions giving a clear summary of the radiotelephone distress procedure must be securely mounted and displayed in full view of the principal operating position.

**§ 80.869 Test of radiotelephone station.**

Unless the normal use of the required radiotelephone station demonstrates that the equipment is operating, a test communication on a required or working frequency must be made each day the ship is navigated. When this test is performed by a person other than the master and the equipment is found to be defective the master must be promptly notified.

**§ 80.871 VHF radiotelephone station.**

(a) All passenger ships irrespective of size and all cargo ships of 300 gross tons and upwards subject to part II of title III of the Communications Act or to the Safety Convention are required to carry a VHF radiotelephone station complying with this subpart. Ships subject only to the Communications Act may use a VHF radiotelephone installation meeting the technical standards of the Bridge-to-Bridge Act to satisfy the watch requirements of

**§ 80.872**

§ 80.305(a)(3) if the equipment can transmit and receive on 156.800 MHz.

(b) The VHF radiotelephone station must be installed to insure safe and effective operation of the equipment and facilitate repair. It must be protected against vibration, moisture and temperature.

(c) The principal operating position of the radiotelephone station must be in the room from which the ship is normally steered while at sea.

(d) The radiotelephone stations on ships subject to Part II of Title III of the Communications Act must be capable of operating on the frequency 156.800 MHz and in other respects meet the requirements of § 80.143. The radiotelephone stations on ships subject to the Safety Convention must be capable of operating in the simplex mode on the ship station transmitting frequencies specified in the frequency band 156.025 MHz to 157.425 MHz and in the semiduplex mode on the two frequency channels specified in the following table:

Channel designators	Transmitting frequencies (MHz)	
	Ship station	Coast station
60	156.025	160.625
01	156.050	160.650
61	156.075	160.675
02	156.100	160.700
62	156.125	160.725
03	156.150	160.750
63	156.175	160.775
04	156.200	160.800
64	156.225	160.825
05	156.250	160.850
65	156.275	160.875
06	156.300	.....
66	156.325	160.925
07	156.350	160.950
67	156.375	156.375
08	156.400	.....
68	156.425	156.425
09	156.450	156.450
69	156.475	156.475
10	156.500	156.500
11	156.550	156.550
71	156.575	156.575
12	156.600	156.600
72	156.625	.....
13	156.650	156.650
73	156.675	156.675
14	156.700	156.700
74	156.725	156.725
15	156.750	156.750
16	156.800	156.800
17	156.850	156.850
77	156.875	.....
18	156.900	161.500
78	156.925	161.525
19	156.950	161.550

**47 CFR Ch. I (10-1-20 Edition)**

Channel designators	Transmitting frequencies (MHz)	
	Ship station	Coast station
79	156.975	161.575
20	157.000	161.600
80	157.025	161.625
21	157.050	161.650
81	157.075	161.675
22	157.100	161.700
82	157.125	161.725
23	157.150	161.750
83	157.175	161.775
24	157.200	161.800
84	157.225	161.825
25	157.250	161.850
85	157.275	161.875
26	157.300	161.900
86	157.325	161.925
27	157.350	161.950
87	157.375	161.975
28	157.400	162.000
88	157.425	162.025

<sup>1</sup> Guard band.

[51 FR 31213, Sept. 2, 1986; 52 FR 35246, Sept. 18, 1987, as amended at 54 FR 40059, Sept. 29, 1989; 73 FR 4487, Jan. 25, 2008; 82 FR 27213, June 14, 2017]

**§ 80.872 The VHF radiotelephone installation.**

The VHF radiotelephone installation includes:

- (a) A VHF radiotelephone transmitter,
- (b) A VHF radiotelephone receiver,
- (c) A power supply,
- (d) An antenna system.

**§ 80.873 VHF radiotelephone transmitter.**

(a) The transmitter must be capable of transmission of G3E emission on 156.300 MHz and 156.800 MHz, and on frequencies which have been specified for use in a system established to promote safety of navigation. Vessels in waters of other Administrations are required to communicate on any channel designated by that Administration for navigational safety in the bands specified in § 80.871(d).

(b) The transmitter must be adjusted so that the transmission of speech normally produces peak modulation within the limits of 75 percent and 100 percent.

(c) The transmitter must deliver a carrier power between 8 and 25 watts into a 50 ohm effective resistance. Provision must be made for reducing the carrier power to a value between 0.1 and 1.0 watts.