

## **NAUTICO MARINA**

### **Hurricane Preparedness Guide**

Most of us in the Tampa Bay area are accustomed to storms and lightning, ranging from afternoon thunderstorms, which are a regular occurrence during certain times of the year, to large hurricanes, which are a particular threat during the summer and early fall. Marinas are particularly susceptible to hurricane damage, largely as a result of storm surge, a mass of wind-driven water that produces an abnormal increase in sea level. Storm surge could conceivably reach 25 feet above sea level, and can be particularly destructive when accompanied by high tide. Of course, in such an extreme event, the best preparations will make little difference. Fortunately, the Tampa Bay area has rarely experienced a direct hit by a large hurricane, and has usually experienced only high winds and tides a few feet above normal.

#### **Hurricanes are divided into the following categories:**

<b>Category</b>	<b>Wind Velocity</b>	<b>Tidal Surge</b>
I	74 - 95 mph	+ 5- 7 feet msl
II	96 - 110 mph	+ 8-10 feet msl
III	111 - 130 mph	+11-12 feet msl
IV	131 - 155 mph	+19 feet msl

The Q-Dock system of the Nautico Marina has been engineered to withstand a storm surge to 10 feet above mean sea level, and is the result of considerable investigation into the effect of hurricanes on other marinas around the country. Most damage is expected from boats and debris broken loose by high winds, hence our emphasis on preparation.

\*If a hurricane threatens the Tampa Bay area, Nautico Marina will operate according to this plan\*

**STAGE I-** will be in effect in the event a Hurricane Watch is issued by The National Hurricane Center. **All marina employees** will report to the Dockmaster as quickly as possible. Nautico Marina dock crews will work in pairs and will (1) remove or secure loose gear or equipment on docks or upland areas, (2) remove dinghies from storage areas and secure them ashore, and (3) patrol marina and help boat owners secure boats and equipment in marina. All managers of commercial and office components of Nautico Marina and all boat owners will be alerted to the possibility of an evacuation during this stage. At the discretion of the Dockmaster, boats stored on racks outside will be moved into the High & Dry Building. Access to boats in dry storage will be limited at this time.

**STAGE II-** goes into effect when an evacuation of Pinellas County is ordered or when a Hurricane Watch is upgraded to a Hurricane Warning. Our Dockmaster and crews will notify any commercial and office managers, boat owners and guests that they must begin evacuation. Interstate 1-275 is the designated evacuation route from our location. Travel North on 31<sup>ST</sup> street to 54<sup>th</sup> avenue then west to the Interstate-275 ramp, then north to the highest ground (see attached map). Our dock crews will secure landside facilities and disconnect all fuel pumps from the fuel storage tanks. All preparations and evacuation shall be completed prior to the arrival of gale force winds (sustained 40 mph) provided sufficient warning has been given by Pinellas County officials.

**STAGE III-** goes into effect when an evacuation of all personnel is implemented by the Dockmaster early enough to allow employees to return home to evacuate themselves and their families. The Dockmaster will maintain close contact with public authorities, and will immediately notify marina personnel upon notice from these authorities. Before evacuating, the Dockmaster will ensure that all security gates are locked, water mains are turned off, and electrical power to docks is disconnected.

#### **PREPARATIONS PRIOR TO HURRICANE SEASON**

Always make sure your boat is in good repair and shipshape condition.

1. Examine the structural condition of your vessel and repair as needed.
2. Check all thru-hull fittings, shafts, props, stuffing boxes, etc. In the event of a storm, everything except the bilge pump outlets and cockpit drains should be securely closed.
3. Make sure your vessel has proper grounding for lightning protection.

4. Disconnect radio antennas from instruments before the storm.
5. Make sure bilge pumps are in working order and batteries are properly charged.
6. Prepare a checklist of equipment needed to secure the vessel before the storm and store the equipment in a readily accessible location.
7. Purchase any supplies or equipment well in advance. Stock additional lengths of mooring lines, screw anchors, fenders, fender boards, chafing gear, and anchors. Limited supplies will run out quickly once a warning is announced.
8. Make an inventory of things to be removed from your boat.

### **AVAILABLE OPTIONS**

Three options are available to our boat owners/members.

