## **Anchors Aweigh!** *By Keith Wohltman, USCG Auxiliary Flotilla 95*

MARCO ISLAND, FL – Did you know that an anchor is NOT a required piece of safety equipment for boats in the state of Florida? They are "recommended" safety equipment, along with bilge pumps and an oar or paddle. Personally, I would never want to be on a boat without one. I actually have two on my boat. Apart from their use as important safety devices, anchors play an important role in most aspects of boating in and around Marco Island.

There are many different anchor designs, and no one anchor type is "perfect" for all uses. However, a non-perfect anchor sure beats not having one. I suggest you visit your local marine supply store or marina and discuss your options. The anchor itself is one part of the system designed to secure your boat when you are away from a dock. Let's take a look at the other equipment associated with the anchor.

Of course, you need some method of connecting the anchor to your boat and that is referred to as the "rode." The type of rode you select for your boat depends on the size and type of boat and where you anchor. More specifically, what type of bottom material is under your boat; sand, hard bottom, rocks, coral reef, etc. In general, your rode will be either nylon three-strand twist, chain, or a combination of the two. The nylon three-strand twist is by far the most common. It is light weight and flexible but does not provide good abrasion resistance from rocks or coral. Chain obviously provides that feature, but it is heavy and harder on your hands. Chain also adds weight to the anchor and allows it to lie flat on the bottom, increasing its ability to dig in. I am sure you've already guessed that a combination of the two will give you the best of both. Even a small section of chain between the anchor and nylon line improves the operation of the anchor rode for signs of wear and replace it when it becomes worn. And most importantly, make sure your rode is connected to your boat!

Anchoring itself is more than just throwing the anchor overboard, here are some simple steps you should follow. Whenever you anchor, your boat will have a tendency to swing in a circle around the anchor location if the wind or current change. Be sure to keep that in mind and allow for clearance from other boats or obstacles when you select your anchoring location. Approach your anchor spot with the boat heading into the wind or current. Slowly proceed about two boat lengths past that spot, come to a stop and slowly lower the anchor over the side. Never throw the anchor overboard - you may cause the rode to become tangled in the anchor and impede the proper deployment. It is always a good idea for the person deploying the anchor to wear a lifejacket.

When the anchor hits bottom, reverse the engines and continue to let out additional line. To determine how much line you need, you should note the depth of the water and the height of the boat and multiply that by five. This is called "scope" and, under normal conditions, we use a five to one ratio. As an example, if the water depth is fifteen feet, and the cleat on your boat is two feet above the water, you would multiply seventeen by five and use eighty-five feet of line. Scope can be increased or shortened depending on the wind and wave conditions or the type of rode you use. For an all chain rode, you could reduce the scope ratio to three to one.

Conversely, if the weather conditions are rough you should increase the scope ratio to seven or ten to one. You can see that you need to know the water depth for your activities when you purchase your anchor and rode. Buying one hundred feet of rode, if you fish offshore, will not give you enough scope to anchor properly.

Once you set the anchor, you need to determine if you are, indeed, anchored or if you are just dragging the anchor across the bottom. If your GPS has an anchor monitor feature, you could set that. Otherwise try to find two objects at least forty-five degrees apart and visually check to see if they remain on a constant bearing. Keep in mind that the boat may pivot about the anchor. Alternatively, you can check by pulling on the rode – an anchor dragging and not set will cause vibrations on the rode. Periodically check to make sure the anchor remains set.

One trick to use if trying to anchor on a fishing spot offshore is to use a float marker. The float marker can be as simple as a gallon milk jug tied to some fishing line and egg sinkers. When you reach your spot, throw the marker overboard. Bring your boat next to the marker with no headway and let the wind and waves cause you to drift away from the marker. After a few minutes you will turn the bow of your boat to head toward the marker, using your engines slowly in reverse. When your bow points directly at the marker record the compass bearing. Proceed at idle speed forward toward the marker and run past it on that compass course. Come to a stop about three to four boat lengths past the marker. It takes practice to get this right, but you should be able to pick up the marker from the stern of your boat if done correctly.

To raise, or weigh anchor, slowly move forward while pulling in the slack rode. Do not try to pull the boat forward toward the anchor, that's why you have engines. Once directly over the anchor bring the boat to a stop and lift the line to free the anchor. Bring the line onboard hand-over-hand. When the anchor surfaces, check to make sure it is clean before bringing it on the boat. If the anchor is stuck, wrap the line around the forward cleat and proceed forward a few feet. If that does not free it, try moving the boat in a large circle around the anchor to change the pull direction. Be careful not to get the line fouled in your props. A simple aid for retrieving stuck anchors is to connect your rode to the anchor by using and anchor saving technique. To do this you use some form of shear device to connect the anchor at the shaft end and a hard connection at the head of the anchor. When the anchor is stuck, proceeding forward with your engines will break the connection at the shaft and allow you to pull directly on the anchor head to free it. There are commercial systems for this and I highly recommend connecting your anchor this way.

If the anchor refuses to budge be prepared to cut the line. Replacing an anchor is not cheap, but too many people have lost far more trying to retrieve an anchor. You may recall the tragic deaths of two NFL football players and their friend back in 2009 when they tried to free an anchor and capsized their boat doing so.

If you do lose your anchor, record the GPS location and bring it to the Scuba Marco Dive Shop on Bald Eagle. They will try to find and retrieve your anchor for a fee.

Once the anchor is back onboard, make sure you secure it. Never leave the anchor loose on deck as wave action or boat motion could cause it to damage the deck - or worse.

For more information about safe boating courses Joe Riccio, (239)-384-7416 or <u>CGAUXCOURSES@GMAIL.COM</u>.

To schedule your **FREE** Vessel Safety Check, please call: John Moyer, (239)-248-7078 or Coast Guard Auxiliary Station – Flotilla 95, (239) 394-5911 or email John at <u>Jmoyer1528@aol.com</u>.

For those interested in joining Flotilla 95, USCG Auxiliary, please call Bob Shmihluk at (215) – 694-3305



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