



# CLASS D DSC OPERATION

## ■ WHAT IS DSC

DSC stands for “Digital Selective Calling” and is a semi-automated method of establishing a radio call; it has been designated by the International Maritime Organization (IMO) as an international standard for maritime MF, HF, and VHF radio distress calls. It is part of the Global Maritime Distress and Safety System (GMDSS). DSC may eventually replace aural watches on distress frequencies and will be used to announce routine and urgent calls, and distress alerts. DSC callouts may precede maritime safety information broadcasts.

## ■ HOW DOES DSC WORK

DSC uses a digital signal to send a specific set of information. To have it work, you need the following:

- The vessel must be equipped with DSC capable radio. It is best to have a Class

- DSC radio as the new USCG regulations require.
- You must obtain a MMSI # (Maritime Mobile Service Identity #) for your DSC radio from Boatus.com. This is how others can identify it is you making the DSC call.
- You must connect the DSC radio to a Global Positioning System (GPS) in order for your position to be sent with the DSC distress call. Interconnect your radio to a GPS receiver using a two-wire NMEA 0183 interface that is on all DSC-equipped marine radios and on most GPS receivers. Refer to your GPS manual for instructions and the USCG web site for updates: [www.navcen.uscg.gov/?pageName=mtDsc](http://www.navcen.uscg.gov/?pageName=mtDsc).
- The system should be tested. To test the system, do **NOT** press the distress button! You will need to determine the MMSI number of a friend or local shore station or use the USCG test MMSI # when making a test call. To make a test call enter the MMSI #. Use the DSC calling Channel 70. Select a working channel (NOT Channel 16), use a routine priority call (see manual) and then make a call. The USCG test MMSI # is: **003669999**. **Select “TEST” on your radio and enter 003669999 MMSI, make the call. You will receive an**

## **automatic acknowledgement from a USCG Rescue 21 shore station.**

The information that can be passed by a DSC call on VHF Channel 70 includes the following:

- The caller’s unique MMSI number
- The MMSI number of the unit being called
- The caller’s location and time of location in a distress by using the distress button when appropriate
- The requested working frequency and mode
- The priority of call (Distress, Urgent, Safety, Routine)
- DSC calls can indicate the type of emergency if selected

## ■ DSC CALLS ARE SELECTIVE

**There are four types of calls:**

1. DSC calls can be addressed to a certain user, often referred to as individual calls
2. DSC calls can be addressed to a set of users, often referred to as group calls
3. DSC calls can be addressed to a specific geographic area
4. DSC calls can be addressed to all ships and shore stations, often referred to as Distress Alerts

Once a DSC call is received, the receiving station will use DSC protocol to acknowledge the call. At this point, the parties will move to a working frequency or channel.

Do not acknowledge distress calls. Doing so will turn off the distress alert information from the other vessel. Allow a shore station to respond. If the shore station does not respond within FIVE minutes, use the “relay” function of the radio to forward the distress call to the USCG MMSI 003669999.

## ■ THE ADVANTAGES OF DSC

DSC gives priority to Distress Alerts and can send your position **ONLY IF YOUR RADIO IS CONNECTED TO YOUR GPS. CONNECTING YOUR RADIO AND GPS CAN SAVE YOUR LIFE!**

In non-emergency situations, boaters with DSC radios can hail one another directly by punching in the unique, nine-digit MMSI number of the vessel they wish to hail and make the call on DSC Channel 70.

DSC minimizes the time necessary to establish communications, and because the initial call is made on Channel 70, this clears a lot of the

‘voice chatter’ that would normally be heard on VHF-FM voice hailing Channel 16.

Once the vessel has been registered for an MMSI number, the information you provided will help in the event that you’re sending a distress alert.

## ■ THE COAST GUARD AND DSC

The Coast Guard will use DSC to listen for distress calls, initiate communications, and announce urgent maritime information.

## ■ HOW TO GET A MMSI NUMBER

All vessels operating on the high seas require a MMSI number to participate in the Global Maritime Distress and Safety System. There are four types of MMSI numbers, each intended for a certain purpose. The types are assigned to one of the following:

- An individual vessel (ship station identity)
- Groups of vessels (group ship station identity)
- A shore-side facility (coast station identity)
- A group of shore-side facilities (group coast station identities)

The FCC has jurisdiction over US flagged vessels. The FCC has a radio station license requirement and is the issuing authority for MMSIs for all vessels subject to international law including

commercial ships and leisure craft visiting countries outside of the US (includes Canada, the Bahamas, and Mexico). You cannot go into another country without FCC documentation.

If you’re staying within US waters, you can get an MMSI from:

- Boat US: <http://www.boatus.com/mmsi/>
- U.S. Power Squadron:  
<http://www.usps.org/php/mmsi/home.php>
- *NOTE that the MMSI number is assigned to the vessel, not the radio. The contact information must be up to date and accurate.*

## ■ ICOM’S CLASS D DSC RADIOS:

- *Learn more about the wonderful safety advantages of an Icom Class D VHF DSC radio by looking at the following: [www.boatus.com/foundation/dsc/player.html](http://www.boatus.com/foundation/dsc/player.html).*
- **Check out their complete line of marine radios at: [www.icomamerica.com/en/marine/](http://www.icomamerica.com/en/marine/)**



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