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(3) *Coast Station frequencies.* Coast stations may use any working carrier frequency for distress, safety and calling listed in §80.357(b)(1) which is not identified with a specific use.

(d) *Frequencies in the VHF bands.* (1) Survival craft stations using 121.500 MHz may be assigned A3N emission for radiobeacon purposes.

(2) EPIRB stations may be assigned 121.500 MHz and 243.000 MHz using A3E, A3X and NON emission or 156.750 MHz and 156.800 MHz using G3N emission to aid search and rescue operations. See subpart V of this part.

[51 FR 31213, Sept. 2, 1986; 51 FR 34984, Oct. 1, 1986; 52 FR 35245, Sept. 18, 1987; 56 FR 9886, Mar. 8, 1991; 56 FR 11516, Mar. 19, 1991]

§80.357 Morse code working frequencies.

This section describes the working frequencies assignable to maritime stations for A1A or J2A radiotelegraphy.

(a) *Ship station frequencies*—(1) *Frequencies in the 100–160 kHz band.* The following table describes the working carrier frequencies in the 100–160 kHz band which are assignable to ship stations. A ship station may also transmit on a radiotelegraphy working channel of a coast station within the 100–160 kHz band when directed to do so by the coast station provided interference is not caused to any land, fixed, broadcast, or radiolocation station.

100–160 (kHz)
152
153
154
155
156
157
158

(2) *Frequencies in the 405–525 kHz band.* The following table describes the working carrier frequencies in the 405–525 kHz band which are assignable to ship stations. A ship station may transmit on a radiotelegraphy working channel of a coast station in the 415–490 kHz band when directed to do so by the coast station.

405–525 (kHz)
[1] 410
425
454
468
480
[2] 512
[3] 518

[1] The frequency 410 kHz may be used on a secondary basis for the transmission of radiodetermination information and for transmitting by radiotelegraph radiodetermination related messages to direction-finding stations.

[2] The frequency 512 kHz may be used as a supplementary calling frequency when 500 kHz is used for distress, safety and urgency communications. The use of the 512 kHz as a working frequency is prohibited in areas where it is used as a supplementary calling frequency when 500 kHz is used for distress, safety, and urgency communications.

[3] The frequency 518 kHz is a receive only frequency by ship stations. It is used by U.S. Coast Guard coast stations for NB–DP transmissions of meteorological and navigational warnings to ships.

(3) *Frequencies in the 2000–27500 kHz band.* This paragraph describes the working frequencies and Channel Series in the 2000–27500 kHz band which are assignable to ship stations.

(i) Two Channel Series will be assigned for routine use to each ship station. Frequencies from any other Channel Series may be used if the frequencies in the assigned Channel Series are not adequate for communications.

SHIP MORSE WORKING FREQUENCIES (KHZ)

Channel Series:							
W1	4187.0	6285.0	8342.0 8343.5	12422.0 12453.0	16619.0 16650.0 16681.0	22242.0 22273.0	25161.5
W2	4187.5	6285.5	8342.5 8344.0	12422.5 12453.5	16619.5 16650.5 16681.5	22242.5 22273.5	25162.0
W3	4188.0	6286.0	8343.0 8344.5	12423.0 12454.0	16620.0 16651.0 16682.0	22243.0 22274.0	25162.5
W4	4188.5	6286.5	8343.5 8345.0	12423.5 12454.5	16620.5 16651.5 16682.5	22243.5 22274.5	25163.0
W5	4189.0	6287.0	8344.0 8345.5	12424.0 12455.0	16621.0 16652.0 16683.0	22244.0 22275.0	25163.5
W6	4189.5	6287.5	8344.5 8346.0	12424.5 12455.5	16621.5 16652.5 16619.0	22244.5 22275.5	25164.0
W7	4190.0	6288.0	8345.0 8346.5	12425.0 12456.0	16622.0 16653.0 16619.5	22245.0 22276.0	25164.5
W8	4190.5	6288.5	8345.5 8347.0	12425.5 12456.5	16622.5 16653.5 16620.0	22245.5 22276.5	25165.0
W9	4191.0	6289.0	8346.0 8347.5	12426.0 12457.0	16623.0 16654.0 16620.5	22246.0 22277.0	25165.5
W10	4191.5	6289.5	8346.5 8348.0	12426.5 12457.5	16623.5 16654.5 16621.0	22246.5 22270.5	25166.0
W11	4192.0	6290.0	8347.0 8348.5	12427.0 12458.0	16624.0 16655.0 16621.5	22247.0 22278.0	25166.5
W12	4192.5	6290.5	8347.5 8349.0	12427.5 12458.5	16624.5 16655.5 16622.0	22247.5 22278.5	25167.0
W13	4193.0	6291.0	8348.0 8349.5	12428.0 12459.0	16625.0 16656.0 16622.5	22248.0 22279.0	25167.5
W14	4193.5	6291.5	8348.5 8350.0	12428.5 12459.5	16625.5 16656.5	22248.5 22242.0	25168.0

