Preparing Your Boat for a Storm

If your boat is moored, docked, or stored in a recreational harbor, the threat of hurricanes is a very real concern. Even the least severe Category 1 hurricane can have devastating effects in today's crowded harbors. These high-density areas can be disasters waiting to happen because of the close proximity of vessels to one another, faulty mooring maintenance, and a general lack of hurricane preparedness.

Although the harbor manager or harbor master will try to ensure that boats in their harbor are safe, the ultimate responsibility falls upon the boat owner. In order to protect personal property and the vessels around them, owners must:

- Know their boat and their own skills
- Know the surrounding area and potential weather threats
- **Have a Hurricane/Storm Plan**

Creating a plan and being ready for a hurricane starts well in advance of the boating season. When boat owners prepare their vessel for the boating season, they should also prepare a hurricane plan. Prior to the hurricane season, decisions should be made as to where the safest place for the vessel would be, the adequacy of the present mooring or dock, and what type of equipment is necessary to have on board. Each boat owner needs a plan unique to the type of boat, local boating environment, the severe weather conditions likely to occur, and the characteristics of safe havens available.

Advanced Awareness

1. Prior to the hurricane season, develop a detailed plan of action to secure your vessel in the marina. If permitted, remove your boat from the threatened area, or take your boat to a previously identified hurricane refuge. Specifically, identify and assemble needed equipment and supplies. Keep them together. Before hurricane season, practice your plan to ensure that it works.
2. Know the preparation status of all neighboring boats and hurricane plan of your boatyard or marina. **This has to be a group effort.**
3. Arrange for a friend to carry out your plans if you are out of town during hurricane season.
4. Check your lease or storage rental agreement with the marina or storage area. Know your responsibilities and liabilities as well as those of the marina.
5. Consolidate all records, including insurance policies, a recent photo of your vessel, boat registration, equipment inventory, lease agreement with the marina or storage area, and telephone numbers of appropriate authorities (i.e., harbor master, Coast Guard, insurance agent, National Weather Service, etc.) and keep them in your possession.
6. Before a hurricane threatens, analyze how you will remove valuable equipment from the boat and how long it will take, so you will have an accurate estimate of the time and work involved. When a hurricane is approaching, and after you have made anchoring or mooring provisions, remove all moveable equipment such as canvas, sails, dinghies, radios, cushions, biminis and roller furling sails. Lash down everything you cannot remove such as tillers, wheels, booms, etc. Make sure the electrical system is cut off unless you plan to leave the boat in the water, and remove the battery to eliminate the risk of fire or other damage.

Safeguarding Recreational Boats

Option 1: Get out of the water

If the vessel is small and trailers easily, it should be taken out of the water and moved to higher ground. This is the safest means of protecting a vessel. Being out of the water does not automatically mean that your boat is safe. It is only protected from the storm surge and wave action – rain and wind must still be considered.

Option 2: Stay in the water

Staying in the water assumes that the vessel will either: (1) stay on the mooring or dock; (2) go to a hurricane hole to anchor; or (3) head out to sea. Hurricane conditions at sea are extremely violent. Going offshore should not be

Photo in background courtesy of S. Teper, ©2004

considered as a viable option for most recreational boaters.

What You Should Do…

…IF you can trailer your boat:

- Determine the requirement to load and haul your boat to a safer area. Be sure your tow vehicle is capable of properly and adequately moving the boat. Check your trailer: tires, bearings and axle should all be in good condition. Too often a flat tire, frozen bearings or broken axle prevents the owner from moving a boat.
- Once at a "safe" place, lash your boat to the trailer and place blocks between the frame members and the axle inside each wheel. Owners of light weight boats, after consulting with the manufacturer, may wish to consider letting about half the air out of the tires, then filling the boat one-third full of water to help hold it down. (The blocks will prevent damage to the springs from the additional weight of the water.)
- Secure your boat with heavy lines to fixed objects. Try to pick a location that allows you to secure it from all four directions, because hurricane winds rotate and change direction. It can be tied down to screw anchors secured into the ground. Remember that trees are often blown over during a hurricane.

…IF your non-trailerable boat is in dry storage:

- Determine the safest, most realistic, obtainable haven for your boat, and make arrangements to move your boat there. When selecting a "safe" location, be sure to consider whether storm surge could rise into the area. Wherever you choose to locate your boat for the duration of the hurricane, lash the boat to its cradle with heavy lines and consider, based on the weight of the boat, adding water to the bilge to help hold it down.
- Never leave a boat on davits or on a hydro-lift.

…IF your non-trailerable boat is in wet storage:

The owner of a large boat, usually one moored in a berth, has three options that each requires a separate strategy:

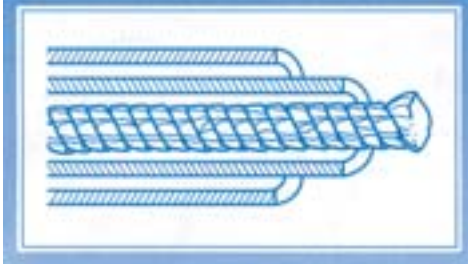
- Secure the boat in the marina berth.
- Moor the boat in a previously identified safe area.
- Haul the boat.

…IF your boat will remain in marina berth:

- Double all lines. Rig crossing spring lines fore and aft. Attach lines high on pilings to allow for tidal rise or surge. Make sure lines will not slip off pilings. Inspect pilings and choose those that seem strongest and tallest and are properly installed. The longer the dock lines, the better a boat will be at coping with high tides. It is also essential to double up on all lines and use chafe protectors at any potential chafe points.
- Cover all lines at rough points to prevent chafing. Wrap with tape, rags, and rubber hoses, etc. Install fenders to protect the boat from rubbing against the pier, pilings and other boats.
- Assess the attachment of primary cleats, winches and chocks. These should have substantial back plates and adequate stainless steel bolt sizes.
- Batteries should be fully charged and checked to ensure their capability to run automatic bilge pumps for the duration of the storm. Consider backup batteries. Cut off all devices consuming electricity except bilge pumps.
- **Do Not Stay Aboard.** Storm conditions are extremely violent. First and foremost, safeguard human life.

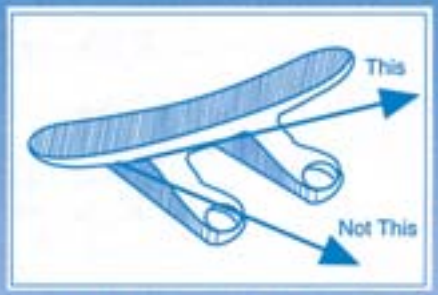
Sources:
www.boatus.com/seaworthy/hurricane/default.asp; http://seagrant.gso.uri.edu/factsheets/hurncane.html; Major Storm Preparedness, Aware Boaters Checklist, FEMA Region 1.

Critical Points



Using a polyester line from the cleat through the chock, secured to an existing nylon line to the piling or mooring, gives you better protection from chafe, while also absorbing shock. Make eye splices in both lines with at least five tucks.

A properly backed cleat: Note the washers and the backing plate. These are essential in a hurricane and a good idea in quieter times as well.



Lines led perpendicular from a cleat can wrench the cleat out of the deck. Two-hole cleats are more vulnerable than four-hole cleats.