



NAVIGATION CENTER

The Navigation Center of Excellence

U.S. Department of Homeland Security
UNITED STATES COAST GUARD



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Primary Mission Areas:

- Nationwide DGPS
- Long Range Identification and Tracking
- Nationwide AIS (NAIS)
- Local Notice to Mariners
- Light Lists
- Civil GPS Service Interface Committee
- Global Positioning System
- Electronic Navigation & Charting
- LORAN C (archive)

Services & Reporting:

- Receive Free LNM Updates
- Receive Free GPS Status Messages
- Receive NANU Updates
- Join CGSIC (free)
- Report an ATON Discrepancy or Outage
- Report a GPS Problem
- Report an NDGPS Problem
- Report an LRIT Problem
- Report an NAIS Problem
- Contact Us

Maritime Information:

- USCG 'Homeport' Website
- Maritime Telecommunications
- CG Nat'l Distress System
- Global Maritime Distress and Safety System
- Marine Safety Information Broadcasts
- MF & HF Channels
- Nav Pubs and Documents
- Radio Watch Requirements
- Vessel Traffic Services
- VHF Channels & Freqs

INTERNATIONAL VHF MARINE RADIO CHANNELS AND FREQUENCIES

The following table is adapted from the International Telecommunications Union Radio Regulations Appendix 18, including changes adopted by the 2012 World Radio Conference. Transmission on frequencies or channels shown in **blue** are not allowed within U.S. territorial waters, but are allowed on the high seas and in most other countries. Note that a marine radio operating in the international mode on a channel in which the ship station frequency is shown in black and the shore station frequency shown in blue would not be able to communicate with a U.S. shore station. Frequencies and channels shown in **green** were auctioned in the U.S. and are only available from the auction winner. The large number of **blue** channels and frequencies indicates the shortage of VHF maritime spectrum in the U.S. compared to most other maritime countries.

Table of Transmitting Frequencies in the VHF Maritime Mobile							
Channel Designator	Notes	Transmitting Frequencies (MHz)		Intership	Port Operations and Ship Movement		Public correspondence
		Ship Stations	Coast Stations		Single frequency	Two frequency	
60	<i>m</i>	156.025	160.625		x	x	x
01	<i>m</i>	156.050	160.650		x	x	x
61	<i>m</i>	156.075	160.675		x	x	x
02	<i>m</i>	156.100	160.700		x	x	x
62	<i>m</i>	156.125	160.725		x	x	x
03	<i>m</i>	156.150	160.750		x	x	x
63	<i>m</i>	156.175	160.775		x	x	x
04	<i>m</i>	156.200	160.800		x	x	x
64	<i>m</i>	156.225	160.825		x	x	x
05	<i>m</i>	156.250	160.850		x	x	x
65	<i>m</i>	156.275	160.875		x	x	x
06	<i>f</i>	156.300		x			
2006	<i>r</i>	160.900	160.900				
66	<i>m</i>	156.325	160.925		x	x	x
07	<i>m</i>	156.350	160.950		x	x	x
67	<i>h</i>	156.375	156.375	x	x		
08		156.400		x			
68		156.425	156.425		x		
09	<i>i</i>	156.450	156.450	x	x		
69		156.475	156.475	x	x		
10	<i>h,q</i>	156.500	156.500	x	x		
70	<i>f,j</i>	156.525	156.525	Digital selective calling for distress, safety and calling			
11	<i>q</i>	156.550	156.550		x		
71		156.575	156.575		x		
12		156.600	156.600		x		
72	<i>i</i>	156.625		x			
13	<i>k</i>	156.650	156.650	x	x		
73	<i>h,l</i>	156.675	156.675	x	x		
14		156.700	156.700		x		
74		156.725	156.725		x		
15	<i>g</i>	156.750	156.750	x	x		
75	<i>n,s</i>	156.775	156.775		x		
16	<i>f</i>	156.800	156.800	DISTRESS, SAFETY AND CALLING			