- I. You may simply plan to better secure the boat when a storm is threatening.
- II. You may consider an alternative and "safer" dockage site (i.e. trailer boat inland).
- III. You may relocate to a "hurricane" anchorage, which is a more reasonable alternative for larger vessels (50-feet or larger).

Regardless of the chosen alternative, prepare a written plan for what you are going to do when a hurricane is threatening. There is not time to consider an alternative when clouds are gathering. Also, have a friend ready to follow up with your plan in case you are absent. Rehearse your plan with your friend and family. Try to think through what you will need to adequately secure your boat for a hurricane and how much time to allow. Perhaps have two plans, one in the event time is available, and a second if there is no time.

### **CHOOSE YOUR OPTION**

- I. If you plan to secure your boat in Nautico Marina:
  - A. Make plans to double your docklines before a storm.
    1. The second set should be one size larger.
    2. The docklines should be nylon (preferably 3-strand twist for extra chafe protection). Chafing is the main cause of line failure. Make sure you install chafe protection, such as leather or an old garden hose anywhere a line may touch the boat, dock or another line.
    3. Place fenders at appropriate locations.
    4. Tie each vessel taut, essentially suspending the vessel in a "spider web" in the center of your slip. Spring lines are particularly important, as are elastic or rubber stoppers to absorb shock.
  - B. Strip the boat decks of all sails and canvas.
  - C. Remove any running rigging, movable deck equipment, bimini tops, ventilators, anchors, and any other loose gear. Reduce windage on your boat and reduce the strain on your lines and the docking system.
  - D. Secure all hatches and tape shut.
  - E. Turn off all electricity (except bilge pumps) and disconnect power cables and hoses from dock (be sure to safely stow cables and hoses).
- II. If you plan to move to a "safer" dock site, make sure:
  - A. You have extra dock lines, chafing gear and fenders, and take all precautions noted above.
  - B. You allow plenty of time to get to the dock and to evacuate the area. Remember you may be fighting wind and rain.
- III. If you plan to move to a "hurricane hole" anchorage:
  - A. Select possible sites well in advance, before hurricane season. Please be aware that most bridges will be locked in the down position after an Evacuation Order is issued.
  - B. Make a trial run to:
    1. Verify water depth, size of anchor, chain and anchor scope needed. Enough anchor chain and line for at least six (6) times the normal 7:1 scope required should be carried for laying out the anchors (42:1). At least two anchors of the proper size for the vessel should be used; three anchors are better yet.
    2. Verify potential mooring structures (trees on shore. etc.).
    3. Verify the time required getting to the site.
    4. Figure out how to get off the boat and to a car.

## THINGS TO REMEMBER

The marina staff will be very busy just taking care of marina property in the event of a storm - they will not have time to secure your boat.

Our marina is built to survive the storm surge of a Category II hurricane.

1. The boat owner will be responsible for any damage by his boat if it should break loose - so make sure it is secured properly.
2. If the presence of any boat in the marina should present a hazard to any other boat or marina equipment, the Dockmaster will notify the owner that the boat must leave the marina, and, if the owner is not available or fails to comply, the marina may take any action necessary without liability to the marina or its representative.
3. No one shall be permitted to remain on a boat in the Nautico Marina during a hurricane.
4. Extreme caution should be exercised in all outdoor activities. In the event of injury, outside medical aid will probably not be available.
5. Any requests for assistance must be made through the Dockmaster.
6. Marina personnel shall wear Lifejackets when walking on the docks when wind velocities are in excess of 40 mph (tropical storm force winds).
7. The Nautico Marina staff will be released at least 12 hours before the storm ETA to secure their homes and families. Everyone must evacuate the marina at the order of the Dockmaster.

For your general protection, we suggest stocking last year's picnic basket or cooler with emergency provisions and placing it in a readily accessible location. Consider purchasing a cigarette lighter plug and an emergency antenna for your VHF marine radio. This will give you weather bulletins and telephone capability. Don't forget a broadcast radio, flashlight, matches and candles, camp stove, fire extinguisher, water and purification tablets, food and utensils, medical supplies and sanitary facilities. A plastic bag draped over a small garbage can with a tight fitting lid is an excellent emergency toilet. Again, careful planning, preparation and rehearsal will go a long way toward preventing damage or injury brought by a hurricane, and the exercise will most likely come in handy the next time you ride out a tropical storm.

## HURRICANE EVACUATION ROUTE:

