

DSC AND RESCUE 21

WHAT IS IT AND HOW IT WORKS



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DIGITAL SELECTIVE CALLING (DSC) IS A SYSTEM THAT WAS PUT INTO PLACE BY THE **INTERNATIONAL MARITIME ORGANIZATION (IMO)**. The system has two functions. One being a distress calling system and the other a digital calling system to other vessels. All ships at sea that are part of the **GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (ALL PASSENGER SHIPS,, CARGO SHIPS, SHIPS OF 300 GROSS TONS OR MORE ON INTERNATIONAL VOYAGE (SOLAS))** has to have a DSC radio on the bridge. This is international maritime law, This system allows mariners to instantly send an automatically formatted distress alert to the Coast Guard or other rescue authority anywhere in the world.

Digital selective calling also allows mariners to initiate or receive **Distress, Urgency, Safety** and **Routine** radiotelephone calls to or from DSC equipped vessel or **shore stations**, without requiring either party to be near a radio. DSC acts like the telephone in your home except it is vhf radio. You can call another vessel on **PRIVATE CALL**, or receive a private call from another vessel. When the radio receives a call it will sound a alarm, alerting you of a call. You can also send a **ALL SHIPS CALL or GROUP CALL**. Today all vhf radios has to have DSC in them, every vessel on the water will have this function and they will have to be programmed and wired correctly for the system to work. In the near future this will become maritime law.

HOW DOES THIS WORK WITH RESCUE 21. Rescue 21 is a system installed by the **USCG (US COAST GUARD)**, this system (to make it simple to understand) will receive your distress call.

When you push the red emergency button on the VHF radio, the radio will transmit a few sentences of information thru digital packets on channel 70. This information will be

- **Radio id (MMSI NUMBER)**
- **LAT LON FOR POSTION FROM EITHER THE GPS ANTENNA OR THE PLOTTER DATA INPUT**
- **NATURE OF DISTRESS**
- **WHAT WORKING CHANNEL THE RADIO WILL GO TO**

MMSI NUMBER (MARINE MOBILE SERVICE IDENITITY) this is a 9 digit number and the sequence of the number indicates what it is, vessel, shore station or rescue agency. Where the vessel is from, the Americas and Caribbean, Europe, Asia, Oceana, Africa, South America and the rest of the numbers are identifiers. **THIS NUMBER HAS TO BE PROGRAMED INTO THE RADIO FOR IT FUNCTION.** The other item needed is the input (NMEA 0183) data from either the GPS antenna or the plotter. This is done thru the data out wires from the gps antenna or the plotter wired to the data in wires on the radio. **THIS MUST BE WIRED AND WORKING FOR THE SYSTEM TO WORK CORRECTLY.** The rescue 21 system will pick up the alert call and process it thru a computer and alert the USCG dispatcher at the NEW HAVEN USCG COMM CENTER on long island sound. The dispatcher will have a verbal conversation with you and then let you go about what you have to do. The next sequence will be a transmit ion from RESCUE 21 for all vessels in the area to report. With that info they will dispatch the closes vessel to you, they will dispatch there rescue surface craft and air craft to your position. They know where you are because they are requesting your radio to report your position. The rescue craft and air craft can do the same and also if the vessel dispatched to you knows how to request your position they can do the same and plot the cross check error. All of this saves time and life at sea.

You can also use the radio to make a private call to get your buddies out there someplace and request there position or just to talk to them. You select private call under the DSC list and program in there MMSI number and make the call. There radio will alert them of the call, you will had selected the channel you want there radio to go to and it will move there radio to that channel. Now you can talk with them and no one knows you even called them.

You can get the MMSI number from BOAT US, TOWBOAT AND OTHERS, it is free if you do not require a ships license.

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