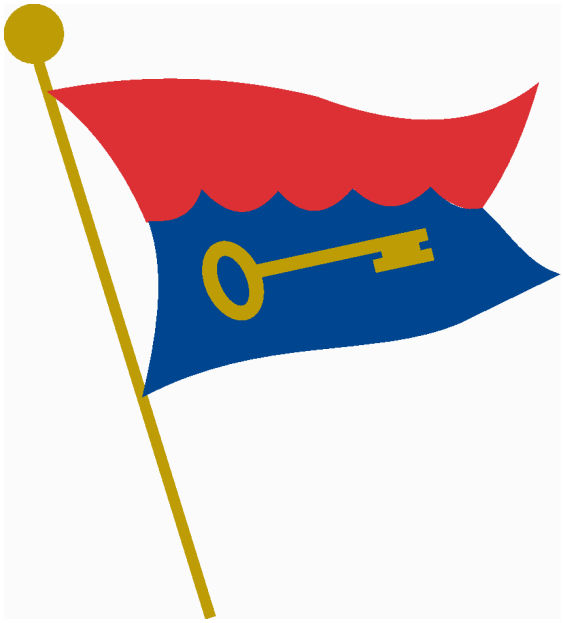
KEY LARGO ANGLERS CLUB



Hurricane Preparedness Plan

Version 3.0 July 2012

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Plan Activation

Implementation of this plan is automatic with the declaration of a local emergency. The policies and procedures contained in the plan may be implemented as necessary while the declaration is considered.

Management will maintain direction and control until the expiration of the emergency.

EMERGENCY PHONE NUMBERS

American Red Cross			**Florida Keys Aqueduct Authority**		
Key West	296-4033		Lower Keys	296-2454	
Key Largo	852-9612				
State Office	888-872-5663		**Public Works Monroe County**		
Miami	644-1200		Plantation Key	852-7161	
Emergency Management Office			**Rumor Control Monroe County**		
Marathon	289-6018		Entire Area	800-955-5504	
EOC Hotline	800-955-5504				
			Florida Keys Electric Coop		
Emergency Services			Tavernier	852-2431	
FHP	292-6712				
Marathon	289-2300		**Municipalties**		
FWC	289-2320		Key West	809-3888	
			Key Colony	289-1212	
FL Dept. of Transportation			Layton	664-4667	
Marathon	289-2350		Ocean Reef	367-2611	
			Monroe Co. Gov.	294-4641	
Public Health Department					
Key West	293-1741		**Monroe County Sherriffs Office**		
Tavernier	853-3240		Entire Keys	800-273-2677	
Monroe County	293-7500				
			Fire Departments		
Social Services Emer Trans.			Key Largo	451-2700	
Key West	292-4408		Monroe County	294-9419	
Marathon	289-6016		Ocean Reef Public Safety	367-4357	
Plantation Key	852-7125				

EMERGENCY PHONE NUMBERS

United States Coast Guard			**FBI**		230-0142
Key West		292-8700			
Search and Rescue		292-8727	**Police Departments**		
Marathon		743-6778	Florida City		247-8223
Islamorada		664-4404	Homestead		247-1535
Non Emergency		664-8078	Miami		579-6111
			Plantation		853-3211
Emergency Operations Center			Marathon		289-2430
Ocean Reef		367-2222			
			Florida Highway Patrol		
Hospitals			Marathon		853-3200
Homestead		786-243-8000			
Florida Keys		294-5531			
Fishermans		743-5533	**State Warning Point**		
Mariners		852-4418	Emergency		800-320-0519
			Non Emergency		413-9900
Card Sound Toll		247-5315			247-5315
Immigration		296-2233	**Turkey Point**		
			Warning		246-6492
US Customs & Border Patrol			Emegency		245-3135
Tony Giammillono		786-229-0013			
Alejandro Rodriguez		305-258-5550	**Waste Regulations**		372-3804
Jovien Troche		305-481-8660			
		305-481-8660			

Introduction

When there is a threat or imminent strike of a tropical system, the residents and employees of the Key Largo Anglers Club and Monroe County Municipal Services District Seven will expect an organized plan to handle the many considerations that would come with such an emergency.

It is the responsibility of the Anglers Club Security Department to insure this plan is executed to the best of our ability, in the safest, most timely fashion possible. Implementation of this plan will be under the direction of the General Manager who will delegate duties and procedures according to the club's needs.

Purpose

The purpose of this Hurricane Preparedness Plan is to establish the procedures and policies necessary to insure all aspects of the emergency operation run as efficiently as possible and to aid the members, management and staff to be better prepared for an approaching storm.

Emergency Declaration

Declaration of a countywide emergency that affects Monroe County Municipal Services District Seven will fall under standard operation procedures of Monroe County Emergency Management Office.

Declaration of a local emergency will fall under the power of the General Manager or Resident Manager of the Key Largo Anglers Club.

In response to a hurricane emergency, K.L.A.C. will strive to achieve the following:

Evacuation and shelter of the vulnerable population;

- Preservation of the club property and vital records;
- Minimize the loss of both club and private property;
- Insure that the procedures followed provide the maximum safety to the population and to the physical plant within the property.

Emergency Management

A. Mission

The text of this definition has been excerpted from the Florida Emergency Act 252.34 as follows:

252.34 Definitions [As used in F.S.> 252-31-252-60]

1. "Emergency Management" means the preparation for, and the carrying out of, all emergency responsibilities and functions, other than those for which military forces or other federal agencies are primarily responsible, to prevent, mitigate, or repair injury and damage resulting from the occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property resulting from emergencies. These responsibilities include, but are not limited to:

    a. Reduction of vulnerability of people and communities of this state to damage, injury, loss of life and property resulting from natural or manmade catastrophes or hostile military or paramilitary action.
    b. Preparation for prompt and effective rescue, care, and treatment of persons victimized or threatened by disasters.
    c. Provisions of a setting conducive to the rapid and orderly start of restoration and rehabilitation of persons and property affected by emergencies.
    d. Provision of an emergency management system embodying all aspects of pre-emergency preparedness and post-emergency response.
    e. Assistance in anticipation, recognition, appraisal, prevention, and mitigation of emergencies, which may be caused or aggravated by inadequate planning for, and regulation of, public and private facilities and land use.

