



*Sanibel Harbour*  
**YACHT CLUB**  
PRIVATE WET & DRY DOCKOMINIUMS

**HURRICANE PREPAREDNESS  
GUIDELINES  
FOR  
Florida Marinas**

**Prepared for the  
Sanibel Harbour Yacht Club**

Prepared by

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# **HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS**

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# HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS

## Introduction

### A. Why Hurricane Guidelines for Marinas?

Successful preparation for a hurricane depends on how early and how orderly we act. Just a few unprepared boats can inflict incredible damage on a marina, as can unsecured facilities and equipment. Marina managers must begin early in developing a formal, written plan, including suggestions and diagrams. "Hurricane Preparedness Guidelines for Florida Marinas" contains procedures agreed acceptable by the Florida Marine Business Association's (FAMBA) Hurricane Committee.

General timetables must be implemented for the various stages of hurricane preparation. Preseason marina repair and maintenance is vital to hurricane preparation, as is employee and customer training. When a storm threatens, there will not be time for these activities. Marina operators and staff must be well into preparation procedures during the U. S. Weather Service Hurricane WATCH Phase. After a hurricane watch is issued, timing is critical. This will be the time for quick and decisive action in wet slip evacuation, securing dry storage boats and preparing other areas of the marina – even though chances *may* be great that the storm will not hit. Remember – wet slip evacuations mean boats must be anchored and crews returned ashore in time to prepare and possibly to evacuate their homes. Remember that agency timetables refer to landfall of the hurricane EYE – severe weather can significantly precede the eye. Duties should be delineated in early planning. However, be prepared to make changes, depending on storm characteristics, including the probability of a direct hit and the expected intensity of the storm.

### B. When To Take Action

The track of a storm - whether or not it will hit land and where - remains highly unpredictable, despite vastly improved forecasting methods. Years of low storm activity often have been the years of the greatest hurricane disasters. Alicia, Gloria, Hugo, and Andrew were the only major storms to come ashore in the United States in recent years, and each caused record damage. It is clear that waiting until a storm's arrival to act is almost certainly inviting disaster.

A **hurricane "WATCH"** is posted when hurricane conditions pose a threat to a specified coastal area, usually within 36 hours. However, keep in mind these advisories are issued for all interests, not just for marinas and boats. Some hurricane observers believe waiting for a watch to be posted also may be too late to adequately prepare boats or marina facilities.

A **hurricane "WARNING"** is posted when sustained winds of 74 mph or higher are expected within 24 hours or less – probably too late to adequately prepare boats or marina facilities. Securing the home and evacuating the family become the primary focus at this point.

Observing barometric changes is helpful in predicting some weather patterns, but not for knowing when to prepare for a hurricane. The extreme low pressure associated with a hurricane occurs close to the eye of the storm. Local readings are too late for prediction of landfall.

Implementation of the marina hurricane plan needs to begin when a hurricane is a substantial possibility -prior to the issuance of a "watch". Waiting longer may mean attempting to make preparations during times of heavy demand from customers to remove boats, during diminishing weather conditions and with employees and volunteers becoming increasingly restless to tend to family and home. Also, for evacuating boats, bridges may be locked down and the safer harbor you chose may be filled.

What if the storm turns away? Hurricane preparation procedures are like fire extinguishes and life jackets; the good news is when they are not put to the test.

## **HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS**

### **SECTION I**

## **HURRICANE TERMINOLOGY AND INFORMATION FOR MARINA MANAGERS**

### **A. Hurricane Terminology**

**Tropical Disturbance:** A moving area of concentrated showers in the tropics, which maintains its identity for 24 hours or more.

**Tropical Depression:** An area of disturbed weather associated with low pressure and wind circulation at the surface. Highest sustained winds are less than 39 mph.

**Tropical Storm:** Same as above except highest sustained winds range from 39 to 73 mph.

**Hurricane:** Same as above except highest sustained winds are 74 mph or higher.

**Advisory:** A message released by a Hurricane Center, usually at six-hour intervals, updating information on the storm or hurricane including watches and warning whenever they are in effect.

**Special Advisory:** Same as Advisory but is issued whenever there is a significant change in any information previously released.

**Intermediate Advisory:** Updates information contained in Advisories at 2 to 3 hour intervals whenever a watch or warning is in effect.

**Gale Warning:** Wind speed of 39 – 54 mph expected.

**Storm Warning:** Wind speed of 55 – 73 mph expected.

**Hurricane Season:** June 1<sup>st</sup> through November 30<sup>th</sup>.

**Hurricane Watch:** A hurricane may threaten your area.

**Hurricane Warning:** A hurricane is expected to strike your area within 24 hours or less.

**Tornado Watch:** Tornadoes and severe thunderstorms are possible in your area.

**Tornado Warning:** Tornado detected in your area, TAKE SHELTER.

**Storm Surge:** A rise in water level above normal levels due to wind stress or, in the case of a hurricane, wind stress plus very low atmospheric pressure. Storm surge can raise water levels 17 to 20 feet causing extreme flooding. The impact worsens because the deeper water levels caused by storm surge allow larger waves to approach and break on otherwise protected structures.

## **B. Hurricane Categories**

**Category 1:** Winds 74 to 95 MPH - 4 to 5 foot storm surge. Damage primarily to shrubbery, trees, and unanchored mobile homes. No real damage to other structures. Some damage to poorly constructed signs. Low-lying coastal roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.

**Category 2:** Winds 96 to 110 MPH - 6 to 8 foot storm surge. Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs; some damage to roofing materials of buildings' and some window and door damage. No major damage to buildings. Coastal roads and low-lying escape routes inland cut by rising water two-four hours before arrival of the hurricane's center. Considerable damage to piers. Marinas will flood and small craft in unprotected anchorages may be torn from moorings.

**Category 3:** Winds 111 to 130 MPH - 9 to 12 foot storm surge. Foliage torn from trees' and large trees blown down. Practically all poorly-constructed signs blown down; some damage to roofing materials of buildings; some window and door damage; and some structural damage to small buildings. Mobile homes destroyed. Serious flooding at coast and many smaller structures near coast destroyed; low-lying escape routes inland cut by rising water three-five hours before the hurricane's center arrives.

**Category 4:** Winds 131 to 155 MPH - 13 to 18 foot storm surge. Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows and doors; complete failure of roofs on many small residences; complete destruction of mobile homes. Major damage to lower floors of structures near shore due to flooding and battering by waves and floating debris.

**Category 5:** Winds 156 MPH and above - 18 foot and above storm surge. Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down; very severe and extensive damage to windows and doors; complete failure of roofs on many residences and industrial buildings; extensive shattering of glass in windows and doors; some complete building failures; small buildings overturned or blown away and complete destruction of mobile homes. Low-lying escape routes inland cut by rising water three-five hours before the hurricane's center arrives.

### C. Saffir-Simpson Hurricane Scale

Storm Category	Barometric Pressure (Inches)	Winds (MPH)	Storm Surge (Feet)
1	28.94	74 – 95	4 – 5
2	28.50 – 28.91	96 – 110	6 – 8
3	27.91 – 28.47	111 – 130	9 – 12
4	27.17 – 27.88	131 – 155	13 – 18
5	27.17	155	18+

## **D. Knowing What To Expect <sup>(1)</sup>**

Preparing a marina and boats for a hurricane means defending against wind, rain, waves, and high water; all in proportions rarely experienced. Damage is usually due to a combination of factors.

### **SURGE**

The damaging influence of high water, or storm surge, is often underestimated in preparing a marina or a boat for a storm. Storm surge raises the water level far above normal high tide, cutting off roads, forcing evacuation, and lifting boats above their docks and pilings. Surge accounts for major damage because it puts docks underwater as the boat tries to float above.

Surge is the result of several factors. Due to low barometric pressure, the ocean surface is drawn upward forming a mound about one foot higher than the surrounding ocean. Large swells generated by the storm reach land first, while storm winds drive water towards the coast. As the storm makes landfall, water levels 10 to 20 feet above normal high tide are possible. Surge is responsible for extensive flooding and much of the loss of life that accompany a hurricane. Dangerous high tides can reach outward 20 to 50 miles from the storm's center. Surge makes extra length and positioning of dock and mooring lines critical.

### **WIND**

A hurricane, of course, brings high winds. Wind speeds of 70 to 130 mph are common, and winds of over 200 mph have been recorded. What may be less understood is the force created by such winds. When wind speed doubles, the wind pressure quadruples. When the wind speed increases, the damage it causes increases at a much greater rate. This illustrates the importance of reducing a boat's windage by removing as much rigging, canvas, and deck gear as possible, and facing the bow toward the greatest exposure.

### **WAVES**

Waves in the ocean have tremendous energy and can reach mountainous heights. But even in relatively small harbors, sounds, and lakes, waves can build to surprising heights. In a hurricane, it is not unusual for steep, breaking waves three to six feet high to pound normally peaceful harbors. Sea walls, barrier beaches, and other structures that normally protect docks and moorings are submerged by the storm surge. This has the effect of greatly extending the "fetch", or distance, over which the wind can generate waves.