INTERNATIONAL VHF MARINE RADIO CHANNELS AND FREQUENCIES

/6	n,s	156.825	156.825		x		
17	g	156.850	156.850	x	x		
77		156.875		x			
18	m	156.900	161.500		x	x	x
78	t,u,v	156.925	161.525		x	x	x
1078		156.925	156.925		x		
2078		161.525	161.525		x		
19	t,u,v	156.950	161.550		x	x	x
1019		156.950	156.950		x		
2019		161.550	161.550		x		
79	t,u,v	156.975	161.575		x	x	x
1079		156.975	156.975		x		
2079		161.575	161.575		x		
20	t,u,v	157.000	161.600		x	x	x
1020		157.000	157.000		x		
2020		161.600	161.600		x		
80	w,y	157.025	161.625		x	x	x
21	w,y	157.050	161.650		x	x	x
81	w,y	157.075	161.675		x	x	x
22	w,y	157.100	161.700		x	x	x
82	w,x,y	157.125	161.725		x	x	x
23	w,x,y	157.150	161.750		x	x	x
83	w,x,y	157.175	161.775		x	x	x
24	w,ww,x,y	157.200	161.800		x	x	x
84	w,ww,x,y	157.225	161.825		x	x	x
25	w,ww,x,y	157.250	161.850		x	x	x
85	w,ww,x,y	157.275	161.875		x	x	x
26	w,ww,x,y	157.300	161.900		x	x	x
86	w,ww,x,y	157.325	161.925		x	x	x
27	z	157.350	161.950			x	x
87	z	157.375	157.375		x		
28	z	157.400	162.000			x	x
88	z	157.425	157.425		x		
AIS 1	f, l, p	161.975	161.975				
AIS 2	f, l, p	162.025	162.025				

NOTES REFERRED TO FROM THE TABLE ABOVE

General Notes

a. Administrations may designate frequencies in the intership, port operations and ship movement services for use by light aircraft and helicopters to communicate with ships or participating coast station in predominantly maritime support operations under the conditions specified in Nos. **51.69, 51.73, 51.74, 51.75, 51.76, 51.77** and **51.78**. However, the use of the channels which are shared with public correspondence shall be subject to prior agreement between interested and affected administrations.

b. The channels of the present Appendix, with the exception of channels 06, 13, 15, 16, 17, 70, 75 and 76, may also be used for highspeed data and facsimile transmissions, subject to special arrangement between interested and affected administrations.

c. The channels of the present Appendix, with exception of channels 06, 13, 15, 16, 17, 70, 75 and 76, may be used for direct-printing telegraphy and data transmission, subject to special arrangement between interested and affected administrations

d. The frequencies in this table may also be used for radiocommunications on inland waterways in accordance with the conditions specified in No. **5.226**.

e. Administrations may apply **12.5 kHz channel interleaving** on a non-interference basis to 25 kHz channels, in accordance with the most recent version of Recommendation ITU-R M.1084, provided:

- It shall not affect the 25 kHz channels of the present Appendix maritime mobile distress and safety frequencies, especially the channels 06, 13, 15, 16, 17, 70, AIS 1 and AIS 2, nor the technical characteristics mentioned in Recommendation ITU-R M.489-2 for these channels;
- Implementation of 12.5 kHz channel interleaving and consequential national requirements shall be subject to coordination with affected administrations.

Specific notes

f. The frequencies 156.300 MHz (channel 06), 156.525 MHz (channel 70), 156.800 MHz (channel 16), 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2) may also be used by aircraft stations for the purpose of search and rescue operations and other safety-related operations.

g. Channels 15 and 17 may also be used for on-board communications provided the effective radiated power does not exceed 1 W, and subject to the national regulations of the administration concerned when these channels are used in its territorial waters.

h. Within the European Maritime Area and in Canada these frequencies (channels 10, 67, 73) may also be used, if so required, by the individual administrations concerned, for communication between ship stations, aircraft stations and participating land stations engaged in coordinated search and rescue and anti-pollution operations in local areas, under the conditions specified in Nos. **51.69, 51.73, 51.74, 51.75, 51.76, 51.77 and 51.78**.

i. The preferred first three frequencies for the purpose indicated in note a) are 156.450 MHz (channel 09), 156.625 MHz (channel 72) and 156.675 MHz (channel 73).