2. "Local Emergency Management Agency" means an organization created in accordance with the provisions of F.S. 252-31-252-60 to discharge the emergency management responsibilities and functions of a political subdivision.

3. "Political Subdivision" means any county or municipality created pursuant to law.

Area Analysis

A. Geographic Summary

K.L.A.C. and Municipal Services District Seven are located in the Northern most section of the Florida Keys. It averages 3 to 5 feet above sea level and the majority of the area is surrounded by a mangrove type plant system.

B. Population

The estimated population of the club varies according to the time of year. The club itself has a number of seasonal residents, most of which populate the area during the months of:

October through April and All Holidays
Residents and staff on site: 35 - 200

May through September
Residents on Site: 0 - 10
Staff on site: 10 - 15

(Figures above reflect a 10% margin of error.)

C. Transportation

The major road that would be used for means of evacuation is Card Sound Road, which terminates in Florida City and is approximately 5 feet above sea level.

Response Operations

Response Sequence Overview

1. Pre-session [completed by June 1st]

    a. Review and update hurricane procedures.

    b. Inspect facilities and take necessary actions to mitigate impact of hurricanes.

    c. Provide training to employees in hurricane preparedness and personal safety. Provide additional training in operational procedures, as needed.

    d. Update department specific hurricane orientation materials and programs.

2. Hurricane season [June 1st through November 30th]

    The Anglers Club Management will:

    a. Begin coordinated tracking upon notification of a subtropical or tropical weather system anywhere within surrounding waters.

    b. Advise key personnel of storm progress.

    c. Prepare for possible landfall.

3. Releases concerning pending recommended and/or ordered evacuations will be issued by the direction of the Mayor of the Monroe County Board of County Commissioners or his/her designee, or locally by the management of the Key Largo Anglers Club. These will include:

    a. The time at which an evacuation must be ordered;

b. Existing circumstances that may have an effect on the timing of the recommended/ordered evacuation;

c. The segments of the population that will be recommended/ordered to evacuate;

d. Where evacuees will find public and special needs shelter;

e. Directions for travel to public and special needs shelters;

4. Emergency declarations and evacuation orders will be released when issued.

5. Releases containing the following information will be issued throughout the duration of the declared state of local emergency:

   a. Local weather conditions/forecasts;

   b. The tropical system update, as previously outlined;

   c. Road/traffic conditions to include;

      1. Local;
      2. Regional;
      3. State.

6. The segment of the population that has been directed to evacuate

7. The location of public and special medical needs shelters;

8. Directions for travel to public and special medical needs shelters.

Response Decisions

South Florida is one of the most hurricane vulnerable areas of the United States. The potential for large scale loss of life is significant considering the historical high frequency of hurricanes and the population concentrated in low-lying coastal areas. The county will order evacuation of threatened areas to allow residents to reach safe shelters before arrival of pre-hurricane winds and flooding.

Three factors are considered in determining the appropriate hurricane evacuation order: the size and strength of the storm, the evacuation level required, and the timing of the evacuation order.

The Storm Response

Storm Assessment

To determine the need for protective action, the official forecast is evaluated considering the forecast errors, and the storm is defined. The storm assessment worksheet is used to assist in evacuation decision making. The assessment is completed each time a marine advisory is issued. After defining the storm, the National Hurricane Center is consulted to determine if they have updated information, and as agreement is reached on the storm.

National Hurricane Center forecast

The National Hurricane Center follows a forecasting cycle in presenting information. It is important to know that the information in the advisories is four [4] hours old. The advisory issued at noon is based on radar/reconnaissance aircraft as of 0800 hours, etc.

The marine advisory issued every six hours contains the most detailed information about the storm, which includes:

The warnings give the minimum distance from the cyclone centre to a given set of wind values in each quadrant (NW, SW, SE and NE) for current and forecast cyclone locations. In NHC warnings these wind values are 34 knots, 50 knots and 64 knots.

Forecast Error

Over the past 20 years, forecasting hasn't improved significantly. The National Hurricane Center (NHC) cannot confidently predict the actual track and point of landfall.

The NHC stresses that there is error in the forecast by providing probability tables. The probabilities describe in percentages the chance that a storm's center will pass within 65 miles of a location. In analyzing the risk to Dade County, the probabilities are compared to neighboring locations and monitored to see if they are increasing or decreasing .Probabilities will follow the general pattern shown below:

Hurricane Landfall Probabilities

Hours Before Landfall	Probability Forecast
72	Less than 10%
48	13% to 18%
36	20% to 25%
24	35% to 40%
16	40% to 60%
12	60% to 70%

Forecast Error Parameters

POSITION – Position estimates can be deviate by an average of 45 nautical miles [NM] per 12 hours of time. A forecast track error of 50 NM may be used for simplicity.

STRENGTH – Strength estimates have a standard deviation of 20 knots [kts] for 24-36 hour forecast. Historically:

Hurricane Strength Forecast Deviation

Hours Before Landfall	Forecast Deviation
12	1 knot
24	16 knots
48	22 knots
72	23 knots

FORWARD SPEED – Forward speed estimates can deviate by 50%. In the Atlantic, storms average 1-20 mph, and the Gulf, 5-10 mph.

Storm Surge Estimates

Once the hurricane has been defined, the appropriate evacuation level can be determined**.** Each of the evacuation levels is defined by an average shoreline still
Water surge height accompanied by hurricane force winds. The surge heights correspond to the Hurricane Scale or higher depending on the area.

Description of Evacuation Levels

There are four evacuation levels which are dependent largely on the still water level of storm surge expected.

Evacuation Level A
0 – 3 feet still water storm surge and less than hurricane force winds. Recommended evacuation for mobile home residents and electricity dependent persons living at home.