## **RAINFALL**

Rainfall of 6 to 12" within 24 hours is normal during a hurricane with extremes of 24" having been recorded. A hurricane that struck Puerto Rico in 1928 is estimated to have dumped over two and a half billion tons of water on the island. Boats that are spared the worst high water and wind still can be sunk by the torrential rain. Cockpit decks are seldom 100% water tight; and the ability of a bilge pump and battery to handle rain accumulation is greatly overestimated. Deck drains and pump discharges located near the waterline can backflow when waves and rain put drains under water.

## **TORNADOES**

Tornadoes are sometimes spawned by hurricanes. Of the 46 people who died during Hurricane Carla in 1961, 11 were killed by tornadoes. Little can be done to protect a boat from a tornado. The possibility of a "twister", however, is a strong reason for you, your family, and your boat, if it is trailerable, to be far from the coast when a hurricane makes landfall.

### **E. Estimating Storm Force at your Location**

Marina location relative to the path of the hurricane will determine the force and damage you may expect. Plot the storm path from National Weather Service Reports. Hurricane winds run counter-clockwise, and the greatest wind speed, tidal surge, and heaviest rainfall will be to the right of the storm's eye when looking in the direction of its path. Depending on the storm's intensity, the maximum tidal surge will be 15 to 20 miles to the right of the eye.

The left quadrant of the storm as you look in the direction of its path has less force than the right side, but is still dangerous. Should the storm pass directly overhead, you will experience winds reducing to minor gusts within the eye until the "back side" of the hurricane arrives. When this happens, the winds will reverse direction and will be at or near the intensity experienced on the front side of the storm. It may take as long as 30 minutes for the eye to pass. Remember to anticipate a change in wave direction and reduced water depth when the backside of the storm arrives.

1. Source: BOAT/U.S. Marine Insurance Damage Avoidance Program

# PREPAREDNESS GUIDELINES FOR FLORIDA HURRICANE MARINAS

## SECTION II

### Marina Policy

#### A. Marina Management Issues Regarding Hurricane Preparedness

Summarized here are marina liability and economic issues of concern to industry management nationally and on the Florida coast. The intention of this section is to bring attention to the issue. More on how to address the issue is contained in subsequent sections of this manual.

- **Marina Insurance Considerations:** Marina insurance is normally underwritten with consideration to fire, casualty, liability, and associated hazards. Be aware that storm and flood damage is usually considered, but not as well defined and, in general, depends on the marina location and local topography. The normal insurance coverage for fire, casualty, liability, etc. is available from many underwriters who may or may not provide flood or wave damage insurance. Insurance coverage for damage associated with high winds and flooding may be only partially incorporated within flood insurance.
- **Boat Owner Insurance:** The declaration & condominium rules and regulations of the association require each unit owner to have a comprehensive boat insurance policy.
- **Avoid "Bailment":** A bailment is a legal relationship between persons arising when one delivers personal property to another in trust for specific purpose with the understanding the property is to be returned or otherwise properly accounted for.
- **Mandatory Wet Slip Evacuation:** Both boats and the marina will suffer less damage if boats are not left tied to docks during a hurricane. However, lessons learned from hurricane disasters in other states clearly indicate that mandatory evacuation requirements can lead to human safety issues and liability to the

association. Consensus is to make it clear to boat owners that their boats will have a better chance at survival if evacuated and give them information and assistance to encourage the decision to voluntarily evacuate. Remind Lessee's of their interest in avoiding damage to the association that could affect the availability of a place to dock and the future cost of slips.

- **Dry Stack Evacuation:** It is preferable that boats are evacuated by trailer. Hurricane history indicates that unloaded racks systems will fare better. Your boats will have a better chance at survival if evacuated. Some dry stack operators feel that if boats are left in the racks they should be tied down. There is no consensus here and whether or not tying down is preferable depends on many factors, such as rack design, if the system is closed, and if manpower is available.

## **HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS**

### **SECTION III**

#### **Initial Marina Management Planning for Hurricanes**

The initial planning phase must occur prior to hurricane threat – preferably well before hurricane season. Preparing a marina for an approaching hurricane is a formidable task and will be performed under duress – not a time for last minute planning. These are advance-planning steps:

##### **A. Evaluate the Marina Protective Characteristics and Damage Potential**

The following are facility and location characteristics to consider when preparing for a hurricane:

- Marina elevation above sea level.
- Possible direction and size of waves, and wind exposure.
- Predicted surge levels. (Storm Surge Inundation Zones from the Sea, Lake, Overland Surge from Hurricanes or SLOSH models).
- Potential flooding from upland.
- What are potential storm effects on the marina? Predict potential protected areas.
- Determine the availability of "hurricane holes", plus distance, protection of route, and estimated anchorage capacity.
- Assess adjacent upland damage potential; consider structures, utility corridors, topography, vegetation, etc.
- Assess structural aspects of and damage potential to docks and piers: piling size and type, type of docks and direction of slips, wood or concrete, cleat sizes and strength, berth layout, seawall protection, etc.
- Assess bottom characteristics, depths, and estimates of holding capacities.
- Assess structural aspects of and damage potential to buildings, including dry racks
- Assess shut off and/or disconnect mechanisms for utilities (overhead lines, exposed water, electrical and fuel lines to docks).
- Finally, determine how safe the location is for marina employees and customers, the location of the nearest shelter and the evacuation route.

## **B. Evaluate the Marina Fleet**

What can you expect in terms of storm readiness of individual vessels and how might the association be impacted if all or part of the fleet is left tied to the docks during a hurricane.

- Potential transient traffic expected.
- Inventory occupant types - power, number, size, etc.

- Identify boats with local and absentee owners.
- Evaluate evacuation and anchoring capability of each vessel.
- Identify vessels that may be hauled, either at the marina or elsewhere.
- Determine which boats may not evacuate.
- Identify dry storage boats that will evacuate via trailers.
- Identify windage or other problems for each vessel, should it be left in the marina.

### **C. Evaluate and Define the Association Employee Instruction Program**

Association employees will ultimately carry out the majority of the Hurricane Preparation Plan. To do so effectively and safely they must be well informed and well trained. Keep in mind that they have families and personal property to prepare also. Employees require the following items of instruction:

- Develop a written Hurricane Preparation Plan tailored to the association and communicate the plan.
- Describe exactly what is expected in case of a hurricane threat (reporting and attendance requirements – before, during, and after the storm, storm duties, association personnel evacuation procedures, allowances for preparing family and home, etc.).
- Specify the chain of command.
- Outline timetables for storm preparation and cleanup.
- Provide specific training for assigned storm preparation duties, e.g. securing dry rack or wet slip boats, office equipment and equipment, etc.
- Provide associated emergency training, e.g., CPR, fuel spill, fire, etc.

### **E. Evaluate Your Current Hurricane Preparedness Plans**

Establish a Hurricane Preparedness Plan review schedule to periodically. Make plan revisions to include new procedures or equipment that makes the plan better and more complete. The best way to evaluate your plan is to test it.

### **F. Prepare a Hurricane Preparedness Kit**

The materials and equipment needed to prepare the marina for a hurricane should be purchased prior to hurricane season. Establish a secure location(s) for the "kit", determine which employees will have access to the kit and require those employees to provide management with a kit inventory report at specified intervals during the season. Some items may be kept as marina retail inventory – at emergency supply quantities.

## **HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS**

### **SECTION IV**

#### **Marina Hurricane Preparedness Plan**

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#### **HURRICANE PREPAREDNESS PLAN**

**For**

**Sanibel Harbour Yacht Club**

(Distribution: marina personnel, boat owners and volunteers)

May 2006

#### **A. Introductory Comments**

The order of priority when preparing Sanibel Harbour Yacht Club for a hurricane is (1.) Protect human life, (2.) Seek to prevent or minimize personal injury, (3.) Reduce the exposure of property to damage, (4.) Minimize damage to property that cannot be relocated and (5.) Seek to restore normal operations as quickly as possible. Having a workable plan in advance and being able to implement the plan in a timely and effective manner is the key ingredient in achieving these prioritized goals.

The most dangerous and most critical task is securing boats, which may move about and damage the association and other boats. The association is not a viable sanctuary for boats of any type during a direct hurricane hit. Experience has proven that marina docks and boats are most likely to survive a hurricane if all boats are evacuated. The wet slips and dry racks are not designed to accommodate boats during heavy winds and/or storm surge. These elements tend to push and pound boats against pilings, docks, and other vessels. The floating docks may rise over the tops of piling and become adrift. Dry racked boats are in danger of being moved by wind or being lifted into racks above with tide surge. Increased weight of water-filled boats could collapse the rack system. The management of Sanibel Harbour Yacht Club strongly encourages evacuation of all boats in wet slips and dry storage.

Of course, circumstances may prevent evacuation of some boats. This plan, in addition to describing evacuation procedures, outlines best practices for securing boats in the association. The plan also describes procedures for communicating and carrying out hurricane response for all other aspects of the association – before, during, and after the storm.