					16623.0		
W15	4194.0	6292.0	8349.0	12429.0	16626.0	22249.0	25168.5
			8350.5	12460.0	16657.0	22242.5	
					16623.5		
W16	4194.5	6292.5	8349.5	12429.5	16626.5	22249.5	25169.0
			8351.0	12460.5	16657.5	22243.0	
					16624.0		
W17	4195.0	6293.0	8350.0	12430.0	16627.0	22250.0	25169.5
			8351.5	12461.0	16658.0	22243.5	
					16624.5		
W18	4195.5	6293.5	8350.5	12430.5	16627.5	22250.5	25170.0
			8352.0	12461.5	16658.5	22244.0	
					16625.0		
W19	4196.0	6294.0	8351.0	12431.0	16628.0	22251.0	25170.5
			8352.5	12462.0	16659.0	22244.5	
					16625.5		
W20	4196.5	6294.5	8351.5	12431.5	16628.5	22251.5	25171.0
			8353.0	12462.5	16659.5	22245.0	
					16626.0		
W21	4197.0	6295.0	8352.0	12432.0	16629.0	22252.0	25161.5
			8353.5	12463.0	16660.0	22245.5	
					16626.5		
W22	4197.5	6295.5	8352.5	12432.5	16629.5	22252.5	25162.0
			8354.0	12463.5	16660.5	22246.0	
					16627.0		
W23	4198.0	6296.0	8353.0	12433.0	16630.0	22253.0	25162.5
			8354.5	12464.0	16661.0	22246.5	
					16627.5		
W24	4198.5	6296.5	8353.5	12433.5	16630.5	22253.5	25163.0
			8355.0	12464.5	16661.5	22247.0	
					16628.0		
W25	4199.0	6297.0	8354.0	12434.0	16631.0	22254.0	25163.5
			8355.5	12465.0	16662.0	22247.5	
					16628.5		
W26	4199.5	6297.5	8354.5	12434.5	16631.5	22254.5	25164.0
			8356.0	12465.5	16662.5	22248.0	
					16629.0		
W27	4200.0	6298.0	8355.0	12435.0	16632.0	22255.0	25164.5
			8356.5	12466.0	16663.0	22248.5	
					16629.5		
W28	4200.5	6298.5	8355.5	12435.5	16632.5	22255.5	25165.0
			8357.0	12466.5	16663.5	22249.0	
					16630.0		
W29	4201.0	6299.0	8356.0	12436.0	16633.0	22256.0	25165.5

SHIP MORSE WORKING FREQUENCIES (KHZ)—Continued

			8357.5	12467.0	16664.0	22249.5	
					16630.5		
W30	4201.5	6299.5	8356.5	12436.5	16633.5	22256.5	25166.0
			8358.0	12467.5	16664.5	22250.0	
					16631.0		
W31	4202.0	6300.0	8357.0	12437.0	16634.0	22257.0	25166.5
			8358.5	12468.0	16665.0	22250.5	
					16631.5		
W32	4202.0	6300.0	8357.5	12437.5	16634.5	22257.5	25167.0
			8359.0	12468.5	16665.5	22251.0	
					16632.0		
W33	4201.5	6299.5	8358.0	12438.0	16635.0	22258.0	25167.5
			8359.5	12469.0	16666.0	22251.5	
					16632.5		
W34	4201.0	6299.0	8358.5	12438.5	16635.5	22258.5	25168.0
			8360.0	12469.5	16666.5	22252.0	
					16633.0		
W35	4200.5	6298.5	8359.0	12439.0	16636.0	22259.0	25168.5
			8360.5	12470.0	16667.0	22252.5	
					16633.5		
W36	4200.0	6298.0	8359.5	12439.5	16636.5	22259.5	25169.0
			8361.0	12470.5	16667.5	22253.0	
					16634.0		
W37	4199.5	6297.5	8360.0	12440.0	16637.0	22260.0	25169.5
			8361.5	12471.0	16668.0	22253.5	
					16634.5		
W38	4199.0	6297.0	8360.5	12440.5	16637.5	22260.5	25170.0
			8362.0	12471.5	16668.5	22254.0	
					16635.0		
W39	4198.5	6296.5	8361.0	12441.0	16638.0	22261.0	25170.5
			8362.5	12472.0	16669.0	22254.5	
					16635.5		
W40	4198.0	6296.0	8361.5	12441.5	16638.5	22261.5	25171.0
			8363.0	12472.5	16669.5	22255.0	
					16636.0		
W41	4197.5	6295.5	8362.0	12442.0	16639.0	22262.0	25161.5
			8363.5	12473.0	16670.0	22255.5	
					16636.5		
W42	4197.0	6295.0	8362.5	12442.5	16639.5	22262.5	25162.0
			8364.0	12473.5	16670.5	22256.0	
					16637.0		
W43	4196.5	6294.5	8363.0	12443.0	16640.0	22263.0	25162.5

