Programming Marine Radio and AIS Equipment

Statistics show that many mariners in distress do not properly identify themselves nor provide a precise location when radioing for help which delays rescue services in arriving at the scene quickly and providing the assistance needed. Many marine communication devices, including marine radios equipped with Digital Selective Calling (DSC) and Automatic Identification Systems (AIS) equipment rely upon a 9-digit Maritime Mobile Service Identity (MMSI) number to identify itself and more importantly the user of the device.

The U.S. Coast Guard and the National GMDSS Task Force\(^1\) is concerned that many users of these devices are not obtaining, registering and/or properly entering their assigned MMSI into these devices. Lack of an MMSI will make some of these devices inoperable, such as AIS, or incapable of operating advanced features\(^2\) or distress alerting capabilities of the device. Leaving the MMSI unprogrammed, entering a false identity or not updating a previously-programmed device with your own identity may delay a rescue and under certain situations is unlawful.

MMSI use and registration greatly assists the U.S. Coast Guard in responding to an alert since it contains a description of the vessel and telephone numbers used to contact the vessel’s owner or point of contact in an emergency. MMSI numbers are issued by the FCC if the vessel requires a Station License, otherwise they can be obtained from Boat U.S. (www.boatus.com/mmsi), Sea Tow (www.seatow.com/boating_safety/mmsi), and Shine Micro (www.shinemicro.com) often at no charge. Those having MMSIs should keep registration information current, including phone numbers, address, name and type of boat.

Most new marine radios have a special Distress Alerting Capability that will, upon the touch of a button, transmit a distress message which can include its identity (MMSI) and location—only if the radio has been programmed with a MMSI and is connected to an electronic positioning system (e.g. GPS, LORAN). The Coast Guard recommends DSC-equipped VHF radios for all mariners because of these capabilities.

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\(^{1}\) The Global Maritime Distress and Safety System (GMDSS) Task Force was created by the Coast Guard to assist the government in implementing this new global radio safety system. The GMDSS Task Force is sponsored by the Radio Technical Commission for Maritime Services (RTCM). This safety alert is directed primarily to organizations and media which cater to Recreational Vessels and small Commercial Vessels.

\(^{2}\) In addition to the distress alerting capability, DSC radios have the ability to make routine calls amongst each other, usually by entering the other radio’s MMSI and touching the transmit button. Once the two radios have connected, they automatically switch to a communication channel so that a conversation can take place. This is all done without having to hail by a voice call and/or use channel 16.
The Task Force is also on record recommending that all vessels going as much as one mile offshore should carry a VHF radio (preferably DSC) and if exceeding VHF range (20-30 miles) should carry a 406 MHz Emergency Position Indicating Radio Beacon (EPIRB) or a 406 MHz Personal Locator Beacon (PLB) which can be detected by search and rescue satellites almost anywhere in the world.

**Coast Guard’s Rescue 21 Project is Upgrading the Coastal Network for DSC Reception.** The Coast Guard has implemented an extensive project to fill gaps in its VHF coastal radio coverage and to upgrade the system for DSC operation. Rescue 21 is currently operational in portions of the Pacific Northwest, Gulf of Mexico, Florida, and the East coast. Vessels with DSC capability should not delay obtaining, registering, and/or properly entering their assigned MMSI into their radios while Rescue 21 coverage is increased. There is already an extensive watch on the DSC calling channel by other vessels who can relay alerts to the Coast Guard.

Visit these websites (or email) for additional information:

- AIS, DSC, GMDSS at [www.navcen.uscg.gov/marcomms](http://www.navcen.uscg.gov/marcomms) ([CGComms@uscg.mil](mailto:CGComms@uscg.mil))
- Global Maritime Distress and Safety System Task Force at ([gmdss@comcast.net](mailto:gmdss@comcast.net))
- RTCM at [www.rtcm.org](http://www.rtcm.org) ([info@rtcm.org](mailto:info@rtcm.org))

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