Evacuation Level B
4 – 5 feet still water storm surge and hurricane force winds. Recommended evacuation for mobile home residents and electricity dependent persons throughout the County.

Evacuation Level C
5 – 7 feet still water storm surf and hurricane force winds. Evacuate all mobile homes and electricity dependent persons throughout the County.

Evacuation Level D
7 – 10 feet still water storm surge and hurricane force winds. Evacuate all mobile homes and electricity dependent persons throughout the County.

Hurricane Season Required Preparations

1. When possible, pre-assign emergency/hurricane duties and designate specific department members.

2. Review availability and condition of equipment such as radios, vehicles, foul weather gear, etc.

3. Review and revise if necessary designated traffic control points and pre-position locations for wreckers.

4. The PIO will review and confirm shelter locations.

5. Review emergency/hurricane planning with other law enforcement agencies, i.e.: FHP, FMP, and municipal departments.

6. Review Monroe County Emergency/Hurricane Plan.

7. Ensure that notification rosters are current.

8. Check operating capabilities of emergency generators, fuel supplies, and inventory food rations.

9. Put equipment contractors on notice or have a letter of understanding with the contractor

Hourly Breakdown of Preparations

Category II Rating or Less

60 Hours Prior to Landfall

The Anglers Club will be put into storm standby operation and prepare for upgrade in status.

Security personnel will be scheduled in the following manner:

When the plan is activated, the shift on duty will stay on for its normal time, and all other personnel will be put on 24-hour standby. If not on duty, secure home and families. On site officers will secure all loose objects in and around their apartments.

Rain gear will be issued and each individual will inspect personal protective equipment.

Notify contractors to remove all equipment from the club prior to 36 hours of anticipated landfall.

There will be a meeting**. Attendance shall be mandatory**.

All equipment will be inventoried and a master listing of all equipment shall be kept with the Maintenance Dept. at all times. All electronic equipment will be placed at a location designated by the General Manager.

The Anglers Club will notify the public via phone/email when there is a hurricane watch in effect.

48 Hours Prior to Landfall

1. Establish and maintain communications with Monroe County EOC.

2. KLAC will establish contact with all assisting agencies to find out what channels they will be monitoring for the recovery period.

3. **All days off and vacations are cancelled**.

4. Officers will tour the club and look for anything that is unsecured and make a list of any dangerous items.

2012 KLAC Disaster Subcommittee

Chris Callsen	330-656-2505	216-956-9258
Nick Lanni	513-868-2228	513-593-3285
Ken White	305-367-3937	305-394-1051

24 Hours Prior to Landfall

In these hours prior to the projected arrival of the hurricane, the “Hurricane Warning” advisory has been issued and it is highly likely that the hurricane will landfall near our area.

1. All vessel protection and securing operations should be completed with a final check of doubled mooring lines, tied off with sufficient slack and fender boards and/or other protective equipment in place.

2. The General Manager will advise the proper personnel to relocate equipment to the safe location previously designated. At this time it will be decided what essential equipment will stay to maintain necessary emergency operations. All equipment will be inventoried and then moved to the safe location.

3. The Clubhouse will be secured with proper panels in designated locations. All loose objects around the buildings will be secured.

4. Security will go through and ensure that all persons have left the area and construction sites are secured. All persons choosing to evacuate shall be off the property prior to 8 hours. The Security Dept will log residents who will not or cannot evacuate.

5. A meeting of department heads will be held to review all of the activities that are already accomplished and clear up any problems that have or may occur, also review all activities that need to be accomplished in the next 12 hours.

12 Hours Prior to Landfall

1. Emergency operations will continue with due regard for safety. The General Manager or the Resident Manager can only give the order for suspension of emergency operations.

2. All inventory lists will have been completed on equipment, vehicles, computers, radios, and other miscellaneous equipment along with the keys to the gas pumps, hand pump and VHF equipment for recovery.

3. The front gate will be secured and the equipment moved to a safe location in the maintenance building.

Immediately Prior to Landfall

1. It is imperative that no one shall places themselves in jeopardy. All Club and personal vehicles shall be secured.

2. All personnel shall refrain from taking unnecessary risks that may endanger themselves.

3. Consumption of alcoholic beverages within 6 hours of landfall is prohibited.

Evacuation

A. Purpose

This element of the response plan is written in recognition of the vulnerability to residents and guests of Monroe County Municipal Services District Seven for tropical storm and hurricane effects. It serves to provide an organized structure within which the residents and guests can receive the greatest benefit from protection taken.

B. Goals

1. Relocation of residents and guests of vulnerable areas to a place of safety.
2. Relocation of vulnerable emergency response and recovery equipment to areas of relative safety.
3. To provide, to all in Monroe County Municipal Services District Seven that do not have a source of transportation sufficient to carry them to shelter, an opportunity to evacuate vulnerable areas.

C. Strategies

Critical roadway segments in Monroe County and the components of evacuation time follow:

CRITICAL ROADWAY SEGMENTS AND INTERSECTIONS IN DISTRICT SEVEN

1. U.S. 1 from County Road 905 Intersection to Dade County Line
2. U.S. 1 and Card Sound Road
3. Signalized intersection at Florida City on U.S. 1
4. U.S. 1 through Key Largo [at signalized intersection]
5. Jewfish Creek Drawbridge
6. All Sheriff's Department control points

Evacuation Schedule

The method used to determine the evacuation time must consider the arrival of tropical storm force winds and the surge inundation of low-lying evacuation routes [pre-landfall hazard time]. It is anticipated that a portion of the vulnerable population will begin their evacuation before the official evacuation order is issued. This early evacuation is encouraged, especially for those with special needs.

A. **Initial Warning Procedures**

1. The General Manager will hold a meeting and a Plan of Operation will be reviewed by the entire staff.

2. Implement procedures pertaining to the notification of department members during the emergency situation. Members will be assigned to a team. All members of the department will be given ample time in advance to return to their residences and take care of personal property.