j. Channel (70) is to be used exclusively for digital selective calling for distress, safety and calling.

k. Channel 13 is designated for use on a world-wide basis as a navigation safety communication channel, primarily for intership navigation safety communications. It may also be used for the ship movement and port operations service subject to the national regulations of the administrations concerned.

l. The channels (AIS 1 and AIS 2) are used for an [automatic identification system \(AIS\)](#) capable of providing worldwide operation, unless other frequencies are designated on a regional basis for this purpose. Such use should be in accordance with the most recent version of Recommendation ITU-R M.1371.

m. These channels may be operated as a single frequency channels, subject to coordination with affected administrations.

n. With the exception of AIS, the use of these channels (75 and 76) should be restricted to navigation-related communications only and all precautions should be taken to avoid harmful interference to channel 16 by limiting the output power to 1 W.

o. (n/a)

p. Additionally, AIS 1 and AIS 2 may be used by the mobile-satellite service (Earth-to-space) for the reception of AIS transmissions from ships.

q. When using these channels (10 and 11), all precautions should be taken to avoid harmful interference to channel 70.

r. In the maritime mobile service, this frequency is reserved for experimental use for future applications or systems (e.g. new AIS applications, man over board systems, etc.). If authorized by administrations for experimental use, the operation shall not cause harmful interference to, or claim protection from, stations operating in the fixed and mobile services.

s. Channels 75 and 76 are also allocated to the mobile-satellite service (Earth-to-space) for the reception of long-range AIS broadcast messages from ships (Message 27; see the most recent version of Recommendation ITU-R M.1371).

t. Until 1 January 2017, in Regions 1 and 3, the existing duplex channels 78, 19, 79 and 20 can continue to be assigned. These channels may be operated as single-frequency channels, subject to coordination with affected administrations. From that date, these channels shall only be assigned as single-frequency channels. However, existing duplex channel assignments may be preserved for coast stations and retained for vessels, subject to coordination with affected administrations.

u. In Region 2 (i.e. N. & S. America), these channels may be operated as single-frequency channels, subject to coordination with affected administrations.

v. After 1 January 2017, in the Netherlands, these channels may continue to be operated as duplex frequency channels, subject to coordination with affected administrations.

w. In Regions 1 and 3 (i.e. except N. & S. America):

Until 1 January 2017, the frequency bands 157.025-157.325 MHz and 161.625-161.925 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23, 83, 24, 84, 25, 85, 26, 86) may be used for new technologies, subject to coordination with affected administrations. Stations using these channels or frequency bands for new technologies shall not cause harmful interference to, or claim protection from, other stations operating in accordance with Article 5.

From 1 January 2017, the frequency bands 157.025-157.325 MHz and 161.625-161.925 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23, 83, 24, 84, 25, 85, 26, 86) are identified for the utilization of the digital systems described in the most recent version of Recommendation ITU-R M.1842. These frequency bands could also be used for analogue modulation described in the most recent version of Recommendation ITU-R M.1084 by an administration that wishes to do so, subject to not claiming protection from other stations in the maritime mobile service using digitally modulated emissions and subject to coordination with affected administrations.

ww. In Region 2 (i.e. N. and S. America), the frequency bands 157.200-157.325 and 161.800-161.925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions in accordance with the most recent version of Recommendation ITU-R M.1842.

x. From 1 January 2017, in Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Democratic Republic of the Congo, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe, the frequency bands 157.125-157.325 and 161.725-161.925 MHz (corresponding to channels: 82, 23, 83, 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions.

From 1 January 2017, in China, the frequency bands 157.150-157.325 and 161.750-161.925 MHz (corresponding to channels: 23, 83, 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions.

y. These channels may be operated as single or duplex frequency channels, subject to coordination with affected administrations.

z. These channels may be used for possible testing of future AIS applications without causing harmful interference to, or claiming protection from, existing applications and stations operating in the fixed and mobile services.

[See the U.S. VHF Marine Radio Frequencies and Channels](#)

(Source: Final Acts WRC-12 World Radio Conference, Geneva 2012)