			8364.5	12474.0	16671.0	22256.5	
					16637.5		
W44	4196.0	6294.0	8363.5	12443.5	16640.5	22263.5	25163.0
			8365.0	12474.5	16671.5	22257.0	
					16638.0		
W45	4195.5	6293.5	8364.0	12444.0	16641.0	22264.0	25163.5
			8365.5	12475.0	16672.0	22257.5	
					16638.5		
W46	4195.0	6293.0	8364.5	12444.5	16641.5	22264.5	25164.0
			8371.0	12475.5	16672.5	22258.0	
					16639.0		
W47	4194.5	6292.5	8365.0	12445.0	16642.0	22265.0	25164.5
			8371.5	12476.0	16673.0	22258.5	
					16639.5		
W48	4194.0	6292.0	8365.5	12445.5	16642.5	22265.5	25165.0
			8372.0	12476.5	16673.5	22259.0	
					16640.0		
W49	4193.5	6291.5	8371.0	12446.0	16643.0	22266.0	25165.5
			8372.5	12422.0	16674.0	22259.5	
					16640.5		
W50	4193.0	6291.0	8371.5	12446.5	16643.5	22266.5	25166.0
			8373.0	12422.5	16674.5	22260.0	
					16641.0		
W51	4192.5	6290.5	8372.0	12447.0	16644.0	22267.0	25166.5
			8373.5	12423.0	16675.0	22260.5	
					16641.5		
W52	4192.0	6290.0	8372.5	12447.5	16644.5	22267.5	25167.0
			8374.0	12423.5	16675.5	22261.0	
					16642.0		
W53	4191.5	6289.5	8373.0	12448.0	16645.0	22268.0	25167.5
			8374.5	12424.0	16676.0	22261.5	
					16642.5		
W54	4191.0	6289.0	8373.5	12448.5	16645.5	22268.5	25168.0
			8375.0	12424.5	16676.5	22262.0	
					16643.0		
W55	4190.5	6288.5	8374.0	12449.0	16646.0	22269.0	25168.5
			8375.5	12425.0	16677.0	22262.5	
					16643.5		
W56	4190.0	6288.0	8374.5	12449.5	16646.5	22269.5	25169.0
			8376.0	12425.5	16677.5	22263.0	
					16644.0		
W57	4189.5	6287.5	8375.0	12450.0	16647.0	22270.0	25169.5
			8342.0	12426.0	16678.0	22263.5	
					16644.5		

SHIP MORSE WORKING FREQUENCIES (KHZ)—Continued

W58	4189.0	6287.0	8375.5 8342.5	12450.5 12426.5	16647.5 16678.5 16645.0	22270.5 22264.0	25170.0
W59	4188.5	6286.5	8376.0 8343.0	12451.0 12427.0	16648.0 16679.0 16645.5	22271.0 22264.5	25170.5
W60	4188.0	6286.0	8342.0 8343.5	12451.5 12427.5	16648.5 16679.5 16646.0	22271.5 22265.0	25171.0
W61	4187.5	6285.5	8342.5 8344.0	12452.0 12428.0	16649.0 16680.0 16646.5	22272.0 22265.5	25161.5
W62	4187.0	6285.0	8343.0 8344.5	12452.5 12428.5	16649.5 16680.5 16678.0	22272.5 22266.0	25162.0

(ii) If the frequencies listed in paragraph (3)(i) of this section are not adequate for communications, ship stations may use any of the non-paired narrow-band direct-printing frequencies listed in § 80.361(b) of this part for A1A or J2A radiotelegraphy.