Preparing for a hurricane successfully depends on how early and how orderly we all act - although chances may be great that the storm will not hit us. Remember - wet slips must be evacuated. We must be well into preparation procedures during the U.S. Weather Service Hurricane WATCH Phase. All boats must be secured by the time a hurricane WARNING is issued, our actions must occur as much as 24 to 36 hours prior to an Emergency Management Agency call to evacuate the area and at least 24 hours prior to storm landfall.

Previous storms have taught us that dry rack boat tie-downs, especially, must begin soon and be completed methodically. Trailering or moving boats to wash racks for securing of contents must be terminated early in the "watch" phase to allow marina personnel to secure the facility and evacuate the area. Marina management will conduct an annual survey of all dry storage customers to assess how many own trailers and whether they would evacuate prior to the hurricane watch phase. Marina personnel only will conduct tie-down. Boat owners must understand that boats will not be untied once secured.

Early action depends, of course, on early storm threat notice. Association personnel and boat owners are encouraged to be aware of tropical weather conditions and to immediately report any storm news to their supervisors.

This Hurricane Preparedness Plan outlines the procedures Sanibel Harbour Yacht Club will follow throughout hurricane season and during hurricane watches, warnings, as well as during and after a hurricane. Association members are contractually required to be familiar with this plan.

Timetables for implementing the various stages of the plan will depend on the storm's forward speed/direction, probability of a storm hit, and the expected intensity of the storm. Our hit with Hurricane Charlie illustrated that timetables must be built with flexibility. We will, of course, coordinate our timetables with those of the local Emergency Management Agency.

Be aware that these Hurricane Preparedness Plans may work only for lower category hurricanes. Certainly, a Category II or stronger storm at this location will result in major damage to the boats and association facilities. We prepare in order to limit the damage or in hopes of a "near miss". For a major storm our efforts may or may not be adequate - but the job must be done quickly in order for all personnel to evacuate to safety. Remember - to attempt to secure boats while under storm influences is at the risk of the lives of association personnel, boat owners, and volunteers. An approaching hurricane is a potential killer - the inconveniences of early action are a small price to pay for safety.

## **B. Hurricane Information**

Association employees and boat owners should take the time to learn about hurricanes. Storm formation, the history of hurricanes on the East Coast and hurricane preparation is a fascinating subject. An in depth understanding will not only make you more valuable to the association and boat preparation efforts - but may save the lives of you and your family.

## **C. Sanibel Harbour Yacht Club Hurricane Preparedness Plan**

Condition	Activities
<b><u>Preseason</u></b>	Review and revise plans, lists, and inventories. Generate customer awareness and conduct employee training.
<b><u>Condition 5</u></b>	Normal operation. Monitor weather and continue hurricane awareness – ensure all parties have updated plans.

Season Starts (June 1)	
<b><u>Condition 4</u></b> Storm in Vicinity	A storm has developed and could pose a threat to Florida. Assemble Leaders of the Hurricane Response Team to evaluate threat and review Hurricane Plan.
<b><u>Condition 3</u></b> 72 – 48 Hours to Landfall by the Hurricane Eye	A storm is threatening. Activate the full Hurricane Response Team. Begin implementation of Hurricane Preparedness Plan.
<b><u>Condition 2</u></b> 48-36 Hours to Landfall by the Hurricane Eye	A hurricane may strike within 36-48 hours. Complete securing of marina and boats. Hurricane WATCH has been issued by the National Hurricane Center and the County Emergency Management Agency probably recommends voluntary evacuation of islands and other low-lying areas. Determine association closing and employee evacuation schedule. Establish limited entry.
<b><u>Condition 1</u></b> 24 Hours to Landfall by the Hurricane Eye	High probability of strike. Hurricane WARNING has been issued by the National Hurricane Center. Evacuation should be completed.
<b><u>Condition 0</u></b> Hurricane Conditions	Winds and flooding could stop further evacuation efforts.  Hurricane Response Team maintains communication if possible.
<b><u>After the Storm</u></b> Return and Recovery	Reestablish communications. Conduct search, rescue, damage assessment, salvage, and cleanup.

#### **D. The Hurricane Response Team**

Association management recruits the Hurricane Response Team (HRT). It is involved in all phases of hurricane preparation at the association and is recruited by Association management. The purpose of the team is to help develop and implement the association Hurricane Preparedness Plan, thereby maximizing human safety, while minimizing damage to the association and boats. The HRT includes association employees, boat

owners and other volunteers. HRT members, representing both association and boat interests are in the best position to help educate other employees and boat owners – resulting in maximum acceptance and compliance with the plan. The Hurricane Preparedness Plan is premised on full cooperation of all employees and association members to act according to the plan.

Hurricane Response Team Leadership:

1. Board President – Peter Mazzagatti
2. General Manager – Chad Edmonds
3. Harbour Master- Javier Rodriguez
4. Fort Myers Police/ Fire Department
5. HRT Team Leader- Jeremy Larson

## **E. Sanibel Harbour Yacht Club Management Policy Regarding Hurricane Preparation**

### **Association Employees**

Hurricane Response Team membership includes all association employees. Unless instructed otherwise, association employees will answer to the appropriate supervisor listed above during hurricane response.

There will be no excused absences once the association is in Hurricane Condition III (a storm is in the vicinity). It is uncertain how long crewmembers will be required to be on duty during storm preparation. Therefore, at first notice of a storm there will be staggered relief shifts to allow each person time to go home to prepare their homes and families. This will be done well in advance of anticipated storm effects (as much as 2-3 days in advance) .

Each employee must have a plan prepared for his/her personal preparation and evacuation in order to effectively reduce his/her required leave time, so other crewmembers can have adequate leave time. The association manager will schedule leave time, with team leaders going first, in order to return to preparations as soon as possible.

### **Association Responsibility**

The association is not responsible for damage to any boat from storms or any other act of God. In the event that a boat is likely to cause bodily harm, loss of life, or damage to property; for example, on fire or sinking, the association reserves the right to take any prudent action necessary to ensure the safety of its customers, employees or property. Any costs incurred in doing so will be charged to the boat owner.

## **Hold Harmless Agreement**

The boat owner holds the association harmless for accidental damage caused when the association takes prudent emergency action before or during a storm and for salvage work done by the association or salvage contractors. Emergency storm preparations and salvage operations include any activity which association management deems necessary to protect persons from injury or property from damage, other than intentional acts that clearly increase the potential for damage to the lessee boat.

## **Wet Slip Evacuation is Strongly Advised**

Both boats and the association will suffer less damage if boats are not left tied to docks during a hurricane. However, lessons learned from hurricane disasters in other states clearly indicate that mandatory evacuation is nearly impossible to conduct. Also, mandatory evacuation requirements can lead to human safety issues. The association wishes to make it clear to boat owners that their boats will have a better chance at survival if evacuated. Remember that it is in everyone's best interest to avoid damage to the association - damage to the association could affect the availability of a place to dock and the future cost of slips.

Notice to evacuate wet slip boats will be the decision of the Hurricane Response Team according to guidelines in this Hurricane Preparedness Plan. The association manager will issue the call to evacuate. The association will not evacuate boats unless that becomes the prudent and necessary safety action. Evacuation is not mandatory, but strongly advised. Evacuation must be done early enough to allow wet slip boat owners time to safely and properly anchor their boats and to return.

We hope to provide information and assistance to encourage the decision to voluntarily evacuate. Association management will work to increase the boat owner's knowledge and comfort level for evacuating.

## **Dry Stack Evacuation is Strongly Advised**

Evacuation of the dry racks by trailer is the safest course of action for your boat. Hurricane history indicates that unloaded racks systems will fare better. Association management feels that if boats are left in the racks at Sanibel Harbour Yacht Club, they should be tied down – although conditions or circumstances may prevent doing so. The association assumes no obligations in tying or otherwise securing dry rack boats. This is a time consuming and dangerous task. Any attempt to tie down boats must be completed before foul weather. Boat owners must be aware that, there will be an announced cut off time after which loading on trailers will cease in order to complete the tie down process.

## **Boat Handling Ceases When Winds Reach Sustained Speed of 25 Knots**

Launching, recovering, or otherwise handling a boat is unsafe when wind speed reaches 25 knots. Forklift operations will cease at that time.

### **Command and Notification System**

Association management will assemble a Hurricane Response Team as an advisory panel to assist in improving the hurricane plans. The group will assist in implementing the plan during a storm threat. The association manager makes the final decision on all policy and procedure. Recommended by the HRT. Notification of policy is in 3 forms: (1) the annual lease Contract, (2) posted Regulations, and (3) this Hurricane Preparedness plan. Notification of changes will occur by mail, 30 days prior to implementing change.

### **Safety Consideration**

The overriding consideration in hurricane preparation and decision making in the association Hurricane Preparedness Plan is the safety of employees and boat owners. Preventing damage to property is secondary to human safety.

### **F. Sanibel Harbour Yacht Club Hurricane Plan – Preseason**

During "Preseason", prior to June 1, when hurricane season begins each year, there is no hurricane threat. This is the time to review the association Hurricane Preparedness Plan and update or revise it, as necessary. The association crew will receive hurricane training. The association will be inspected, and housekeeping and maintenance will be done with storm readiness in mind.

#### **Responsibilities in Preseason are:**

##### Association Manager

- Reassess association emergency procedures policy
- Review the association lease agreement to ensure clarity of lessee liability for property damage and personal injury. Specify that vessel owners will be billed for services and materials necessary for preparation, response, and recovery.
- Contact the County Emergency Management Director each spring to review:
- Overall disaster plan.
- Emergency assistance communications.
- Wet slips evacuation concerns, considering such factors as: severe weather, boat evacuation routes, safe harbors, etc.

- Regional map of the association's location with respect to storm surge, flood plain, wind damage potential, evacuation routes, and bridge locations.
- Review and update the detailed map of the association showing locations of: utility equipment and power shutoff points; sources of auxiliary power; potential hazard areas such as from fallen objects, trees, poles, etc.; emergency equipment and supplies; communication equipment; first aid stations; and escape routes.
- Identify items for evacuation in each department of the association (Department managers to develop check lists)
- Review, revise Hurricane Preparedness Plan as necessary
- Review membership of the HRT and fill any vacancies
- Remind boat owners of responsibilities during hurricane season (letter prior to June 1)
- Hold Hurricane Preparedness Plan training for association personnel, HRT, and volunteers.
- Emphasize cross training. Each person will have tasks as assigned in their own work area, but must be prepared to assist elsewhere when necessary.
- Supervise /inspect all areas of the association for pre-hurricane season safety, housekeeping, repair and maintenance. Correct problems immediately!
- Review listings for repair and salvage companies. Pre-qualify companies with references, proof of insurance, performance bonds and releases.

#### Hurricane Response Team

- Review Hurricane Preparedness Plan (as revised for current year)
- Assist association manager with repair and maintenance inspection program.
- Update hurricane contact lists and distribute among HRT:
- Agency and storm forecast emergency numbers
- Association Employees, wet slip and dry rack customers (See Communications Coordinator)
- Materials and service vendors and contractors.

#### Communications Coordinator

- Organize and train a communications team. Include the Store Manager on this team. Be aware that communications is the key element in successfully carrying out the Hurricane Preparedness Plan. The

communications team has the responsibility to make equipment available and to make certain that communication takes place between association management, the HRT, the various association departments, and boat owners.

- Plan a communication system with boat owners, including name, address, and telephone number of designated caretakers in the event they are out of town during hurricane season.
- Update employee emergency contact list
- Post and maintain a phone number list to include: Emergency Management Agency, insurance agent, pre-qualified repair and salvage companies, utility companies, fire department, police and Marine Patrol, rescue service, hospital, and employees
- Inventory association handheld radios and weather alert radios

#### Dry Storage Boat Owners

- Review your boat liability insurance policy. The boat owner can be liable for damages caused by his boat.

#### Wet Slip Boat Owners

- Review your boat liability insurance policy. The boat owner can be liable for damages caused by his boat

#### Association Operations – Office

- Conduct pre-hurricane season housekeeping
- Obtaining transportation (rental trucks, trailers, etc.) for evacuating association materials and equipment for each department. Develop a listing of rental agencies to call.
- Obtaining off-site rental storage if necessary

#### Association Operations – Dry Storage Manager

- Conduct pre-hurricane season housekeeping, repair and maintenance of dry storage facility
- Inspect and service rack system, doors and building
- Inspect and service outside/wash racks
- Inspect and service hauling equipment (forklift, high reach, zambonee, etc.)

- Inspect and clear storm drains

#### Association Operations – Wet Storage Manager

- Conduct pre-hurricane season housekeeping, repair and maintenance of wet slip facilities and equipment

#### Association Operations – Ships Store Manager

- Conduct pre-hurricane season housekeeping, repair and maintenance of store and related retail areas
- Participate in planning and training sessions with Communications Coordinator
- Inventory hurricane response kit(s) - replenish as necessary

### **G. Sanibel Harbour Yacht Club Hurricane Plan – Condition 5, Season Starts (June 1)**

In Condition 5, beginning June 1 when hurricane season begins each year, there is no hurricane threat. This is the time to begin conscientiously monitoring the US Weather Service Radio and the Cable Weather Station for development of tropical systems. We will continue to heighten hurricane awareness and intensify pre-storm readiness.

#### **Responsibilities in Condition 5 are:**

##### Association Manager

- Monitor weather forecasts
- The association will use two sources of weather information to trigger Condition 4:
  - a. National Weather Service/NOAA

##### b. County EMA

- Review membership of the HRT and fill any vacancies
- Convene HRT for an inspection of the association and boats for hurricane readiness
- Meet with managers of each department and association office to develop a prioritized list of equipment, records, stock, etc. for evacuation. Mark

these items for quick identification and prepare a checklist. Consider the value of the item to getting business back in progress after a hurricane.

### Hurricane Response Team

- Continually monitor weather forecasts
- Assist association manager in a full facility hurricane readiness inspection
- Work with association management to prepare and conduct hurricane preparation clinics and drills to instill a high degree of hurricane awareness and readiness among boat owners.

### Communications Coordinator

- Develop assignment sheet for association handheld radios to issue to employees and volunteers
- Assemble/train team of 3 (with backups) for the emergency call network (In addition to store manager)

### Dry Storage Boat Owners

- Prepare your boat evacuation plan – file it with the association [*Note: Refer to Questionnaire at Appendix B*]
- Make your boat and trailer evacuation ready
- If you have no trailer, keep your boat ready for storms, by keeping the bilge plug pulled and canvas down
- Review your boat insurance policy with your agent keeping association contract requirements in mind

### Wet Slip Boat Owners

- Response Team
- Prepare your boat evacuation plan – file it with the association as [*Note: Refer to Questionnaire at Appendix B*]
- Make your boat evacuation ready.
- Practice your evacuation and storm preparation plan
- Review your boat insurance policy with your agent keeping marina contract requirements in mind

### Association Operations – Office

- Update the office equipment and records evacuation plan. Mark items for quick identification at evacuation. Records to remove:

1. Lease Roll

2. Cash register receipts & records

3. Inventory records

4. Customer's contracts

5. Budget and planning records

1. Association Managers files

6. Computer, software and backed up files

- Meet with managers of each department to determine materials and equipment to be evacuated and determine transportation requirements
- Determine who will drive rental trucks and pull loaded trailers. Submit plan to association manager for approval.

Association Operations – Dry Storage Manager

- Review files for dry storage "Boat Owner's Hurricane Readiness Questionnaire – follow-up to obtain information as necessary
- Check repair and/or replace all rack tie down lines

Association Operations – Wet Storage Manager

- Review files for wet storage "Boat Owner's Hurricane Readiness Questionnaire – follow-up to obtain information as necessary
- Check and tighten dock cleats and pile guide fastenings

Association Operations – Ships Store Manager

- Double check Hurricane Kit inventory
- Update plan (checklist) for evacuating and securing store stock
- Update "last minute order checklist"
- Prepare and sell "Hurricane Preparedness Kits" for boat owners

## **H. Sanibel Harbour Yacht Club Hurricane Plan – Condition 4, Storm in the Vicinity**

In Condition 4 there is a tropical depression, tropical storm, or hurricane within a 1,200-mile radius of the association. This is the time to assemble the Hurricane Response team to evaluate the threat to the area and to develop a preliminary action timetable for this particular storm.

All association employees are to make contact with their supervisor. Plan to be called to duty at or before Condition 4.

Be aware that progression from Condition 4 to Condition 0 – hurricane in progress, can happen swiftly!

### **Responsibilities in Condition 4 are:**

#### Association Manager

- Schedule and conduct meetings with HRT to determine threat potential and action timetables
- Meet with Communications Coordinator and volunteer team to review Communications strategy and requirements.
- Meet with each marina department head to review Communications strategy and requirements.
- Review list of pre-selected equipment and records to be evacuated in each department
- Confirm with association office readiness to secure rental trucks for evacuation
  
- Meet with dry rack and wet slip managers and review "Boat Owner's Hurricane Readiness Questionnaire on file for each boat. Obtain updates from boat owners as required
- Determine the number of absentee boat owners expected
  
- Schedule association crew for storm duties. Include "shore leave" for crew to prepare homes and families
- Coordinate securing association facilities, equipment, and boats
- Delegate supervision of volunteers. Assign HRT member for follow-up on each.

#### Hurricane Response Team

- Evaluates the storm threat potential by plotting the advance and assessing weather reports.
- Determines a timetable for action for this particular storm.
- Initiate notification of wet slip boat owners
- When the storm is perceived as a threat, the HRT activates Communications.
- Provide uniform written statements to the Communications Coordinator on storm position and any activation timetables

#### Communications Coordinator

- Assemble members of the communication team for briefing on the storm as advised by the HRT
- Disseminate only information from the HRT, as approved by association manager, regarding the storm to maintain standard information and to minimize confusion.
- Keep a list of persons not reached on the first call and continue to repeat this call list
- Log each call made notifying boat owners (record message, time of call, recipient of notice or no answer)
- Distribute handheld radios as advised by association manager
- Perform initial communications regarding the storm and status of preparedness plan implementation to association employees, volunteers and boat owners as directed by the association manager
- Conduct telephone alert of volunteers.
- Begin maintaining "storm notice posting" at the association office. Post storm information on bulletin board outside of store (to reduce the traffic of curious on-lookers in the store).

#### Dry Storage Boat Owners

- The association recommends that the "Boat Owner's Hurricane Readiness Questionnaire is current and complete and on file at the association
- Make final readiness checks on your boat trailer and on your towing vehicle

#### Wet Slip Boat Owners

- The association recommends that the "Boat Owner's Hurricane Readiness Questionnaire is current and complete and on file at the association

- Keep an adequate inventory of storm gear aboard and maintain dock and anchor lines of proper size and condition.
- Check your primary and alternate evacuation anchorages – reevaluate your evacuation plans.
- Adhere to the association dockage contract provision that all boats must be able to get underway under its own power.

#### Association Operations – Office

- Meet with department managers to assist with preparing items for evacuation
- Place tentative order for lease evacuation transportation and storage units

#### Association Operations – Dry Storage Manager

- Perform storm readiness inspections on area and equipment
- Assemble rack tie down crew and begin moving boats that will not be evacuated to intended securement sites

#### Association Operations – Wet Storage Manager

- Perform storm readiness inspections on area and equipment
- Thoroughly inspect floating docks and piers for potential problems. Pay special attention to areas where wave action will be severe
- Ready extra line, chafing gear and fendering.

#### Association Operations – Ships Store Manager

- Perform storm readiness inspections on area and equipment
- Distribute Hurricane Kit Supplies as directed by association manager
- Order fuel, ice, and any other necessary supply
- Mark supplies in store stock for association use to avoid depletion of stock by member demands.
- Review the checklist for merchandise, store records, and cash that are to be evacuated.

### **I. Sanibel Harbour Yacht Club Hurricane Plan – Condition 3: 72-48 Hours to Landfall**

In Condition 3, we are under a storm threat. This is the time to activate the full hurricane response team and to be well into implementation of the Hurricane Preparedness Plan. Everyone should frequently monitor radio, TV, or NOAA Weather Radio for official bulletins of the storm's progress. Also, everyone should review needs and working condition of emergency equipment, such as first aid kit, flashlights, and battery-powered radios.

All association employee leave is canceled – everyone is to report to their supervisor.

**Responsibilities in Condition 3 are:**

Association Manager

- Visit with each employee to increase his or her personal level of preparedness and to encourage prompt return to work after the threat passes
- Prepare to issue a notice that evacuation of wet slips and dry racks is recommended

Hurricane Response Team

- Evaluates the storm threat potential by plotting the advance and assessing weather reports.
- Advise manager on timing of issuing a notice that evacuation of wet slips is recommended. Do this very early in the U. S. Weather Service Hurricane WATCH stage in order that boats may be clear of the slips by the U. S. Weather Service Hurricane WARNING stage.
- Issue a notice that evacuation of dry racks is recommended early in the WATCH stage. The notice will include the deadline for access to boats in the racks. After this deadline boats in dry storage will not be loaded for trailering or moved to wash racks for securing of contents. This is an effort to eliminate untying of boats already secured and prolonging preparation efforts and association personnel hazard exposure.
- Be prepared to step preparation timetables if forward speed and intensity increase.
- As time allows, work with association crew in assigned areas with boat evacuation, rack tie down, and general facility preparations.
- Chair of HRT will report progress report hourly to Communications Coordinator.

Communications Coordinator

- Constant radio contact with association manger and HRT
- Continued efforts to contact boat owners to relay HRT messages
  
- Maintain storm information on bulletin board outside of store
- Receive and log boat evacuation or preparation information. Designate a courier to convey information to wet slip and dry rack managers by carbon copy note.
  
- Post evacuation and return shuttle information schedules, with records of who departs and who returns (assign volunteer to this)
- Notify suppliers to hold shipments until further notice

#### Dry Storage Boat Owners

- Evacuation of your boat to safety is strongly advised
- Secure your boat according to your plan
- Be aware that any costs associated with securing a boat at the association will be charged to the boat owner
- Advise the association of your intention and schedule for evacuating your boat by trailer
- Be aware that trailer loading will terminate when wind speed reaches 25 knots – or at a specified time to allow completion of association storm preparations, so plan to move early
- The association will assist only with launch and recovery as weather conditions permit

#### Wet Slip Boat Owners

- Evacuation of your boat to safe anchorage or to haul out is strongly advised
  
- Secure your boat according to your plan
  
- Act soon ...Bridges will be locked down
- Advise the association of your intention and schedule for evacuating your boat by water or to take to a yard for haulout.
  
- Anticipate that the floating docks may float off of the piling
- The association may be unusable to secure unattended boats.
  
- Be aware that any costs associated with securing a boat at the association will be charged to the boat owner
  
- Once your boat is secured, leave it and don't return once the wind and waves are up.
- Under NO circumstances should you ride the hurricane out on your boat.

### Association Operations – Office

- Secure a rental truck for evacuation of pre-selected office equipment and records.
- Coordinate materials and equipment evacuation needs for each department.

### Association Operations – Dry Storage Manager

- Alert dry rack crew to tie down schedule
- Load trailer boats for evacuation on first come, first serve basis.
- Launch boats only for evacuation by water
- Periodically check progress of all crews
- Once notice is given to secure all boats:
- Put all boats in dry racks if possible. Secure outside racks.
- PULL boat plugs and LOWER canvas. The additional weight of water in boats could collapse the rack system.
- Manager will inspect knots and plugs/canvas after crews pass. Ensure that proper knots are being used. Improper tie downs will be a waste of a lot of very dangerous work.
- Ensure crew is working with extreme caution, wearing non-skid shoes, hard hats, and safety harnesses
- Terminate work in upper racks if conditions warrant (high wind -25 Knots, rain)

### Association Operations – Wet Storage Manager

- Assist with launch and haulout
- Continue fuel dock operations
- Determine best locations for boats likely to be left in the association.

### Association Operations – Ships Store Manager

- According to the checklist, prepare merchandise, store records, and cash that are to be evacuated.
- As confusion in the stores mounts, close for retail business in order to assist with communications and to begin securing the store and contents for storm (Remain open for ice and hurricane supply items until the

situation is prohibitive) As confusion in the stores mounts, the stores will be closed for retail business in order to function as a communications base and to begin securing the store and contents for storm (Remain open for ice and hurricane supply items until the situation is prohibitive).

### **J. Sanibel Harbour Yacht Club Hurricane Plan – Condition 2: 48-36 Hours to Landfall**

In Condition 2, A hurricane may strike within 48-36 hours – a hurricane WATCH has been issued. This is the time to complete securing of association and boats. The Emergency Management Agency probably has recommended voluntary evacuation of islands and other low-lying areas by this time. Association management, in consultation with the HRT will determine association closing and employee evacuation schedule. Entry to the association is limited at this time to employees, members of the HRT and boat owners in the process of evacuation.

#### **Responsibilities in Condition 2 are:**

##### Association Manager

- Make continual checks of storm readiness preparations in all departments
- Determine security requirements as confusion mounts. Reducing unnecessary traffic at the association may require a Security Guard

##### Hurricane Response Team

- Evaluates the storm threat potential by plotting the advance and assessing weather reports.
- Be prepared to step preparation timetables if forward speed and intensity increase.
- Assist association manager in checks of storm readiness preparations in all departments

##### Communications Coordinator

- Prepare communications equipment and contact lists for evacuation
- Put pre-qualified repair and salvage companies on stand-by

## Dry Storage Boat Owners and Wet Slip Boat Owners

- Be securing your boat according to your plan as filed with the marina

## Association Operations – Office

- Back up computer files
- Print out general ledger to date
- Process And mail all outgoing mail
- According to the checklist, load office equipment and files for evacuation

## Association Operations – Dry Storage Manager

- Facilitate boat evacuation by trailer until announced deadline.
- Secure area flags, trashcans, carts, furniture, fire extinguishers, and other loose items that can be affected by wind.
- Secure dinghies, day sailors and outside dry rack boats
- Place association cart on the dinghy trailer for evacuation
- Load dry storage customer and operations files for evacuation

## Association Operations – Wet Storage Manager

- Secure area flags, trashcans, carts, furniture, and other loose items that can be affected by wind.
- Assist evacuating wet slip boats and wet slip boat owners asking to haul out.
- According to the checklist, load wet slip customer and operations files for evacuation

## Association Operations – Ships Store Manager

- According to the checklist, load merchandise, store records, and cash for evacuation. Coordinate transportation with Association Office.
- Inventory and order fuel and ice
- Consolidate frozen items into 2 freezers, if possible.
- Freeze or release live bail once pump is shut down. Do early enough to allow freezing before electricity goes off.
- Set up 12v batteries to power VHF during electrical outages.

- Carefully monitor sales of ice, batteries, flashlights, rope and other storm supplies. Retain an adequate stock for marina's use.
- Relocate merchandise that cannot be evacuated but could be damaged by flooding. Ensure that storage room doors and vents are tightly secured with plywood and plastic.
- Assist Communications Coordinator as required

**K. Sanibel Harbour Yacht Club Hurricane Plan – Condition 1: 24 Hours to Landfall**

In Condition 1, there is high probability the hurricane will strike – a hurricane WARNING has been issued. This is the time to have completed evacuation efforts. Association management will announce association closing and employee evacuation schedule. Everyone will stand by to evacuate. Entry to the association is limited at this time to employees, members of the HRT.

Everyone should continue to closely monitor radio, TV, NOAA Weather Radio, or hurricane Hotline telephone numbers for official bulletins. Follow instructions issued by local officials. LEAVE IMMEDIATELY IF ORDERED TO DO SO. Under any circumstances - leave areas that might be affected by storm tide or a stream flooding.

Anyone working on the docks or near the water is required to wear life jackets.

**Responsibilities in Condition 1 are:**

Association Manager

- Prepare to evacuate
- Account for all personnel and clientele
- Arrange for transportation.
- Make final checks of storm readiness of all departments
- Prevent unnecessary traffic at the association
- Base a decision to evacuate on recommendations from local authorities and the condition of evacuation routes.
- Evacuate customers, essential files, records, equipment and personnel when premises are secured or immediately on order from the Emergency Management Agency.

### Hurricane Response Team

- Evaluate the storm threat potential by plotting the advance, assessing weather reports and listening to County Emergency Management Agency instructions.
- Be prepared to step preparation timetables if forward speed and intensity increase
- Advise association manager on final evacuation timing
- Assist association manager in final storm readiness checks
  
- Organize post-storm rendezvous

### Communications Coordinator

- Communicate evacuation order as directed
- Communicate post-storm rendezvous
- Maintain telephone and radio operations as long as possible

### Dry Storage Boat Owners

- Stay clear of the association, unless you are a member of the Hurricane Response Team
  
- Have completed all storm preparation efforts for your boat. Complete securing home and evacuating family as instructed by the County Emergency Management Agency

### Wet Slip Boat Owners

- Stay clear of the association, unless you are a member of the Hurricane Response Team
  
- Have completed all storm preparation efforts for your boat. Complete securing home and evacuating family as instructed by the County Emergency Management Agency

### Association Operations – Office

- Evacuate office equipment and files

### Association Operations – Dry Storage Manager

- Dry rack tie-down should be completed
- Prepare a list of boats left in association and photograph each.
- Use forklift to assist with removal of heavy items from docks

- Fuel and then park forklifts at highest ground point. Park boat elevators in down position.
- Association boats: fuel and equip for trailering and evacuate when appropriate with designated vehicle

#### Association Operations – Wet Storage Manager

- Assist wet slip evacuees as required
- Stand by to position breakwater across association entrance with proper markings in place after evacuation efforts are complete
- Secure any boats not evacuated
- Prepare a list of boats left in association and photograph each.
- Lash dock boxes to cleats and wire/lock tops closed
- Secure all dock carts ashore
- Wire shut all power centers covers. Use 3" strips of wire.
- Decommission and secure fuel docks, including pump out station (Remove all oils and other inventory)
- Remove hose reels and other removable items
- Lash dispenser covers to the frames
- Seal fuel storage tanks
- Close all valves
- Disconnect ramps and pull/ secure ashore
- At last call for evacuation remove life rings and fire extinguishers from floats.

#### Association Operations – Ships Store Manager

- Collect and consolidate Hurricane Kit materials and equipment not in use
- Complete final boarding of building

### **L. Sanibel Harbour Yacht Club Hurricane Plan – Condition 0: Hurricane**

In Condition 0, we will be under hurricane influence. No boat or association preparation will occur. Concern is for personal and family safety only.

### **Responsibilities in Condition 0 are:**

Association Manager, Hurricane Response Team, Communications Coordinator, area managers and employees

- Remain in safe shelter

Dry Storage Boat Owners and Wet Slip Boat Owners

- Remain in safe shelter; do not be aboard in a Hurricane!

One of the most dangerous mistakes a skipper can make is to stay aboard during a hurricane. There is little, if anything, a skipper can do to save a boat when winds are blowing 100 mph, tides are surging, and visibility is only a few feet.

### **M. Sanibel Harbour Yacht Club Hurricane Plan – Return and Recovery**

After the hurricane has passed, everyone is advised to remain in a protected area until announcements are made on radio or TV that dangerous winds and flooding have passed. Telephone communications may not be possible. Listen to public radio broadcasts for this information (FM Channel, W. J. C. L.). Association personnel are expected to return to the association as soon as possible to begin the cleanup process and to return the association to operating conditions.

Controlling damage after the hurricane is important. This can save time and money for the association and boat owners. Someone with authority must be available to work with volunteers, owners, and insurance representatives. Security to limit access to the property. We will admit only boat owners, authorities, insurance personnel, and only contractors and surveyors on assignment. Salvage operations will be discussed with owners and their insurance companies before moving damaged boats. Calling insurers with a description of conditions at your association will help expedite removal of boats as well as the payment of salvage bills and claims.

If there have been high waters, be careful of snakes or other animals that may have gotten into buildings or other high points.

### **Responsibilities in Return and Recovery are:**

Association Manager

- Communicate with HRT and assemble at a designated time and place
- Re-enter association when cleared by authorities

- Prepare to assist in search and rescue activities
- Conduct a safety inspection and document damages photographically before permitting customers on the property. If necessary, request assistance from the Emergency Management Agency, fire department, utility companies, or police.
- Clearly mark and blockade hazard areas; be particularly careful of fallen electrical lines and leaking fuel.
- Deploy containment equipment for liquid spills
- Designate spokesperson(s) for media, insurance, and customers
- Evaluate boat condition reports as provided by wet and dry storage managers. Prepare reports for customer notification by Communications Coordinator
- Contact FL DNR CRD for any necessary permit requirements for rebuilding (refer to Coastal Marshlands Protection Act of 1970)
- Begin clean up and repair procedures only after insurance company has been contacted and legal documentation of damage has been accomplished.
- Determine the priorities for getting the association back in business – make assignments to HRT accordingly

#### Hurricane Response Team

- Assists association manager with damage assessments and planning a repair schedule
- Make recommendations for improving the marina "Hurricane Preparedness Plan" (in writing within two weeks of Hurricane)

#### Communications Coordinator

- Set up and supervise operations center, log in all arrivals and departures.
- Contact employees not returned
- Contact repair and salvage companies as directed
- Contact customers to report boat condition and when association is estimated to be open to inspect boats

#### Dry Storage Boat Owners and Wet Slip Boat Owners

- Remain clear of the association until notified.
- Review insurance policy and prepare to evaluate and report damages to insurance agency

Association Operations – Office

- Assist Communications Coordinator
- Restore offices to operation as soon as possible

Association Operations – Dry Storage Manager

- As approved by manager:
- Evaluate boats in dry storage and submit a report to manager
- Put forklift and other lifts in service

Association Operations – Wet Storage Manager

- As approved by manager:
- Evaluate boats in wet storage and submit a report to manager
- Prepare Association boat for launch

Association Operations – Ships Store Manager

- Obtain and account for emergency equipment issued
- Assist Communications Coordinator

***"We're all in this together" Captain Ahab***

I have read, understand, and agree to Sanibel Harbour Yacht Club "Hurricane Preparedness Plan".

Print name: \_\_\_\_\_, Employee \_\_\_\_, Boat Owner: \_\_\_\_ Unit # \_\_\_\_\_

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

# HURRICANE PREPAREDNESS GUIDELINES FOR Florida MARINAS

## SECTION V

### Insurance Claims

Although we have an extensive and well-thought out plan to protect the association and boats during a hurricane, it is necessary to buy insurance against loss and liability. Be aware that insurance is not a passive product. Select an agent experienced and knowledgeable in the marina business to ensure buying the right coverages. You must know the responsibilities of you and others to ensure you will collect for damages. The best advice for ensuring collection of due damages is to prepare your property against loss, damages or liability – as if you have no insurance.

#### A. Before the storm

Both association managers and boat owners should know the following:

- Where your insurance papers are
- That your policy is updated,
- What is and what is not covered,
- What your responsibilities are
- What your agent's responsibilities are
- That you have photographs of your property and inventories of equipment and contents.

#### Boats

To be eligible for storage at most marinas, boat owners must provide proof of a comprehensive yacht insurance policy. This will allow timely salvage operations and will cover damage to the boat or to damages caused by one boat to another. The Condominium Documents specifies that a boat owner is responsible for the damages his boat inflicts on another boat or to association property – *if he fails to take prudent efforts to properly secure the boat for the storm*. Know your association rules and regulations and know your responsibilities for your boat and for the association.

#### Guidelines for securing boat insurance:

- The policy should be an "All Risk", agreed hull value policy. With this policy form, causes of loss not covered must be specifically excluded in the policy

provisions. In case of a total or constructive loss, the amount old insurance stated on the declarations page is paid to the owner without deduction for depreciation.

- This policy form typically covers boating equipment normally carried for safety or navigation, both aboard and when separated from the boat and stored ashore. It should specifically extend coverage to dinghies tenders or trailers. Owners should check the specific provisions in their policies as they vary from company to company.
- Dock boxes and contents would be considered personal property in most programs and are not automatically covered in the boat policy. Owners should check to ensure exactly what personal effects are covered and if the dock box and contents are included.
- Boat owners should purchase both Hull and Protection and Indemnity (P&I) coverage. P&I is marine liability coverage.
- Coverage for the cost of removing wrecks is normally in the policy's liability section. If the boat liability is under the owner's homeowner policy, chances are there is no wreck removal coverage.

## **B. After the storm**

Once you determine you have a loss to an insured boat, the following general steps should be taken to process your claim:

- Photograph the damaged property and make a list of all damages and suspected problems. If the property is in peril, take all necessary steps to preserve the property and prevent further damage. Do not begin repairs other than that necessary to prevent further damage. Repairs to prevent further damage may include beginning clean up to remove salt, mud, sand, etc. and to flush, dry and start machinery. Hire a mechanic if necessary – this should be covered under "Sue and Labor" in your policy.
- Promptly call your insurance agent to report the claim or loss. Estimate the percentage of damage – cosmetics, wave damage, wind damage, water damage, total loss, etc.
- Contact repair companies to get estimates for repairs. You do not have to wait for an adjuster to get estimates.
- As adjuster, insurance company surveyor or independent surveyor acceptable to the insurance company will be instructed to survey the damaged property. The owner can elect to hire a second surveyor, at his own cost, to conduct an

independent survey of the property. The owner should arrange to accompany the surveyor on the initial damage survey.

- Have your inventory list, receipts, inventory pictures, pictures of damages and repair estimates ready for inspection by the adjuster/surveyor. You will need to provide both a "proof of loss" and "release/payment order".
- After conducting the survey, the surveyor files a surveyor's damage report with the insurance company, and sends a copy to the owner, if required.
- The owner files a statement of loss with the insurance company explaining what took place, when, where and why. It includes specific lists of known damages along with sketches or drawings.
  
- In case of a dispute, the owner will hire a second surveyor/adjuster, at the owner's expense, to represent the owner's side of the dispute. A third party will be designated to listen to both sides and arrive at a decision.
  
- If the owner agrees on the estimates and companies to do the repairs, the insurance company issues a check with both the repair firm and owner/mortgagee listed payees on the check.
  
- When the work is completed to the owner's satisfaction and approval, the check is co-signed and the repair firm is paid.
  
- Keep in mind that, with all the confusion accompanying the aftermath of a hurricane, the underwriters will first settle claims having all the appropriate paperwork completed.
  
- In case of total loss of a vessel, be prepared to surrender the vessel's documentation papers, original insurance policy, any remaining equipment, and the damaged vessel.

### **Remember!!**

If property is insured, and damages have occurred, a report of loss and/or damage should be made to the insurance agent and/or company as soon as possible. A telephone call will suffice to put them on notice. This should be followed up with a written notice. Provide all the details that you can on this first notice, such as:

- a. exact location of property,
- b. structural condition of property (e.g., holes in hull or floating docks),
- c. did the vessel partially sink and is the machinery and/or interior wet, etc.,
- d. are the buildings and contents flooded,
- e. must the vessel be removed immediately; if so, to what location (same for building contents).

## **Be Aware!!!**

Insurance companies will have surveyors and adjusters in the area to assist and work with their policyholders. In locations designated as disaster areas, there will be insurance teams and claims offices established. While surveyors, adjusters, company representatives, and many repair facilities will try to work with you, only you have the right and authority to determine what is to be done to or on your property. There will be many association and boat owners with damages and repair businesses will be very busy. You will have to do the necessary preliminary work quickly to get your property repaired.

Sources: Adaptations of information from Boats/US, Metro-Dade Office of Emergency Management, Houston Yacht Club Hurricane Preparedness Plan, and Beam, Cooper, Gainey and Associates – Marine Insurance Division.

# HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS

## SECTION VI Appendix A

### EXAMPLE - MARINA HURRICANE PREPAREDNESS KIT INVENTORY SHEET

Inventory Date: \_\_\_\_\_

Inventoried By: \_\_\_\_\_

Reviewed By Management (signature/date): \_\_\_\_\_

ITEM	QUANTITY TO STOCK	QUANTITY ON HAND	DATE REPLENISHED	ITEM CONDITION OK/COMMENTS
<b>SAFETY &amp; FIRST AID:</b>				
First Aid Kits				
Blankets				
Flares				
Medicine				
Barricades				
Warning Signs				
DC Powered Radios				
Sanitation Supplies				
Fire Extinguishers				
Potable Water Containers				
<b>PERSONNEL GEAR</b>				
Foul Weather Suits				

Foul Weather Boots				
Hard Hats				
Life Jackets				
Safety Harnesses				
VHF Handheld Radios				
Flash Lights & Batteries				
<b>TOOLS AND EQUIPMENT</b>				
Dock Bolt Wrench Set				
Small Tool Set				
Gasoline Powered Pump				
Hand Pump				
"Come-a-long"				
Generator w/ Fuel				
Extension Cords				
Sledge Hammer				
Hammers				
Shovel				
Pry Bar				
Ax				
Oil Spill Response Kit				
Mops, Brooms, Buckets				
Ice Chests				
Lanterns and Fuel				

Emergency Lights (DC)				
Emergency Lights (AC)				
Chain Saw				
<b>SECURING MATERIALS</b>				
Plywood, Bulk				
Plywood, Cut to Fit Windows				
Lumber (2"X4"X16')				
Rope				
Lashing Cord				
Wire Ties				
Chain				
Anchors				
Cable w/ Clamps				
Nails – Asst. Sizes				
Spikes				
Screws				
Lag Bolts				
Masking Tape				
Duct tape				
Sandbags				
Fenders and Fendering Material				
Chafing Gear				
HDuty Trash Bags (Asst. Sizes)				

# HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS

## Appendix B BOAT OWNER'S HURRICANE READINESS QUESTIONNAIRE

Use this as a worksheet to describe your boat's state of hurricane readiness and your preparation plans. Return a copy to the association office and provide a copy to your alternates (an alternate must be named for the event of your absence).

Boat name: \_\_\_\_\_, Length: \_\_\_\_\_, Model: \_\_\_\_\_, Power  
\_\_\_\_\_, Sail \_\_\_\_\_

Owner's name: \_\_\_\_\_, Address:  
\_\_\_\_\_

City: \_\_\_\_\_, State: \_\_\_\_\_, Zip: \_\_\_\_\_, Day phone:  
\_\_\_\_\_

Night Phone: \_\_\_\_\_, Other Phones:  
\_\_\_\_\_

Captain's name: \_\_\_\_\_, Address:  
\_\_\_\_\_

City: \_\_\_\_\_, State: \_\_\_\_\_, Zip: \_\_\_\_\_, Day phone:  
\_\_\_\_\_

Night Phone: \_\_\_\_\_, Other Phones:  
\_\_\_\_\_

Has boat keys? \_\_\_\_\_, Access to hurricane equipment?  
\_\_\_\_\_

Alternate #1's name: \_\_\_\_\_, Address:  
\_\_\_\_\_

City: \_\_\_\_\_, State: \_\_\_\_\_, Zip: \_\_\_\_\_, Day phone:  
\_\_\_\_\_

Night Phone: \_\_\_\_\_, Other Phones:  
\_\_\_\_\_

Has boat keys? \_\_\_\_\_, Access to  
hurricane equipment? \_\_\_\_\_

Alternate #2's name: \_\_\_\_\_, Address:  
\_\_\_\_\_

City: \_\_\_\_\_, State: \_\_\_\_\_, Zip: \_\_\_\_\_, Day phone:  
\_\_\_\_\_

Night Phone: \_\_\_\_\_, Other Phones:  
\_\_\_\_\_

Has boat keys? \_\_\_\_\_, Access to hurricane equipment?  
 \_\_\_\_\_

Boat's current location: \_\_\_\_\_, Planned location during a hurricane: \_\_\_\_\_

If at a dock: Slip # \_\_\_\_\_,

Additional lines no.: \_\_\_\_\_, Length: \_\_\_\_\_, Size: \_\_\_\_\_, Chafing gear: \_\_\_\_\_, Fenders:  
 \_\_\_\_\_

**If at a hurricane hole:**

Travel time by water from present location: \_\_\_\_\_, Are there bridges? \_\_\_\_\_, If yes, will they open prior to hurricane?  
 \_\_\_\_\_

Has owner of surrounding land been contacted? \_\_\_\_\_, How will skipper and crew get ashore?  
 \_\_\_\_\_

Type of bottom: \_\_\_\_\_, Depth: \_\_\_\_\_, Number/types of anchors needed:  
 \_\_\_\_\_

Lines needed: \_\_\_\_\_, Number: \_\_\_\_\_, Length: \_\_\_\_\_, Size:  
 \_\_\_\_\_

Chain needed: \_\_\_\_\_, Number: \_\_\_\_\_, Length: \_\_\_\_\_, Size:  
 \_\_\_\_\_

Chafing gear: \_\_\_\_\_, Swivels: \_\_\_\_\_, Shackles:  
 \_\_\_\_\_

**If stored ashore**, is boat already ashore and where? \_\_\_\_\_, If no, what arrangements have been made for hauling?  
 \_\_\_\_\_

Contact name (marina/property owner): \_\_\_\_\_, Phone number:  
 \_\_\_\_\_

**List all equipment needed to prepare boat: List equipment to be stripped from boat:**

Equipment	Current location	Equipment	Storage location
• Extra lines		• Electronics	
• Chafing gear		• Dinghy	
• Fenders		• Outboard fuel	
• Anchors +		• Sails	

Rodes			
<ul style="list-style-type: none"> <li>• Swivels + Shackles</li> </ul>		<ul style="list-style-type: none"> <li>• Bimini</li> </ul>	
<ul style="list-style-type: none"> <li>• Wire ties</li> </ul>		<ul style="list-style-type: none"> <li>• Galley fuel</li> </ul>	
<ul style="list-style-type: none"> <li>• Duct tape</li> </ul>		<ul style="list-style-type: none"> <li>• Ship's papers</li> </ul>	
<ul style="list-style-type: none"> <li>• Exhaust Port Plugs</li> </ul>		<ul style="list-style-type: none"> <li>• Insurance Policy</li> </ul>	
<ul style="list-style-type: none"> <li>• Tool Kit</li> </ul>		<ul style="list-style-type: none"> <li>• Boat inventory/Photos</li> </ul>	

<p>Diagram of proposed hurricane docking or anchoring arrangement:</p>	<p>Hurricane plan final checklist:</p> <ul style="list-style-type: none"> <li>• Arrange dock/anchor lines</li> <li>• Add chafe protection</li> <li>• Place extra fenders/fenderboards</li> <li>• Duct tape windows/hatches</li> <li>• Plugs in engine ports</li> </ul>	<ul style="list-style-type: none"> <li>• Remove bimini, sails, life rafts, etc.</li> <li>• Disconnect shore power</li> <li>• Close fuel valves</li> <li>• Close all but cockpit seacocks</li> <li>• Lock boat</li> <li>• Notify marina manager</li> </ul>
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**HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS**

**Appendix C EMERGENCY RESPONSE AGENCY PHONE NUMBERS**

<b>EMERGENCY</b>	<b>911</b>
<b><u>County Agencies</u></b>	
Emergency Management Agency	477-3600
Fire Department	334-6222
Sheriff Department	477-1200
Police Department	334-4155
US Coast Guard	463-5754
Florida Fish & Wildlife Conservation Commission	888-404-3922
Hospital	433-7799
County Public Health	332-9501
County Public Works	479-8900
<b><u>State Agencies</u></b>	
Hazardous Materials Response Team	800-564-7577
Agriculture Department	202-720-2791
Florida Environmental Protection Division	(404) 562-9900
Florida Department of Natural Resources	(888) 275-8747
Florida State Patrol	(239) 278-7100
Florida Department of Transportation	(202) 366-4000
<b><u>Federal Agencies</u></b>	

Federal Emergency Management Agency (FEMA) Hurricane Program Manager: William G. Massey	(770) 220-5430 (770) 220-5230 fax
U. S. Environmental Protection Agency	(800) 241-1754 (404) 562-9900
National Response Center	(800) 424-8802
U.S. Coast Guard – Marine Safety Office	(912) 652-4353
Chemical Transportation Emergency Center (CHEMTREC)	(800) 424-9300

# **HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS**

## **Appendix D Hurricane Preparedness Instructions for Boat Owners**

The key to protecting your boat from hurricanes or any threatening severe weather is planning, preparation, and timely action. A boat owner/ operator may be held responsible for damages caused by his vessel during a natural disaster. Normally the National Weather Service will issue 48 and 24-hour warnings; however, in some instances only a 12-hour warning will be given. The association will evaluate the storm threat and recommend evacuation accordingly. Upon receiving first storm notice, the boat owner/operator should immediately take precautionary measures to see that his 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 to be used by the marine community. The following precautions and checklists are meant as guides only. It is stressed, however, that following these guidelines does not necessarily exempt the owner/operator from being held responsible should his boat cause damage to another's property; nor will acquisition of required safety equipment and following the suggested safety procedures necessarily assure that no damage will occur to the boat.

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## **GENERAL PRECAUTIONS**

- Prior to the hurricane season, develop a detailed plan of action to secure your vessel in the association, if permitted, or 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.
- Hurricane moorings should be located in advance. Permission should be obtained from appropriate persons. For keelboats, make certain there is enough water at low tide.
- A practice run should be made to check accessibility, depth of water, bridges, location of aids and/or obstructions to navigation and locations to secure lines or drop anchors. Drawbridges will not open for boats during evacuation procedures.
- Before a hurricane threatens, plan how you will remove valuable equipment from the boat. Determine how long it will take so you will have an accurate estimate of the time and work involved.

- After you have made anchoring or mooring provisions, remove all movable 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. Seal all openings (use air conditioning duct tape) to make the boat as watertight as possible.
- Make sure the electrical system is off unless you plan to leave the boat in the water. If the boat is not to remain in the water, remove the battery to eliminate the risk of fire or other damage.
- Arrange for a reliable person to learn and carry out your hurricane plan if you are out of town during a hurricane or severe storm.
- Check your lease agreement with the association or storage area. Know your responsibilities and liabilities as well as those of the marina or storage area.
- Consolidate all documents including insurance policies, a recent photograph or video tape of your vessel, boat registration, equipment inventory, lease agreement with the association or storage area, and telephone numbers of appropriate authorities, i.e., harbor master, Coast Guard, insurance agent, National Weather Service, etc. Keep the documents in your possession in a locked water-proof box. They may be needed when you return to check on your boat after the hurricane.
- Maintain an inventory list of both the items removed and those left on board. Items of value should be marked so that they can be readily identified.

## **Trailerable Boats**

- Determine the requirement to load and haul your boat to a safer area. Be sure your tow vehicle is capable of properly moving the boat. Check the condition of your trailer; tires, bearings and axle. Too often a flat tire, frozen bearings, or broken axle prevents an 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 lightweight boats may wish to consider letting out about half the air in 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.) Consult with the manufacturer for the appropriate procedure for your lightweight boat.
- Secure your boat with heavy lines to fixed objects. Because hurricane winds rotate and change direction, try to pick a location that allows you to secure the boat from four directions. It can be tied down to screw anchors secured in the ground.

## **Non-trailerable Boats in Dry Storage**

- Determine the safest, obtainable haven for your boat and arrange 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. Based on the weight of the boat, consider adding water to the bilge to help hold it down.

- Never leave a boat in davits or on a hydro-lift.

## **Non-trailerable boats in wet storage**

The owner of a large boat, usually one moored in a berth, has three options. Each action requires a separate strategy. Another alternative, running from the storm, is not encouraged except for large commercial vessels.

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

## **Boats Remaining in Association 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.
- Cover all lines at rough points to prevent chafing. Wrap with tape, rags, 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. Turn off all other devices consuming electricity.
- Do not stay aboard. First and foremost, safeguard human life. Winds during any hurricane can exceed 100 mph, and tornadoes are often associated with these storms. In addition, when winds and seas warrant, marine agencies remove their boats from service and will not be able to rescue foolish boaters.

## **Mooring Heads**

- If your vessel is moored at a dock on a river, or in a marina near the ocean, it is possible that with an additional 5 to 10 foot or greater storm surge, the vessel could take a beating against the dock or even impale itself on the pilings.
- The best offshore mooring location for a vessel to ride out a storm is in the center of a canal or narrow river where at least doubled mooring lines can be secured to both shore, port and starboard, fore and aft.

- Do not raft vessels together at moorings or docks, especially if larger and smaller vessels are involved. The probability of damage to the vessels is greater than if they are moored separately.
- If the vessel must remain dockside at a private dock or marina, heavy duty fender boards (2" x 6") should be installed on a bare wood center piling to prevent damage. Lines should be doubled and even tripled where necessary to hold a vessel in the center of a berth or off seawall or dock pilings. Preventers should be installed at the top of the pilings so lines cannot slip off the top. Note that nylon line will stretch five to ten percent of its length.

**Don't go down with your boat! Do not stay aboard.** Winds during any hurricane can exceed 100 mph and tornadoes often are associated with these storms. First and foremost, safeguard human life.

Source: Fact Sheet DH 12 (1993), Florida Cooperative Extension Service, University of Florida, Gainesville, FL 32611.

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## **HURRICANE PREPAREDNESS GUIDELINES FOR FLORIDA MARINAS**