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01/29/2015

FEDERAL COMMUNICATIONS COMMISSIONS

Authorization and Evaluation Division

7435 Oakland Mills Road

Columbia, MD 21046

Subject: Extended Frequencies Justification

Dear Sir/Madam,

The Radio with FCC ID: PJ5-RAY50 was designed to operate in the frequency bands 155.5~163.275 MHz

To aid equipment authorization in other countries which accept the United States FCC Grant for Certification, Raymarine UK Limited is requesting that the FCC lists the frequencies 156.025~157.425 MHz, under FCC Rule Part 80 on the FCC Grant.

Raymarine UK 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

| CH.No | TX Freq | RX Freq | Single | Freq Use |
|-------|---------|---------|--------|--|
| 01A | 156.050 | 156.050 | x | Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area. |
| 03A | 156.150 | 156.150 | x | U.S. Government only |
| 05A | 156.250 | 156.250 | x | Port Operations or VTS in the Houston, New Orleans and Seattle areas. |
| 06 | 156.300 | 156.300 | x | Intership Safety |
| 07A | 156.350 | 156.350 | x | Commercial |
| 08 | 156.400 | 156.400 | x | Commercial (Intership only) |
| 09 | 156.450 | 156.450 | x | Boater Calling. Commercial and Non-Commercial. |
| 10 | 156.500 | 156.500 | x | Commercial |
| 11 | 156.550 | 156.550 | x | Commercial. VTS in selected areas. |
| 12 | 156.600 | 156.600 | x | Port Operations. VTS in selected areas. |
| 13 | 156.650 | 156.650 | x | Intership Navigation Safety (Bridge-to-bridge). Ships >20meters in length maintain a listening watch on this channel in US waters. 2, 6 |
| 14 | 156.700 | 156.700 | x | Port Operations. VTS in selected areas. |
| 15 | — | 156.750 | x | Environmental (Receive only). Used by Class 'C' EPIRBs. 3 |
| 16 | 156.800 | 156.800 | x | International Distress, Safety and Calling. Ships required to carry radio, USCG, and most coast stations maintain a listening watch on this channel. 4 |
| 17 | 156.850 | 156.850 | x | State Control 5 |
| 18A | 156.900 | 156.900 | x | Commercial |
| 19A | 156.950 | 156.950 | x | Commercial |
| 20 | 157.000 | 161.600 | x | Port Operations (duplex) |
| 20A | 157.000 | 157.000 | x | Port Operations |
| 21A | 157.050 | 157.050 | x | U.S. Coast Guard only |
| 22A | 157.100 | 157.100 | x | Coast Guard Liaison and Maritime Safety Information Broadcasts. Broadcasts announced on channel 16. |
| 23A | 157.150 | 157.150 | x | U.S. Coast Guard only |
| 24 | 157.200 | 161.800 | x | Public Correspondence (Marine Operator) |



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|-----|---------|---------|---|--|
| 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) |
| 61A | 156.075 | 156.075 | x | U.S. Government only |
| 63A | 156.175 | 156.175 | x | Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area. |
| 64A | 156.225 | 156.225 | x | U.S. Coast Guard only |
| 65A | 156.275 | 156.275 | x | Port Operations |
| 66A | 156.325 | 156.325 | x | Port Operations |
| 67 | 156.375 | 156.375 | x | Commercial. Used for Bridge-to-bridge communications in lower Mississippi River. Intership only. 6 |
| 68 | 156.425 | 156.425 | x | Non-Commercial |
| 69 | 156.475 | 156.475 | x | Non-Commercial |
| 71 | 156.575 | 156.575 | x | Non-Commercial |
| 72 | 156.625 | 156.625 | x | Non-Commercial (Intership only) |
| 73 | 156.675 | 156.675 | x | Port Operations |
| 74 | 156.725 | 156.725 | x | Port Operations |
| 77 | 156.875 | 156.875 | x | Port Operations (Intership only) 5 |
| 78A | 156.925 | 156.925 | x | Non-Commercial |
| 79A | 156.975 | 156.975 | x | Commercial. Non-Commercial in Great Lakes only. |
| 80A | 157.025 | 157.025 | x | Commercial. Non-Commercial in Great Lakes only |
| 81A | 157.075 | 157.075 | x | U.S. Government only – Environmental protection operations. |
| 82A | 157.125 | 157.125 | x | U.S. Government only |
| 83A | 157.175 | 157.175 | x | 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 | 161.975 | | Public Correspondence Marine Operator) |
| 88 | 157.425 | 162.025 | | Public Correspondence only near Canadian border |
| 88A | 157.425 | 157.425 | x | 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 Yours,

Signature:
Andrew Little
Compliance Manager