



NAVICO AUCKLAND LIMITED

Add: 44 Arrenway Drive, Rosedale, Auckland, 0632 New Zealand

Tel: +64-9-925-4500

Fax: +64-9-925-4501

Email: John.scott@navico.com

Extended Frequency Justification Letter

Date: 2017-2-14

Federal Communications Commission

Authorization & Evaluation Division

7435 Oakland Mills Road

Colombia, Maryland 21046

Dear Sir/Madam,

The MARINE FIXED MOUNT DSC VHF RADIO with FCC ID: RAYVHFERS20 was designed to operate in the frequency bands 156.025-163.275MHz.

To aid equipment authorization in other countries which accept the United States FCC Grant for certification, Garmin International Inc is requesting that the FCC lists the frequencies 156.025-157.425MHz, under FCC Rules Parts 80 on the FCC Grant.

NAVICO AUCKLAND LIMITED attests that the radio will not be marketed to USA users with the frequency band which is not allowed by the rule part 80.

Per the FCC's KDB634817 guidance, as an alternative to listing the exact frequencies, we acknowledge that it's a violation of the FCC Rules if this device operates on unauthorized frequencies. There are only below frequencies can be used:

U.S. Marine VHF Channels and Frequencies

Channel Number	Ship Transmit MHz	Ship Receive MHz	Use
01A	156.050	156.050	Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area.
05A	156.250	156.250	Port Operations or VTS in the Houston, New Orleans and Seattle areas.
06	156.300	156.300	Intership Safety
07A	156.350	156.350	Commercial
08	156.400	156.400	Commercial (Intership only)
09	156.450	156.450	Boater Calling. Commercial and Non-Commercial.
10	156.500	156.500	Commercial
11	156.550	156.550	Commercial. VTS in selected areas.
12	156.600	156.600	Port Operations. VTS in selected areas.
13	156.650	156.650	Intership Navigation Safety (Bridge-to-bridge). Ships >20m length maintain a listening watch on this channel in US waters.
14	156.700	156.700	Port Operations. VTS in selected areas.
15	--	156.750	Environmental (Receive only). Used by Class C EPIRBs.
16	156.800	156.800	International Distress, Safety and Calling. Ships required to carry radio, USCG, and most coast stations maintain a listening watch on this channel.
17	156.850	156.850	State & local govt maritime control
18A	156.900	156.900	Commercial
19A	156.950	156.950	Commercial

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20	157.000	161.600	Port Operations (duplex)
20A	157.000	157.000	Port Operations
21A	157.050	157.050	U.S. Coast Guard only
22A	157.100	157.100	Coast Guard Liaison and Maritime Safety Information Broadcasts. Broadcasts announced on channel 16.
23A	157.150	157.150	U.S. Coast Guard only
24	157.200	161.800	Public Correspondence (Marine Operator)
25	157.250	161.850	Public Correspondence (Marine Operator)
26	157.300	161.900	Public Correspondence (Marine Operator)
27	157.350	161.950	Public Correspondence (Marine Operator)
28	157.400	162.000	Public Correspondence (Marine Operator)
63A	156.175	156.175	Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area.
65A	156.275	156.275	Port Operations
66A	156.325	156.325	Port Operations
67	156.375	156.375	Commercial. Used for Bridge-to-bridge communications in lower Mississippi River. Intership only.
68	156.425	156.425	Non-Commercial
69	156.475	156.475	Non-Commercial
70	156.525	156.525	Digital Selective Calling (voice communications not allowed)
71	156.575	156.575	Non-Commercial
72	156.625	156.625	Non-Commercial (Intership only)
73	156.675	156.675	Port Operations
74	156.725	156.725	Port Operations
77	156.875	156.875	Port Operations (Intership only)
78A	156.925	156.925	Non-Commercial
79A	156.975	156.975	Commercial. Non-Commercial in Great Lakes only
80A	157.025	157.025	Commercial. Non-Commercial in Great Lakes only
81A	157.075	157.075	U.S. Government only - Environmental protection operations.
82A	157.125	157.125	U.S. Government only
83A	157.175	157.175	U.S. Coast Guard only
84	157.225	161.825	Public Correspondence (Marine Operator)
85	157.275	161.875	Public Correspondence (Marine Operator)
86	157.325	161.925	Public Correspondence (Marine Operator)
87	157.375	157.375	Public Correspondence (Marine Operator)
88A	157.425	157.425	Commercial, Intership only.

- Recreational boaters normally use channels listed as Non-Commercial: 68, 69, 71, 72, 78A.
- Channel 70 is used exclusively for Digital Selective Calling (DSC) and is not available for regular voice communications.
- Channels 75 and 76 are reserved as guard bands for Channel 16 and are not available for regular voice communications.

Notes:

1. The letter "A" following a channel number indicates simplex use of the ship station transmit side of an international semi-duplex channel. Operations are different from that of international operations on that channel.



2. Channel 13 should be used to contact a ship when there is danger of collision. All ships of length 20meters or greater are required to guard VHF channel 13, in addition to VHF channel 16, when operating within U.S. territorial waters.
3. Channel 15 is Receive Only
4. Channel 16 is used for calling other stations or for distress alerting.
5. Output power is fixed at 1 watt only.
6. Output power is initially set to 1 watt. User can temporarily override this restriction to transmit at high power.

Also, equipment programming is the responsibility of Authorized Service Personnel, the radio complies with 47 CFR Part 80, in that the operator cannot directly program the transmit frequencies using the normally accessible external controls.

Sincerely,

John Scott
COO & EVP Product Management

A handwritten signature in black ink, appearing to read "John Scott", written over the printed name.