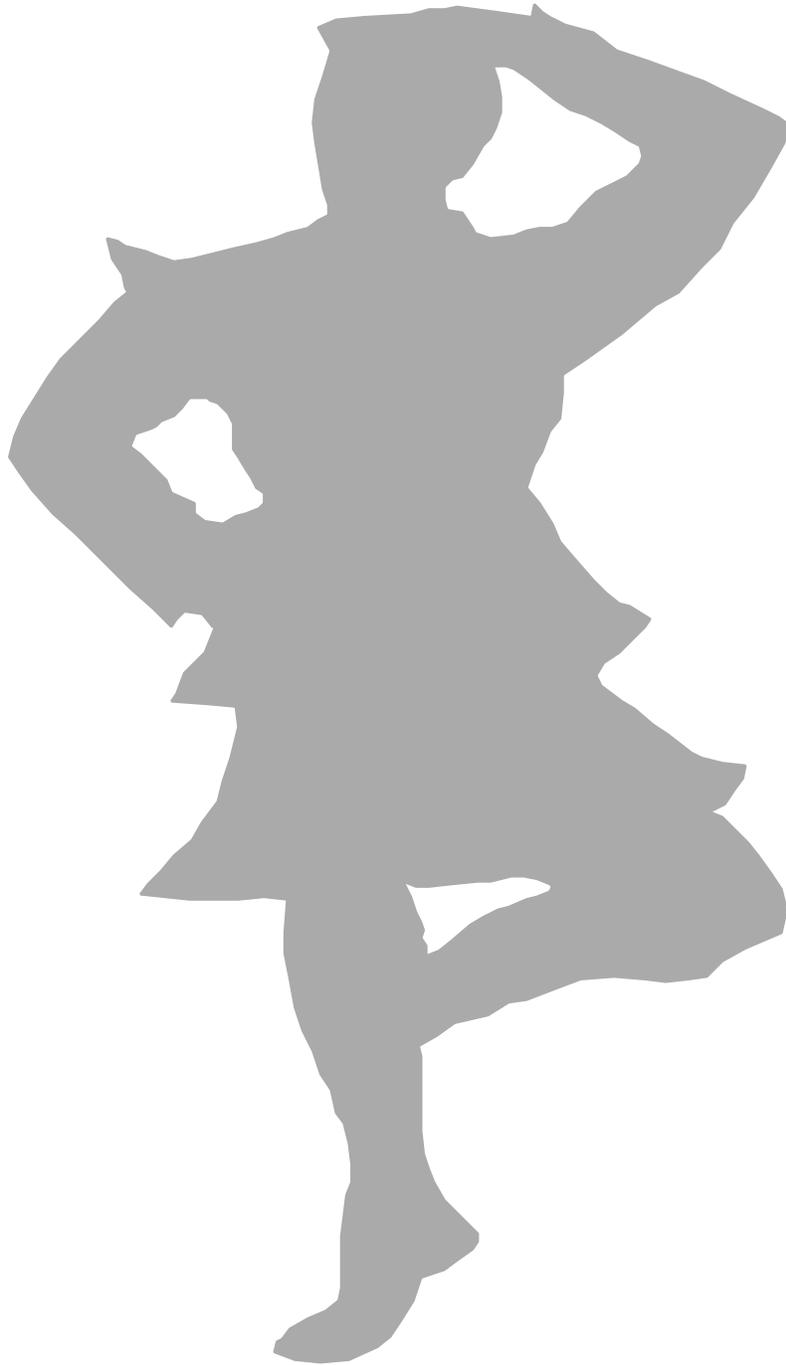


**HIGHLANDER FLEET 14  
CAPSIZE AND RECOVERY DRILL**



**August, 2001**

## OH NO, WERE GOING OVER!!!!!!

If you should be so lucky to go swimming with your Highlander some day, there are a few things that you should know.

First of all, don't panic! A Highlander won't sink - especially the ones with seat tanks as well as a bow tank. You will just get wet. Always stay with the boat! If you weren't wearing your life jackets before this capsize event, get them on before anything else is done.

Capsizing is a common event among centerboard boats, so don't stray too far from help if the weather is marginal. This is one reason why a racing program is so beneficial - you will always be near other boats that are willing to assist you.