(b) *Coast station frequencies*—(1) *Frequencies in the 100–27500 kHz band.* The following table describes the working carrier frequencies in the 100–27500 kHz band which are assignable to coast stations located in the designated geographical areas. The exclusive maritime mobile HF bands listed in the table contained in § 80.363(b) of this part are also available for assignment to public coast stations for A1A or J2A radiotelegraphy following coordination with government users.

Area	Bands [1]								
	100–160 kHz	405–525 kHz	2 MHz	4 MHz	6 MHz	8 MHz	12 MHz	16 MHz	22 MHz
Central Pacific	126.15	426.00	2037.5	4247.0	6348.0	8558.0	12695.5	17016.8	22479.0
	.....	436.00	2045.0	4274.0	6365.5	8618.0	12808.5	17026.0	22515.0
	147.85	460.00	2061.5	4228.0	6477.5	8642.0	12844.5	17088.8	22557.0
	.....	476.0	.....	.....	6488.0	8445.0	13002.0	.....	22581.5
	.....	500.00	.....	.....	.....	.....	13033.5	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
South Pacific	.....	418.00	2049.5	4238.0	6355.0	8590.0	12691.0	17064.8	22467.0
	.....	464.00	2055.5	4283.0	6463.5	8606.0	12912.0	17088.8	22593.5
	.....	482.00	.....	.....	.....	8642.0	12993.0	17220.5	.....
	.....	500.00	.....	.....	.....	.....	13033.5	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
Gulf of Mexico	153.00	410.00	2042.0	4256.0	6369.0	8473.0	12704.5	17117.6	22467.0
	.....	420.00	2048.0	4274.0	6435.5	8550.0	12826.5	17170.4	22668.5
	.....	434.00	2049.5	4310.0	6446.0	8570.0	12840.0	17172.4	22686.5
	.....	438.00	2052.5	4322.0	6495.0	8666.0	13038.0	17230.1	22688.0
	.....	478.00	2055.5	.....	.....	8445.0	13051.5	.....	.....
	.....	484.00	2063.0	.....	.....	8453.0	12660.0	.....	.....
	.....	500.00	.....	.....	.....	.....	.....	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
Great Lakes	.....	482.00	.....	4316.0	6474.0	8534.0	.....	.....	.....
	.....	500.00	.....	.....	.....	.....	.....	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
Hawaii	.....	484.00	2052.5	4295.0	6407.5	8542.0	13029.0	16978.4	22509.0
	.....	500.00	.....	.....	.....	.....	.....	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
Puerto Rico	153.00	486.00	2052.5	4244.0	.....	8457.0	12700.0	.....	.....
	.....	500.00	.....	.....	.....	.....	.....	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
North Atlantic	112.85	418.00	2036.0	4238.0	6351.5	8502.0	12745.5	16933.2	22485.0
	124.05	436.00	2040.5	4268.0	6376.0	8514.0	12925.5	16968.8	22503.0
	130.35	442.00	2046.5	4331.0	6414.5	8586.0	12948.0	16973.6	22521.0
	132.10	460.00	2051.0	4343.0	6418.0	8610.0	12961.5	16997.6	22599.5
	134.55	472.00	2054.0	4346.0	6333.5	8630.0	12997.5	17021.6	22640.0
	137.00	476.00	2060.0	.....	6337.0	8658.0	13020.0	17093.6	22658.0
	.....	482.00	.....	.....	6344.0	8686.0	13024.5	16904.9	.....
	146.80	500.00	.....	.....	.....	.....	13033.5	.....	.....
	147.50	512.00	.....	.....	.....	.....	13060.5	.....	.....
Central Atlantic	.....	428.00	2063.0	4346.0	6484.5	8502.0	12885.0	16916.5	22588.5
	.....	500.00	.....	.....	.....	.....	.....	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
South Atlantic	137.70	434.00	2039.0	4250.0	6389.6	8486.0	12952.5	16918.8	22503.0
	.....	464.00	2043.5	4292.0	6407.5	8525.0	12970.5	17093.6	22575.5
	.....	472.00	2051.0	4295.0	6411.0	8686.0	13011.0	17160.8	.....
	.....	488.00	2057.0	.....	.....	8453.0	12660.0	17170.4	.....
	.....	500.00	.....	.....	.....	.....	.....	17239.7	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
North Pacific	.....	482.00	2058.5	4349.0	6411.0	8582.0	12907.5	17007.2	22539.0
	.....	488.00	2063.0	.....	.....	8658.0	12916.5	.....	.....
	.....	500.00	.....	.....	.....	.....	.....	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....
Alaska	.....	416.00	.....	.....	.....	.....	.....	.....	.....
	.....	438.00	.....	.....	.....	.....	.....	.....	.....
	.....	452.00	.....	.....	.....	.....	.....	.....	.....
	.....	472.00	.....	.....	.....	.....	.....	.....	.....
	.....	512.00	.....	.....	.....	.....	.....	.....	.....