3. Assist in alerting the population at risk. This may be done through the use of loud speakers, house-to-house notification, public communication or other means available.

4. When a tropical storm or hurricane is within 48 hours of landing, all construction sites will be inspected and closed [except when crews are cleaning up site].

5. Where possible and when necessary, assist in the physical evacuation of persons at risk [i.e.: persons with special needs]. This will be done at 60 hours before landfall. The Ocean Reef Public Safety Department will assist any people who request assistance.

Emergency Shelters

The following is a list of shelters for District III residents of Monroe County. These shelters are only used for category I or II hurricanes.

Zone 6 [Long Key Bridge to Channel 5 Bridge]
Choral Shores High School

Zone 7 [Channel 5 Bridge to Snake Creek Bridge]
Island Christian School
Choral Shores High School

Zone 8 [Snake Creek Bridge to Key Largo, MM 94]
Plantation Elementary School
St. Justin Catholic Church

Zone 9 [Key Largo, MM 94 to MM 97]
Key Largo Elementary School
St. Justin Catholic Church

Zone 10 [Key Largo, MM 97 to Ocean Reef Club]
Key Largo Elementary School
St. Justin Catholic Church

Zone 11 [Ocean Reef Club to Mainland]
Florida International University
[S.W. 8th Street and 107th Avenue, Miami]

Monroe County Sheriff's Office Traffic Control Points

The following is a list of traffic control points for Monroe County Sheriff's Office District III:

Waldorf Plaza and U.S. 1

S.R. 905 at MM 106

Three Way Stop, South of Ocean Reef

"Hurricane Hotels"

Holiday Inn
1711 University Drive
Plantation
954.472.5600

Ramada Inn
5100 State Road 7
Ft Lauderdale
954.739.4000

Sheraton
Cypress Creek Road
Ft. Lauderdale
954.772.7770

Hampton Inn
1900 NW 150th Ave
Pembroke Pines
954.441.4242

Embassy Suites
661 NW 53rd
Boca Raton
561.482.4329

Hilton Suites Hotel
7920 Glades Road
Boca Raton
561-483-3600

Hampton Inn
1455 Yamato Road
Boca Raton
561.988.0200

Holiday Inn Express
8144 Glades Road
Boca Raton,
561.482.7070

Courtyard
2000 NW Executive Center
Boca Raton
462.241.7070

Re-Entry Procedures

The Monroe County Sheriff's Office wants to remind everyone about Hurricane Re-entry issues in the event of an evacuation order in the Florida Keys.

Hurricane Re-entry decals, color coded for different areas of the Keys, are currently available at all Sheriff's Office substations and the Sheriff's Office Headquarters building on Stock Island. They are also available from all tag offices in the Keys, Key West City Hall, Islamorada City Hall and the Ocean Reef Public Safety Communications Center. The decals will be used to identify Monroe County residents at the re-entry point in Florida City after a storm has passed. The city of Key West is issuing its own decal, which will also be honored at the re-entry point in Florida City. A re-entry decal is meant to speed up the re-entry process, but is not mandatory to re-enter the Keys. If a person does not have a decal, he or she may also present a driver's license with a Keys address, or some other proof of residency or proof of home or property ownership.

Some of the factors considered in the re-entry process will be whether or not emergency personnel, supplies and equipment have been brought in and set up, whether rescue crews have had enough time to assist any trapped or injured people in the hurricane affected area and, most importantly, whether it is judged to be safe for residents to re-enter a particular area.

The new hurricane re-entry stickers are orange in color for lower Keys residents (from Key West to the south end of the Seven Mile Bridge), blue for middle Keys residents (from the north end of the Seven Mile Bridge to the south end of the Long Key Bridge) and yellow for the upper Keys (from the north end of the Long Key Bridge to the county line, including Ocean Reef

In the event a storm devastates a particular area of the Keys, as happened during Georges, the color coded re-entry stickers will allow law enforcement to separate those residents who are traveling to relatively safe areas from those who are returning to the more badly damaged areas of the county. Depending on the circumstances, the people returning to relatively intact areas may be allowed to re-enter sooner than the others.

Some residents who evacuated during Georges complained that they had trouble finding out about re-entry to the county because rumor control telephone lines were busy when they called. To address that problem, additional phone lines have been diverted to rumor control. The Monroe County rumor control hot line number is 1-800-955-5504. When calling the rumor control number during or after a storm, however, residents need to be patient. The phones are staffed by volunteers who do the best they can to take calls quickly, and give out up-to-date information to the best of their ability. Anyone who wishes to volunteer to answer these phone lines

during a hurricane or other emergency can call the Office of County Commissioner Mary Kay Reich at (305)852-7175.

The State Office of Emergency Management also has their Florida Emergency Information Line, which is activated in the event of an emergency and which will have up-to-date information available about Monroe County if a hurricane hits. That phone number is 1-800-342-3557.

Re-entry procedure if an evacuation order is issued

The Monroe County Sheriff's Office would like to remind people about the procedure for re-entering the county if an evacuation order is given during a Hurricane.

First and foremost, no one should attempt to re-enter the county in the aftermath of a storm until officials from Monroe County issue an announcement that it is safe to do so. Many issues must be considered before residents are allowed back into the Keys. Before allowing residents to re-enter, officials must consider the safety of the areas affected by the storm, and the safety of the highway into and out of the Florida Keys. The next priority is getting emergency crews into the Keys in order to begin clearing roadways, assisting any people who might be injured, and begin clearing downed power lines and restoring crucial services like phones, electricity and water. Trucks and other vehicles carrying food, water and ice must be allowed to enter as soon as possible as well, along with groups offering emergency assistance like the American Red Cross and the Salvation Army.

After these people and vehicles are allowed into the county, and are set up to help those returning to hurricane damaged areas, then officials can begin considering how to allow residents to return to their homes in a safe and orderly fashion. Who is allowed in, and in what order depends on where damage has occurred, what the condition of the roadway is and how safe it is for people to travel in the Keys.