If you are certain that you are going to capsize, do all you can to get over on the centerboard ASAP. Sometimes one person can go over the dry gunnel and on to the centerboard without getting into the water and wasting time swimming around the bow or stern.

**ALSO**, your first priority would be to uncleat the centerboard control line so the board can be pulled out all the way, as it would be in the down position.

Most capsizes occur while sailing downwind where the board is cleated halfway up or so. If you neglect to do this, you may not have the leverage you will need to tip the boat upright. It may be too dangerous to send someone under the boat to do this. You can get tangled in lines under there.

Once you have someone on the centerboard, the boat will be unlikely to turn completely upside down (Turn Turtle). (See Sketch #6.)

However, in rough conditions, the boat can turtle very quickly, especially if the winds are strong and hitting the hull broadside. This forces the mast down very quickly.

After a capsize, rotate the boat so the bow is into the wind and waves before making preparations to righting your Highlander. Also take note of the wind direction and the location of the shore or breakwall in relation to the wind. If you haven't turned turtle, you may want to set your anchor. If you have turned turtle, you can set your anchor after you get the boat back on its side. If the boat has turtled, have someone climb up on the hull and stick their

fingers into the aft end of the centerboard trunk and lift up the end of the board.

As the board is lifted to its full extension, **BE SURE TO HANG ONTO THE BOARD AT ALL TIMES PULLING UPWARD AS YOU PULL SIDWAYS ON IT OR THE BOARD MAY FALL DOWN THROUGH THE SLOT AND DISAPPEAR UNDER THE BOAT OR END UP AT THE BOTTOM OF THE LAKE!** (See Sketch #2)

Once the board is extended, get everyone to pulling sideways on the board. (See Sketch #4) With everyone hanging onto the board and each other, the boat will, eventually, start to right itself. Be Patient. There is a lot of resistance under the boat with all the sails dangling below.

Once the mast comes up to the surface, keep one or two crew on the centerboard and send someone around the other side to release the halyards and pull down the sails. (See Sketch #7) If you still have the winches on your mast, hopefully, you have tied your winch handles to something. If not, you'd better have something sharp to wedge under the 'dog' on the winch drum to pop it up and release the halyard.

Sometimes, it is a good idea to tie an extra life jacket or floating cushion to the top of the mast so it won't sink again. However, you might want to take it off before you proceed with righting the boat.

Proceed with righting the boat. (See Sketch #8)

As the boat is righted and the mast is once again pointing skyward, it will be **VERY UNSTABLE** when it is full of water. Have one of your crew on each side of the boat helping to stabilize the hull without overpowering the person on the other side. The crew may have to move forward of the side stays on each side and pull down slightly in order to get the transom out of the water due to the floatation of the bow tank. The third crew person will carefully get into the boat to **find something to stuff into the centerboard slot.** (See Sketch 9) This can be a towel, some rags, a jacket, a sweatshirt or a life jacket. This has to be done before you start bailing since the centerboard slot will be about a foot below the surface of the water.

The Highlander holds **A LOT OF WATER!** So you will have to rotate your crew unless you have some really strong dudes as crew.

If there are waves coming out of the northwest to northeast on Lake Erie,

they may be too high and will lap over the sides hindering your bailing efforts. A Highlander's deck will be only a few inches above the water when full of water.

If there is a crash boat standing by and you have transom doors, you can open them and then have the crash boat carefully tow you at slow to moderate speeds. A lot of the water will come out quickly or even over the transom if this is done carefully and correctly. Be sure to have someone in the boat as this is done to close the transom doors at some point. You still will have some bailing to do, but only about a third of the effort will be required.

Boats with a bow eye at deck level may tend to submarine while being pulled forward. The person in the boat can try to keep their weight as far aft as possible to try to counteract the submarining of the bow.

## HIGH WINDS AND WAVES

If the conditions are very rough with high waves that will prohibit any effective bailing, the only recourse would be to anchor the boat and hopefully have assistance from another boat to take everyone ashore to wait for the waves to subside or just abandon it and let the insurance company deal with it. It is not worth putting any lives in danger.