[1] All frequencies in this table are shown in kilohertz.

(2) *Conditions of use.* The following conditions are applicable to these frequencies:

(i) Frequencies in the 100–160 kHz band are assignable to coast stations for high seas communications only;

(ii) Frequencies above 5 MHz may be assigned primarily to stations serving the high seas and secondarily to stations serving inland waters of the United States, including the Great Lakes, under the condition that interference will not be caused to any coast station serving the high seas. Applicants for these frequencies must submit a substantial showing of need based on the following factors:

(A) A schedule of each currently licensed Morse working frequency and the expected use of the proposed frequencies;

(B) For additional frequencies within the same MHz band, a factual showing of the 3 busiest hours of any 4 days within a consecutive 10 day period for each of the 2 months immediately preceding the filing of the application indicating that the applicant has used its currently assigned frequencies within the same MHz band an aggregate average of at least 40% of the 3 busiest hours of each day for exchanging communications; and

(C) Any other facts that support the need for the proposed assignment, *e.g.*, evidence of radio interference by another station located near enough to render a currently licensed frequency substantially unusable.

(iii) The frequency 410 kHz may be used on a secondary basis for the transmission of radiodetermination information and for transmitting by radiotelegraph radiodetermination messages to direction-finding stations; and

(iv) The frequency 512 kHz may be used as a supplementary calling frequency when 500 kHz is used for distress, urgency and safety communications. The use of the 512 kHz as a working frequency is prohibited in areas where 500 kHz is used for distress, urgency and safety communications.

[51 FR 31213, Sept. 2, 1986; 51 FR 34984, Oct. 1, 1986; 56 FR 9887, Mar. 8, 1991; 56 FR 34029, July 25, 1991]

§ 80.359 Frequencies for digital selective calling (DSC).

(a) *General purpose calling.* The following table describes the calling frequencies for use by authorized ship and coast stations for general purpose DSC. There are three series of paried frequencies. One series is for worldwide use; the other two series are for regional use. The ''Series A'' designation includes coast stations along, and ship stations in, the Atlantic Ocean, the Gulf of Mexico, and the Caribbean Sea. The ''Series B'' designation includes stations in any remaining areas. Stations must initiate contact on the appropriate regional frequency depending upon the location of the called station and propagation conditions. Acknowledgement is made on the paired frequency. The worldwide frequencies may be used for international calling, if calls on the appropriate regional frequencies are unsuccessful, or the regional series does not contain the appropriate band (*e.g.*, 2 MHz). During normal working hours, all public coast stations capable of DSC operations must monitor the worldwide and regional frequencies appropriate for its location. The specific frequencies to be monitored will vary with propagation conditions.

GENERAL PURPOSE DSC

[In kHz unless otherwise noted]

Worldwide		Series A		Series B	
Ship	Coast	Ship	Coast	Ship	Coast
458.5	455.5	.....	.....	.....	.....
2189.5	[1] 2177.0	.....	.....	.....	.....
4208.0	4219.5	4208.5	4220.0	4209.5	4220.5
6312.5	6331.0	6313.0	6331.5	6313.5	6332.0
8415.0	8436.5	8415.5	8437.0	8416.0	8437.5
12577.5	12657.0	12578.0	12657.5	12578.5	12658.0
16805.0	16903.0	16805.5	16903.5	16806.0	16904.0
18898.5	19703.5	18899.0	19704.0	18899.5	19704.5
22374.5	22444.0	22375.0	22444.5	22375.5	22445.0
25208.5	26121.0	25209.0	26121.5	25209.5	26122.0