



Safety Thursday - Tethers and Jacklines

May 10, 2013

Tethers are a key piece of safety equipment. When paired with an appropriate harness, they keep a sailor attached to his or her boat. Tethers can be attached to either a jackline or a padeye on the deck. Tethers are the best preventer of man overboard incidents.

The Farallones accident in 2012 emphasized the importance of staying attached to the boat in an emergency. See Par. 2.2 of the US Sailing Report at <http://media.ussailing.org/AssetFactory.aspx?vid=18674> . Tethers combined with an appropriate harness/PFD and strong attachment to the boat is the key to staying with the boat in an emergency.

Multihull MSR 75 / Monohull MSR 70 require that each crew member “shall have a harness, and a safety line (tether) not more than seven (7) feet long with a snap hook at one end and a quick release shackle on the harness end that is releasable under heavy load.”

The language of the MSRs changed last year regarding the quick-release shackle at the harness end that is releasable under heavy load. It is critical that a sailor be able to disengage the harness under load in certain circumstances, such as when being dragged along the side of a boat after going over. “Cowhitch”-type attachments or shackles that cannot be released under load can be extremely dangerous and are thus prohibited on the Mac. Please note that one popular Spinlock-branded tether has a cowhitch at the body end of the tether and thus is not compliant with the Mac safety regulations.

In addition to the bare minimum requirements of the MSRs, there are other features you can look to in a tether. Some tethers include an indicator flag sewn in which will show when the tether has been subject to severe stress. Tethers which have undergone heavy load should be immediately replaced, and the indicator flag notifies you when this is necessary. Another feature to consider for is a tethers that has two 'legs' - generally one 1-meter and one 2-meters. This allows you to move about the boat without ever having to unclip.

US Sailing prescription under ISAF Special Regulation 5.02.4 recommends that tethers be employed whenever conditions warrant, and always in rough weather, or cold water, or at night, or under conditions of restricted visibility or when sailing short-handed.

Your tether must attach securely to a harness. Many harnesses are integrated with a PFD. There are few circumstances where you would want to wear a harness without a PFD, so these combined units make sense. It is strongly recommended that harnesses or PFD/harness combos be fitted with crotch straps or leg straps, to prevent an inflated PFD from riding up on your body while you are in the water. Harnesses must be adjusted by the crew member for a proper, tight fit.

A few hints on tether use:

- *Never unclip someone else's tether unless they ask you to.
- *Attach your tether to a jackline or strong point before coming up from below deck, and never unclip until you are back below.
- *Never attach a tether to a lifeline or stantion; they cannot withstand the loads.
- *Jacklines must be attached to a through-bolted or welded deck plate. They should be made of stainless steel or webbing of equivalent strength.
- *As a matter of courtesy to the off watch and your boat owner, don't drag your tether hook on the deck. Lift it with one hand and drag it along the lifeline if possible.
- *If your harness incorporates an inflatable PFD, try releasing your tether while the PFD is inflated. It is often extremely difficult to reach the shackle when the PFD is inflated.
- *When attaching your safety knife, consider how you can reach it with a fully-inflated PFD and tether attached.

Some good resources on tethers and harnesses:

US Sailing Safety at Sea Studies - Safety Tips

<http://offshore.ussailing.org/Assets/Offshore/SAS+Studies/safety+tips.pdf>

US Sailing Harness & Tether Study (1999):

<http://offshore.ussailing.org/Assets/Offshore/SAS+Studies/Safety+At+Sea+Studies.pdf>

As always, if you have any questions, please contact our Race Coordinator at racecoordinator@chicagoyachtclub.org

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.

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