The Sheriff's Office highly recommends that everyone who does evacuate stay put in the aftermath of the storm until an announcement is made that they may return. Many people who attempted to return to the county directly following Hurricane Georges in 1998 ended up stuck in a long line of traffic in Florida City, with nowhere to go and nothing to do for a long period of time.

Remember: no one will be allowed to re-enter the Keys until it is determined to be safe. If it is necessary, depending on circumstances, Law Enforcement Officers will be stationed at all entry points to turn people around who try to return early.

Once an announcement is made that it is safe to return, everyone should proceed south on the Florida Turnpike to Exit One in Florida City. Once off the turnpike, **if it is deemed necessary**, law enforcement officers will check for Hurricane Re-entry decals and direct people to a designated staging area. Decals are issued

depending on where a person lives in the Keys. There are separate stickers for the upper, middle and lower Keys and for the city of Key West. Those people who do not have a decal will be pulled to the side and identification and/or proof of residency will be checked. These decals will allow officers to screen vehicles just in case it is safe for some people to return, but not others.

It is important that people not try to re-enter the county before it is determined to be safe. Remember, there aren't many facilities available at the designated staging areas, and they will not be comfortable areas to stay in for very long. Law enforcement officers in the Florida City area will not allow anyone to park on the highway or on the highway right-of-way for any extended period of time.

KLAC Action Plan

- **KLAC Action Report - Overview**
- **Supply Checklist**
- **KLAC Member Census**
- **KLAC Staff Census**
- **Construction Site Log**
- **Vehicle Status**
- **Vessel Log**
- **Haz Mat Log**

KLAC Action Report

Action	Date	Time	Initials	Remarks
Staff notified of action				
Establish communication with MCEM				
Info in/out TV station				
Set up tracking chart				
Set up status board				
Set up TV monitor				
Set up briefing area				
Notify Key Personnel				

Additional Notes:

Supply Checklist

Item	PAR LEVEL	DATE	TIME	INITIALS
Water supply				
Food supply				
Shutters with nails				
Fuel tanks full				
Bedding				
Flares				
Plastic covering w/nails				
Hammers				
Plastic plates				
Plastic cups				
Plastic utensils				
Toilet paper				
Paper towels				
Garbage bags				
Tarps				
Bungee cords				
Buckets				
Barrier tape				
Phosphorous sticks				
Mosquito spray				
Rain gear				
Extension cords				
Tire patch kit				
Rope				
Extra batteries				
Battery powered radio				
Flashlights				
Glow sticks				
Plywood 4x8 sheets				

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KLAC Unit Owner Census

	Name	Unit #	Phone	Evacuated To/
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

KLAC Resident Staff/Family Census

	Name	Unit #	Phone	Evacuated To/
1	Annear, Jim			
2	Annear, Susan			
3	Bigwood, Ed			
4	Bigwood, Pam			
5	Cardona, Elias			
6	Cardona, Hugo			
7	Claremont, Jocelyn			
8	Everhart, Buchanan			
9	Everhart, Cassy			
10	Everhart, Chris			
11	Everhart, Parris			
12	Godfrey, Jim			
13	Gonia, Henryk			
14	Headley, Paul			
15	Laban, Aaron			
16	Toth, Steve			
17				
18				
19				
20				
21				
22				
23				
24				
25				

KLAC Guest/Rental Census

	Name	Unit #	Phone	Evacuated To/
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
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14				
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21				
22				
23				
24				
25				

KLAC Construction Site Log

Address	Secure	Time	Initials	Remarks

KLAC Vehicle Status

Vehicle/Owner	Fuel	Date	Location

KLAC Vessel Log

Reg. #	Location	Owner	Phone #

Hazardous Materials Storage Sites

Location	Secured By: Initials/Time	Remarks
Maintenance Building		
Plant Chemicals		
Pool Chemicals		
Gasoline/Fuel for Mowers		
Batter Storage		
Paint Room		
Storage Lot		
Gasoline/Diesel Cans		
Chemical Sprays		
Battery Storage		
Pool Filtration Area		
Chemicals		
Cleaners		
Testing Supplies		
Laundry		
Chemicals		
Kitchen		
Chemicals		
Gas Shut Off		

KLAC Departmental Action Plan

- **KLAC Department Action Plan – Overview**
- **Departmental Checklists**
    - **Security**
    - **Maintenance**
    - **Grounds Maintenance**
    - **Marina**
    - **Administration**
    - **Food and Beverage**
        - **Kitchen**
        - **Dining**
        - **Bar**
    - **Housekeeping**

KLAC Departmental Action Plan - Overview

Each department manager is responsible for his staff and duties they are to perform:

General Manager:

1. Direct the emergency.
2. Keep informed from local, state, federal agencies.
3. Keep management and staff informed of developments.
4. Stay accessible.
5. Act as central hub for communication with mgrs. & staff.

Security:

1. Objects around entrance area secured or removed and stored.
2. Gate arms removed and store.
3. Remove and store any electronic equipment.
4. Make copies of any pertinent information and put in designated storage area.
5. Prepare emergency entrance and exit sheets.
6. Take down carport cover and store.
7. Be prepared for other assignments as needed.

Marina:

1. Store or tie together all sunfish and kayaks and store all bicycles.
2. Remove and store any loose objects from dock areas.
3. Shut off all fuel supply lines.
4. Remove all flags from mast and raise one storm flag.
5. Shut down the pump out station.

6. Secure the bait box area.

Departmental Action Plan continued…

7. Close and secure all cabinet doors and drawers.
8. Turn off and unplug all non essential items in office and lounge.
9. Remove and store all items pre-designated by action plan.
10. Bolt all dock box lids closed.

Office:

1. Remove any loose decorative items from tall shelves.
2. Put all pertinent paperwork in appropriate storage containers and areas.
3. Disconnect all office equipment and move to designated areas.
4. Disconnect all computer equipment and move to designated areas.
5. Move all supplies to designated areas.