In high waves, a Highlander is not designed to lay on its side for very long without significant damage. The forces on the hull and rigging by the waves will cause the side stays to eventually saw through the deck. If the boat is lying on its side, the only recourse would be to dismast. Taking into account **SAFETY FIRST**, you may be able to disconnect the forestay and let the mast fold down and then the boat will be more stable and can be more easily towed full of water, if in doing this it ends up in the upright condition.

Highlander masts are filled with foam and they will float, however, the mast can do a lot of damage to the hull slapping up against it over a period of time. It may be better to try and disconnect all of the stays or cut them away and tow the mast separately away from the hull. **THIS SHOULD ONLY BE ATTEMPTED WITH THE UTMOST SAFETY!**

This document is designed to help you and hopefully, not scare you. Again, capsizing is a common event with centerboard boats. It is recommended that you not stray too far from others that may be able to help you if you have difficulty.

encl. Sketches #1 to #9 on page 5

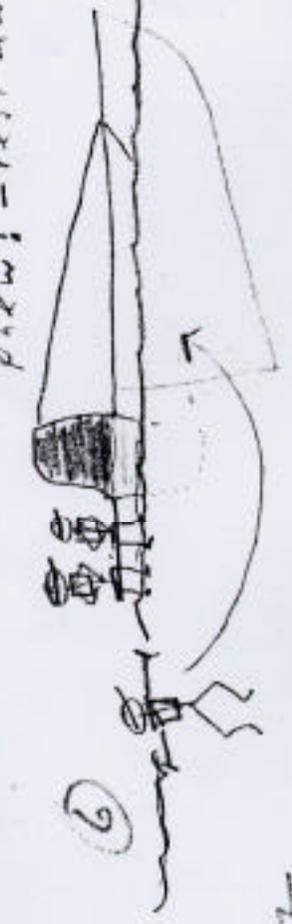
wind →

Turn Boat into wind,  
Reach in and pull up center board

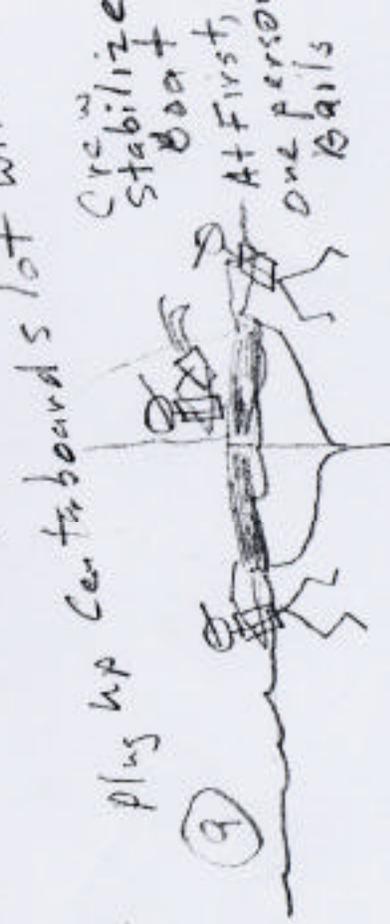
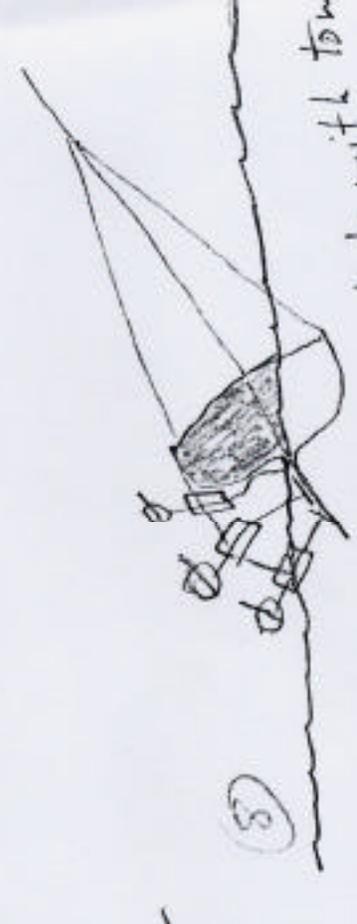
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Prevent board from falling down through the slot



Lowers Sails



Crew stabilize Boat  
At First, one person

plug up centerboards lot with ton

