

## Bob Cusack explains how a radio can keep you safe.

By Bob Cusack, USCG Auxiliary, July 24, 2010

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In May of 2009, the Coast Guard activated its new Rescue 21 system in the New England area as part of its rolling activation plan. The system allows mariners with the proper VHF radio -- that is linked to a GPS -- to push one button and broadcast a distress signal that will be received by the Coast Guard and vessels in the area with the same equipment.

Your chances of assistance in an emergency are greatly enhanced now that the system has been activated. Under the "old" system, mariners would broadcast a distress call on channel 16 of their VHF radio if their lives or property were in imminent danger.

By this I mean, the boat is taking on water, on fire, there is a medical emergency, or someone has fallen over board and cannot be found. These are several examples of imminent danger. Running out of fuel is not one of them unless you are about to go on the rocks.

One of the major problems with the "old" system is that you call on an open channel and may be drowned out by someone else's broadcast. In a later article, I will discuss proper radio procedures. So, what do you need?

Well first you need VHF with Digital Select Calling (DSC) capabilities. Make sure when you are purchasing your new DSC radio that it is a Class D. I will explain more on why later in the article. You will also need a GPS that is compatible with your new DSC radio. The two pieces of equipment must be able to be physically linked, and the GPS must be able to feed information to the radio.

If you are as technology challenged as I am, please spend some in your local chandlery talking with a knowledgeable employee, about the equipment you may need. Also, if you are like me, you may need help in connecting the radio and GPS.

If you have any doubts as to your capability, check with an expert. Your safety is worth the expense and time.

Now that we have the equipment and it is set up, what else do we need to do? Just like an EPIRB, I assume everyone knows what it is; you must register your vessel with the FCC.

Basically, you register your radio and vessel as one unit. Because you give specific information about your vessel, if you sell your boat and buy a new one, you must change the information about your boat with the FCC.

To register your vessel, please visit either the Web sites listed at the end of this article. Both have been approved by the FCC to implement registration. You will be assigned a unique Maritime Mobile Service Identity (MMSI) number, which must be programmed into your radio. Be careful as some radios only allow a couple of mistakes before they must be returned to the store for reprogramming.

It is not usually a big deal, but is a nuisance to have to take it back. I mentioned above that you should purchase a Class D radio. What you are looking for is a DSC VHF Class D, which meets the international IEC 62238 standards. Please make sure this is what you purchase. The reason is this radio will constantly monitor Channel 70, while leaving you free to monitor and use

another channel. Channel 70 is reserved specifically for sending a mayday signal from a DSC radio, and is monitored by all commercial vessels over a certain length.

A DSC radio that is not Class D, only monitors one channel at a time. So, while you may be listening for a friend to hail you on channel 16, your radio is listening for a signal on channel 70 indicating there is an emergency. If one is broadcast, your radio will switch to channel 70 so you can determine whether or not the person(s) in distress is in your vicinity.

The broadcast will give the latitude and longitude of the vessel in distress. Even if you do not yet have the DSC radio, the Rescue 21 System has enhanced triangulation towers giving the Coast Guard a better chance of locating your position when you use channel 16 for a mayday.

Additional information on the [Rescue 21 System](#)

Over the past few years the Coast Guard has made it possible for mariners & boaters to activate fog horns using their VHF radios. It is very simple, switch to channel 83A and key the mike 5 times in a row. The fog horn if within the range of your VHF will begin sounding which should last for 60 minutes.

A reminder that Channel 16 is for hailing and distress calls only. No chatter. Tell your contact to switch to a working channel like 69 if a pleasure boater.

If you hear a May Day cease all communications until the May Day is over. If you hear one and there is no reply, you should make a note of the call and commence with a May Day Relay.