Kitchen:

1. Turn off and unplug all non essential items.
2. Check and secure area behind kitchen – bring any loose items inside for storage.
3. Make sure all doors and windows are closed and latched.
4. Bring in chairs and mats from side porch [next to employee meal room] check outside doors in that area.
5. Close and secure all inside cabinet doors and drawers.
6. Move food items to higher shelves and cabinets as can be accommodated.

Dining

1. Clear all tables of items and store properly.
2. Remove items from entrance and roll up carpet.
3. Turn off and unplug all non essential items – [generator cannot run entire building].

4. Close and secure all cabinet doors and drawers.

Departmental Action Plan continued…

5. Help remove and store or secure all decorative items in club rooms...

Bar:

1. Remove and store all bottles and glasses from bar areas.
2. Remove and secure glass shelving from bar areas.
3. Turn off and unplug all non essential items.
4. Close and secure all cabinet doors and drawers.

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Maintenance – Club and Grounds:

1. Install all shutters on clubhouse.
2. Install shutters on laundry building.
3. Board up dock office
4. Install shutters on housing # 26-28
5. Remove and store fish from outside of clubhouse
6. Remove and store three birds from fountain in the circle
7. Check generator to be sure it is working properly.
8. Make sure all fuel supplies are full and pumps are working and secured
9. Check radios and battery supplies. Keep fully charged.
10. Keep power tools fully charged and spare batteries charged if possible
11. Remove all tables, chairs, furniture and loose objects around pool, north porch and clubhouse areas w/ help from grounds crew
12. Remove and store all pool supplies and equipment

13. Lower pool and spa water as pre-designated

Departmental Action Plan continued…

14. Check and secure all pool filtration area
15. Store all croquet and putting green equipment
16. Store all bocce ball and horseshoe equipment
17. Put away all garden hoses around the entire property, including the condo area
18. Store all garbage cans and loose objects
19. Check entire property for loose fronds, branches, etc. And secure or remove what can be handled quickly.
20. Check and secure all fencing and posts for solid attachment
21. Check and secure playground for any loose equipment, store whatever is necessary
22. Remove all tables, chairs, furniture and loose objects around pool, north porch and clubhouse areas w/ help from maintenance

On-site residents

1. Check and secure all loose items around the outside of the property
2. Make sure all outside furniture and lawn ornaments are taken in and stored properly
3. Flag poles and hanging planters inside and secured
4. Cars, golf carts, bicycles, etc. Inside and secured
5. Storm shutters in place and secured
6. Preparedness with supplies [use check list]

7. Notify front office that you will be staying on the property and phone numbers where you can be reached

Security/Front Gate Checklist

Action	Date	Time	Initials	Remarks
Objects around entrance area secured or removed and stored				
Gate arms removed & stored				
Remove and store any electronic equipment				
Make copies of any pertinent information and put in designated storage area				
Prepare emergency entrance and exit sheets				
Take down car port cover and store				
Be prepared for other assignments as needed				

Maintenance Checklist

		DESIGNATED	DATE	
STATUS	**PREPARATIONS**	**STORAGE AREA**	**DONE**	**INIT.**
	Install all shutters on clubhouse			
	Install shutters on laundry bldg.			
	Board up dock office			
	Install shutters on housing #26-28			
	Remove and store fish from outside of clubhouse			
	Remove and store three birds from fountain in circle			
	Check generator to be sure it is working properly			
	Make sure all fuel supplies are full and pumps are working and secured			
	Check radios and battery supplies. **KEEP FULLY CHRGD**.			
	Keep power tools fully charged and spare batteries charged if possible.			
	Check Emergency Light Batteries in Clubhouse			

Grounds Maintenance Checklist

		DESIGNATED	DATE	
STATUS	**PREPARATIONS**	**STORAGE AREA**	**DONE**	**INIT.**
	Put away all garden hoses around the entire property, including the condo area			
	Store all garbage cans and loose objects			
	Check entire property for loose fronds, branches, etc. and secure or remove what can be handled quickly			
	Check and secure all fencing and posts for solid attachment			
	Check and secure playground for any loose equipment, store whatever is necessary			
	Remove all tables, chairs, furniture and loose objects around pool, North Porch and Clubhouse employee deck areas w/ help from Maintenance			
	Help other staff as needed when done			

Marina Checklist

STATUS	PREPARATIONS	STORAGE	DONE	INITS.
	Remove and store any loose objects from dock area			
	Shut down and secure the pump out station			
	Secure the bait box area			
	Shut off all fuel supply lines			
	Turn off and unplug all non-essential items in Office and Lounge			
	Close and secure all cabinet doors and drawers			
	Remove and store all items pre-designated by action plan			
	Help other staff as needed when finished			

Administration Checklist

STATUS	PREPARATIONS	DESIGNATED STORAGE AREA	DATE DONE	INITS
	Move all supplies to designated areas			
	Remove any loose decorative items from shelves, etc.			
	Put all pertinent paperwork in appropriate storage containers			
	Disconnect all office equipment and move to storage area			
	Disconnect all computer equipment and move to storage area			
	Turn off and unplug all non essential items			
	Fed Ex Computer Back up to Chris Callsen, President ACMA	157 Hudson St Hudson, OH 44236		
	Help other staff as needed when finished			
	Print out Outlook Contacts			

Food and Beverage Checklist - Kitchen

		DESIGNATED	DATE	
STATUS	**PREPARATIONS**	**STORAGE AREA**	**DONE**	**INIT.**
	Bring in chairs and mats from side porch			
	Check and secure all outside doors and windows			
	Check and secure area behind kitchen – bring all loose items inside			
	Close and secure all inside cabinet doors and drawers			
	Move food items to higher shelves and cabinets; as can be accommodated			
	Turn off and unplug all non-essential equipment			
	Move Chemical Storage to higher inside shelves			
	Move chafer and equipment storage inside			
	Move table storage inside			
	Move all potted plants and herbs inside			
	Trash Cans, chairs, recycle bins, mops & buckets inside			

