

Storm event preparations

The key to protecting your boat from any threatening severe weather is planning, preparation and timely action. Severe storm conditions can damage or sink boats that could potentially spill or vent fuel, oils and other chemicals into the marine environment. If a boat causes damage during a natural disaster, the boat owner/operator may be held responsible. Upon receiving a severe weather warning the boat owner should immediately take precautionary measures to see that the boat is properly secured.

Each boat owner needs a plan unique to the type of boat, the local boating environment, the severe weather conditions and the characteristics of safe havens and/or plans for protection. The following preparation and precautionary suggestions are issued as guidelines only.

Know what to expect... Preparing a boat for a storm event means defending against wind, rain, waves and high water.

Surge... Storm surge can account for much damage because it puts docks and dock-line arrangements out of sequence and underwater as boats try to float above.

Wind... When wind speed doubles, wind pressure quadruples. This illustrates the need to reduce windage (the surface area your boat presents to the wind) by removing as much rigging, canvas and deck gear as possible, and pointing the bow toward the greatest anticipated exposure.

Waves... Severe storms can produce steep, breaking waves that pound normally peaceful harbours. Sea walls, barrier beaches and other structures designed to protect docks and moorings may be submerged by storm surge. This has the effect of greatly extending the "fetch," or distance, over which the wind can generate waves.

Rainfall... Cockpit decks are seldom 100% watertight, and the ability of a bilge pump and battery to handle rain accumulation is greatly overestimated. Deck drains and pump discharges located near the water line can back-flow when waves and rain put drains underwater.

Critical points

Mooring lines and Chafe gear

Regularly inspect and check your vessels mooring lines. Chafe protectors are essential on all mooring lines as winds and high water works them against fairleads and other contact points. On moorings or at anchor, lines stretched over the rail can create sufficient internal heat to melt them. Polyester (Dacron) stretches less, but is much more chafe resistant than nylon. Using a polyester line from the cleat through the fairlead and then joining it with a nylon line (using two eyes) to the piling or mooring provides the chafe resistance of polyester line and the stretch of nylon. Covering lines with hose or duct tape at the fairleads greatly increases the degree of protection. Consider doubling up mooring lines leaving sufficient slack in the additional lines to only become "live" should the first line chafe through during the storm event.

Cleats and fairleads

These are two of the most commonly neglected – yet strategic – pieces of equipment on your boat. This becomes woefully apparent when larger diameter storm lines are brought into use during a storm. Check your cleats to make sure they are backed properly with stainless steel or aluminum plates. Marine plywood is acceptable if it's free of rot and delamination. Securely backed winches on sailboats and even keel-stepped masts also can be used to secure lines at a dock. (Note: Anchor lines should not be secured to the mast as it increases the chance of chafe failure.) Two lines per cleat is a good maximum, and they should not be led perpendicular to the base, but rather at a smaller angle, to avoid wrenching out the cleat.

Reduce windage

Strip all loose gear that creates windage: canvas covers, bimini tops, outriggers, antennas, anchors, running rigging, booms, life rings, dinghies, portable davits, etc. Lash down anything on deck that can't be taken off. Remove sails – especially roller-furling headsails, which create substantial windage, particularly when they come, unfurled. All halyards should be run to the masthead and secured with a single line to the rails to minimize windage and flogging damage to the mast. The line can be used to retrieve the halyards later.