



## **Safety Thursday: PFDs**

**April 18, 2013**

*Competitors please note: A change was made in 2013 to the Mac Safety Regulations concerning PFDs, and more specifically banning belt pack PFDs from the Race. Please read this email carefully to avoid difficulty with inspections.*

One most critical piece of safety equipment on any boat are personal flotation devices (PFDs), or life jackets. Most boating-related deaths involve people who are not wearing PFDs. The US Coast Guard estimates that about 80 percent of boating fatality victims would have survived if they were wearing PFDs.

The rate of wearing PFDs is still remarkably low. A 2012 survey shows that only about 22% of adult sailors wear PFDs. When looking at sailboats with cabins, that rate drops to 12%.

PFDs help increase odds of survival in a person overboard situation in two ways. First, they keep you afloat. Second, particularly in the colder waters of the northern Lake, they keep more of your body above water and let you float using less energy, thus delaying the onset of hypothermia.

There are two interlocking sets of requirements regarding PFDs for the Mac. First, Federal and State Law requires the carriage of PFDs onboard. The US Coast Guard certifies PFDs and divides them into different Types. See [www.uscgboating.org](http://www.uscgboating.org) for more information. To meet USCG requirements, a boat must have a USCG-approved Type I, II, III or V for each person on board, plus one type IV throwable device. All states have laws concerning

life jacket wear by children. You should be familiar with USGC requirements and state requirements, as these of course trump the Mac Safety Regs (MSRs).

The MSRs address PFD carriage and use as well. Multihull MSR 72 and Monohull MSR 67 spell out the requirements for PFD carriage. In summary, you must carry either a Type I USCG PFD or an inflatable PFD having at least 32 pounds of buoyancy designed to securely suspend an unconscious person face upwards at approximately forty-five (45) degrees to the water surface. All inflatable PFDs shall have a compressed gas inflation system. Inflatable PFDs need not have a water-activated auto-inflate system in order to satisfy this requirement.

Please note that if you choose to carry an inflatable that meets MSR requirements, it does not exempt you from USCG requirements. You may need to carry a USCG Type I, II or III in addition to the inflatable. Some inflatables - notably the Spinlock Deckvest - are NOT USCG certified and thus do not count towards the USCG requirements. Remember - you are subject to inspection by the Mac Committee, but all boaters are subject to inspection by law enforcement officials as well.

Please note an important change to the PFD requirements for 2013. In past years, so-called 'belt pack' inflatable PFDs were permitted to be worn and counted as your MSR-compliant PFD. We eliminated this for 2013. This year and going forward, belt-pack PFDs will NOT count as the PFDs that are required to be carried and worn at night by the MSRs. The Committee made this change in response to numerous safety studies, most prominently that investigating the Farallones accident in 2012 (<http://media.ussailing.org/AssetFactory.aspx?vid=18674>). It has become clear that belt pack PFDs are inappropriate for offshore sailboat racing; in the event of a person going into the water, their ability to don and inflate such a PFD would be limited or nonexistent.

All PFDs must have a whistle, a waterproof light, reflective material, be marked with the boat or wearer's name, and be compatible with the safety harness. Additionally, the MSRs require that each crew member carry a knife that can be accessed and opened with one hand, even when the PFD is inflated (a subsequent "Safety Thursday" will address knives). Give some thought of how you can reach this knife when wearing your PFD. Will the inflated PFD make it impossible for you to grab the knife in an emergency? We encourage you to orally inflate your PFD (if inflatable) to see just how easily you can find and use your knife in these circumstances.

Beyond the carriage requirements, the MSRs require that PFDs be worn at all times between sunset and sunrise, and at all other times unless the Person in Charge directs otherwise. (Competitors in the Double Handed division must wear PFDs at all time when out of the Cabin). This is common sense. A man overboard situation at night is much more serious in general than one during the day. Having adequate flotation is thus even more critical at night. However, we encourage all competitors and Persons in Charge to consider wearing a PFD at all times when out of the cabin. No one can predict when a MOB will occur.

Finally, now is the time to take 10 minutes to examine and maintain your PFD. If it is inflatable, follow the manufacturer's recommendations to test it. . It is critical that all PFDs be properly examined and tested at least annually. You won't have time to do that when it comes time to use the PFD! Furthermore, a PFD that is inoperable or with an expired inflation cartridge is not in compliance with the MSRs.

Resources:

How to test your PFD:

<http://www.boatsafe.com/nauticalknowhow/testpfd.htm>

What to Carry on your life jacket:

<http://www.yachtingmagazine.com/blog-post/cruising-chartering/yachting-life/life-jacket-extras-what-to-put-in-your-life-vests-pocket>

BoatUS Foundation:

<http://www.boatus.com/foundation/Findings/50/default.asp>

USCG BoatSafe:

<http://www.uscgboating.org/>

## USCG Life Jacket Use Study

<http://www.uscgboating.org/assets/1/AssetManager/2012%20Life%20Jacket%20Wear%20Observation%20Study.pdf>

*Note: The purpose of this article is to highlight some of the Mac Safety Regulations and how your crew can race the Mac as safely as possible. As always, ultimate responsibility for the safety of the crew and the decision whether to race or to stop racing is that of the skipper (RRS4, MSR2). This email is meant as a courtesy only and you should always refer to the Race Documents section of the website for the Notice of Race, Sailing Instructions and Mac Safety Regulations, which govern the race.*

End of Message...