Food and Beverage Checklist - Dining

		DESIGNATED	DATE	
STATUS	**PREPARATIONS**	**STORAGE AREA**	**DONE**	**INIT.**
	Clear all tables or items and store properly			
	Close and secure all cabinet drawers and doors			
	Turn off and unplug all non-essential equipment			
	Help remove and store OR secure all decorative items in club rooms			
	Remove items from entrance and roll up carpet and store			
	Help other staff as needed when finished			

Food and Beverage Checklist - Bar

		DESIGNATED	DATE	
STATUS	**PREPARATIONS**	**STORAGE AREA**	**DONE**	**INIT.**
	Remove and store all glasses and bottles from bar areas			
	Remove and secure glass shelving from bar areas			
	Close and secure all cabinet doors and drawers			
	Turn off and unplug all non-essential items and store if needed			
	Help other staff as needed when finished			

Housekeeping Checklist

		DESIGNATED	DATE	
STATUS	**PREPARATIONS**	**STORAGE AREA**	**DONE**	**INIT.**
	Remove and secure all chemicals from floors			
	Close and secure all cabinet doors and drawers			
	Turn off and unplug all non-essential items and store if needed			
	Help other staff as needed when finished			

Recovery

- Establishing Normal Operations
- Security Functions
- Safety Precautions

Establishing Normal Operations

1. Establish normal shifts
2. Release non-essential personnel.
3. Return and check emergency equipment.
4. Continue security where needed.
5. Modify/adjust operation plans and training outlines in preparation for next incident.
6. Make recommendations to the Club Manager regarding the direction of Club resources and activities.
7. Implements protective action recommendations
8. Requests inter – local, state, federal assistance.
9. Coordinate emergency response activities.

Law Enforcement / Security Functions

1. Conducts normal emergency law enforcement and public protection activities.
2. Executes and enforces emergency orders.
3. Undertakes and coordinates search and rescue.
4. Provides security in evacuated areas.

5. Coordinates with Sheriff's Office immediate post disaster survey of damage.

6. Coordinates with fire rescue to conduct immediate post disaster survey of damage.

Safety Precautions

Keep Drinking Water and Food Safe

- Listen to public announcements to find out if local tap water is safe for drinking, cooking, cleaning, or bathing. Until the water is safe, use bottled water or boil or disinfect water.
- If a "boil water" advisory is in effect, do not drink tap water or use it to brush your teeth unless water has come to a rolling boil for at least 1 minute or is treated with unscented household chlorine bleach. To treat water, add 1/4 teaspoon (approximately 1.5 ml) bleach to 1 gallon of cloudy water or 1/8 teaspoon (approximately 0.75 ml) bleach to 1 gallon of clear water. Stir well and let it stand for 30 minutes before you use it.

Identify and throw away food that may not be safe to eat.

- Throw away food that may have come in contact with flood or storm water. Throw away canned foods that are bulging, opened, or damaged. Throw away food that has an unusual odor, color, or texture. Throw away perishable foods (including meat, poultry, fish, eggs and leftovers) that have been above 40°F for 2 hours or more. Thawed food that contains ice crystals or is 40°F or below can be refrozen or cooked. If cans have come in contact with floodwater or storm water, remove the labels, wash the cans, and dip them in a solution of 1 cup (240 milliliters) of bleach in 5 gallons of water. Re-label the cans with a marker.

Store food safely

- While the power is out, keep the refrigerator and freezer doors closed as much as possible. Add block ice or dry ice to your refrigerator if the electricity is expected to be off longer than 4 hours. Wear heavy gloves when handling ice.

Prevent Electrical Injuries

- Do not touch fallen electrical wires. They may be live and could hurt or kill you.
- Turn off the electrical power at the main source if there is standing water. Do not turn on power or use an electric tool or appliance while standing in water.

Avoid Contact with Animals and Insects

- Reduce mosquito bites. Consider avoiding outdoor activities during the evening and early morning, which are peak biting times for many mosquitoes. Use an insect repellent with DEET or Picaridin.
- Stay away from wild or stray animals. Stray dogs may be hurt or afraid and may bite. Call local authorities to handle animals.
- Get rid of dead animals according to local guidelines.

Prevent carbon monoxide poisoning

Carbon monoxide is an odorless, colorless gas that is produced by many types of equipment and is poisonous to breathe. Don't use a generator, pressure washer, charcoal grill, camp stove, or other gasoline- or charcoal-burning device inside your home, basement, or garage or near a window, door, or vent. Seek prompt medical attention if you suspect carbon monoxide poisoning and are feeling dizzy, light-headed, or nauseated.

Drive Safely

- Stop and look both ways at all intersections. Drive slowly and keep space between you and other vehicles. Watch out for trash on the road.

- Wear your seatbelt.
- Do not drive if you have been drinking.

Avoid unstable buildings and structures

- Stay away from damaged buildings or structures until they have been examined and certified as safe by a building inspector or other government authority. Leave immediately if you hear shifting or unusual noises that signal that the structure is about to fall.

Beware of hazardous materials

- Wear protective clothing and gear (for example, a respirator if needed) when handling hazardous materials. Wash skin that may have come in contact with hazardous chemicals. Contact local authorities if you are not sure about how to handle or get rid of hazardous materials.

Clean up and prevent mold growth

- Clean up and dry out the building quickly (within 24 to 48 hours). Open doors and windows. Use fans to dry out the building. To *prevent* mold growth, clean wet items and surfaces with detergent and water. To *remove* mold growth, wear rubber gloves, open windows and doors, and clean with a bleach solution of 1 cup of bleach in 1 gallon of water. Throw away porous items (for example, carpet and upholstered furniture) that cannot be dried quickly. Fix any leaks in roofs, walls, or plumbing.

Pace yourself and get support

- Be alert to physical and emotional exhaustion or strain. Set priorities for cleanup tasks, and pace the work. Try not to work alone. Don't get exhausted.

Prevent musculoskeletal injuries

- Use teams of two or more people to move bulky objects. Avoid lifting any material that weighs more than 50 pounds (per person).

