



**This is a CCA Safety Moment**

**Safety Harnesses and Tethers (Safety Lines) for Sailboats**

**Harness & Tether Requirements**

- Every crew member must have a harness & tether not more than 6 ft (or 2 meters) long. Look for approval under International Standard ISO12401 or European Standard EN 1095.
- Harnesses must be compatible with crew members' lifejackets.
- Tethers must be detachable at both ends.
- Tether hooks must be self closing and require deliberate action to open.
- The attachment point of a harness must be above the lowest point of the sternum (breast bone) of the wearer
- Tethers purchased after Jan 2001 must have an overload stitch that should be checked before use.
- 30% of each crew must have a short tether (3 ft long) or a mid-point hook on their long tether.
- US Sailing prescribes that harnesses and lifejackets shall be worn offshore from sundown to sun up while on deck.

*Note: ISO12401 and EN 1095 define the length from the attachment point on deck to the attachment point on the harness, state that adult tethers must be detachable at both ends and that hooks must be self closing and not able to open except with deliberate action. Tethers for children are allowed to be permanently fixed to a harness.*

**When to wear Harnesses & Tethers**

- *US Sailing recommends wearing harnesses and lifejackets whenever conditions warrant and always when reefed, in rough weather, on cold water, at night, and when sailing short-handed or under conditions of reduced visibility.*
- There are no firm guidelines issued by ISAF or US Sailing for when to use tethers.
- Some race organizers include guidelines in their safety requirements and race documents.
- Most Captains or Watch Captains of racing and cruising sailboats establish specific guidelines.
- **It remains an individual responsibility to be totally familiar with your harness and tether and use it for your personal safety whenever you think it is required.**
- The following points should be understood by each individual using a tether:
  - Always attach the body end of your tether to both loops on the front of your harness
  - A snap shackle that will release easily under load is recommended at the body end of all tethers

- Do not attach the unused boat end of your short tether to your harness or body
- If your tether is attached to your harness with a cow hitch know how to cut it free

**Notes, Warnings and Recommendations** from ISAF, US Sailing, manufacturers and event organizers

- *Harnesses and Tethers manufactured prior to Jan 2001 are not recommended.*
- *Harnesses should be fitted with leg straps (crotch or thigh straps) with related fittings and fixtures strong enough to lift the wearer from the water.*
- *US Sailing recommends that safety harnesses should be integrated with inflatable lifejackets.*
- *ISAF warns that it is possible for a plain snap hook on a tether to disengage from a U-bolt if the hook is rotated under load at right-angles to the axis of the U-bolt. For this reason the use of safety hooks with positive locking devices is strongly recommended.*
- *It is strongly recommended that stitching on harnesses and tethers/safety lines be of a color contrasting with the material to draw attention to wear and damage.*
- *It is strongly recommended that snap hooks be of the type that will not self release from a U-bolt and can be easily released under load.*
- *It is strongly recommended that static tethers be securely fastened at work stations on deck.*
- *Crew members are reminded that a personal knife may free them from a tether/safety line in an emergency.*
- *A crew member should adjust a harness to fit before an event then retain it for the duration of the event.*
- *Warning. A tether and a harness are not designed to tow a person in the water. **It is important that the shortest tether possible be used with a harness to minimize or eliminate the risk of a person's torso becoming immersed in the water outside of the boat, especially when working on the foredeck. 3 ft tethers/safety lines or midpoint safety hooks on 6 ft tethers/safety lines should be used for this purpose.***
- ***The diligent use of a properly adjusted harness and the shortest tether practicable is regarded as by far the most effective way of preventing man overboard incidents.***

### **Recent Lessons Learned**

- There are three types of double action tether safety hooks common in the US - Wichard, Gibb and Kong. Try them before you buy a tether to be sure that you & your crew can easily open it with one hand.
- All crew members should carry a very sharp or serrated knife or a webbing cutter that can be easily reached, opened & operated with one hand and is capable of easily cutting a tether.
- Always put your tether on below decks and reach topside to attach it to a jackline or U-bolt before you come on deck. Do the reverse when going below.
- Unclip your tether from your harness below decks, leaving the boat end attached topside or next to the companionway hatch where it is readily available when you need it again
- Use as short a tether as possible topside so that you will not go over the side, but instead will remain on deck if you fall or get hit by a wave.

- Elasticized tethers help keep the slack out of tethers when attached to a jackline and are preferred by many people.
- Use short tethers that are pre-placed at work stations like the helm or at the boom gooseneck while you remain attached to a jackline or other point with your personal tether.
- Wear your tether when/if you abandon ship, attaching it to the liferaft painter before you climb into the raft or enter the water
- Learn to use your tether to keep a group of survivors together and tied to the boat or raft if you are in the water
- Many 'quick release snap shackles' on the tethers have problems opening when under heavy load. Be aware they are very hard or impossible to release under some conditions. It is a good idea have the release line of the shackle pointed toward your dominate hand. Some people change to a more expensive Quick-Release Shackles that are designed to work under much greater loads.
- The following points of 'Tether Etiquette' are recommended:
  - Never clip onto a lifeline
  - Always hook your tether with the safety hook opening side facing up on a jackline
  - Never unhook a shipmate's tether when passing along a jackline. Always unhook and move your own safety hook back on the other side
  - Don't drag you tether's safety hook along the deck when moving around the boat.

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