- **Safety Precautions continued…**

Stay cool

- When it's hot, stay in air-conditioned buildings; take breaks in shaded areas or in cool rooms; drink water and nonalcoholic fluids often; wear lightweight, light-colored, loose-fitting clothing; and do outdoor activities during cooler hours.

Treat wounds

- Clean out all open wounds and cuts with soap and clean water. Apply an antibiotic ointment. Contact a doctor to find out whether more treatment is needed (such as tetanus shot). If a wound gets red, swells, or drains, seek immediate medical attention.

Wash your hands

- Use soap and warm water to wash your hands. If water isn't available, you can use alcohol-based products made for washing hands.

Wear protective gear for cleanup work

- Wear hard hats, goggles, heavy work gloves, and watertight boots with steel toes and insoles (not just steel shank). Wear earplugs or protective headphones to reduce risk from equipment noise.

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Emergency Generator Start Up and Transfer Power Procedures

THE GENERATOR CAN NOT RUN THE ENTIRE BUILDING
ALL NON-ESSENTIAL ELECTRICAL ITEMS SHOULD BE TURNED OFF AND UNPLUGGED

THESE STEPS MUST BE DONE IN ORDER

1. Electrical Room behind the kitchen,
   in Panels MB1 and MB2 – Turn all breakers off.

2. Breaker panels on the outside of Electrical Room, (right side).
   In Panels P1 and P2 - Turn all breakers off.

3. The Generator is located on the south side of the building, - outside of the bakery. OPEN ALLDOORS ON GENERATOR Be sure the breaker is in the on position (pushed up).

5. Turn the RUN OFF AUTO switch into the RUN position. At this time the Generator should start running.

6. Transfer Switch (Outside kitchen by ice machines).
   In Panels TS1 and TS2 – pull down the Tie Bar in each panel.

7. Electrical room behind the kitchen,
In panels MB1 and MB2 turn on all breakers with RED Dots.
(P1, P2, P3, L1, L6A, L6B, L7, L5)

8. Breaker panels on the outside of Electrical Room, (right side).In panel P1 turn on breakers, 8,9,12
In panel P2 turn on breaker 6.

RESTORING POWER

These steps must be done in order.

1. The Generator is located on the south side of the building, - outside of the bakery. Open the doors on the right side of the generator. Turn the RUN OFF AUTO switch to the OFF position.

2. Transfer Switch (Outside kitchen by ice machines).
In Panels TS1 and TS2 – push up the Tie Bar in each panel.

3. Electrical Room behind the kitchen,
in Panels MB1 and MB2 – Turn all breakers ON

4. Breaker panels on the outside of Electrical Room, (right side).
In Panels P1 and P2 - Turn all breakers ON

Appendix

- Hurricanes…An Overview
- Definitions
- Acronyms

Overview

Hurricane Formation and Decay

A hurricane can be described as a heat engine that is fueled by the latent heat liberated when huge quantities of water vapor condense. The amount of energy produced by a typical hurricane in just a single day is truly immense – roughly equivalent to the entire electrical energy production of the United States in a year. The release of latent heat warms the air and provides buoyancy for its upward flight. The result is to reduce the pressure near the surface which, in turn, encourages a more rapid inflow of air. To get this engine started, a large quantity of warm, moist is required and a continuous supply is needed to keep it going.

Hurricanes develop most often in the late summer when ocean waters have reached temperatures of 27 degrees Celsius (81 Fahrenheit) or higher and are thus capable of providing the necessary heat and moisture to the air. This ocean-water temperature requirement is thought to account for the fact that hurricanes do not form over the relatively cool waters of the South Atlantic and eastern South Pacific. For the same reason, few hurricanes form pole ward of twenty degrees latitude. Although water temperatures are sufficiently high, hurricanes do not form within five degrees of the equator, presumably because the Coriolis Effect is too weak to initiate the necessary rotary motion.

The exact mechanism of formation is not completely understood, but it is known that smaller tropical cyclones initiate the process. The U.S. National Weather Service labels such incipient storms tropical disturbances. Although many tropical disturbances occur each year, only a few develop into full-fledged hurricanes. Recall that tropical cyclones are called hurricanes only when their winds exceed 115 kilometers per hour. By international agreement, lesser tropical cyclones are given different names based on the strength of their winds. When a cyclone's strongest winds do not exceed 61 kilometers per hour, it is called a tropical depression; when winds are between 61 and 115 kilometers per hour, the cyclone

is called a tropical storm. Each year between 80 and 100 tropical storms develop over the earth. Of them, usually half or more eventually reach hurricane status.

Hurricanes diminish in intensity whenever they [1] move over ocean waters that cannot supply warm moist tropical air, [2] move onto land, and [3] reach a location where the large scale flow aloft is unfavorable.

Whenever a hurricane moves onto land, it loses its punch rapidly. The most important reason for this rapid demise is the fact that the storm's source of warm, moist air is cut off. When an adequate supply of water vapor does not exist, condensation and the release of latent heat must diminish. In addition, because the land is usually cooler than the ocean, the low-level air is chilled rather than warmed. Moreover, the increased surface roughness over land results in a rapid reduction in surface wind speeds. This factor causes the winds to move more directly into the center of the low, thus helping to eliminate the large pressure differences.

Hurricane Destruction

North Atlantic hurricanes develop in the trade winds generally move these storms from East to West at about 25 kilometers per hour. Then almost without exception, hurricanes move pole ward and are deflected into the westerlies, which increase their forward motion up to a maximum of 100 kilometers per hour. Some move toward the mainland, but their irregular paths make a prediction of their movement difficult [see figures 1-6 and 1-10].

A location only a few hundred kilometers from a hurricane, just one day's striking distance away, may experience clear skies and virtually no wind. Before the age of weather satellites, such a situation made it difficult to warn people of impending storms.

The worst natural disaster in U.S. history came as a result of a hurricane that struck an unprepared Galveston, Texas, on September 8, 1900. The strength of the storm, together with a lack of adequate warning, caught the population by surprise and cost the lives of 6000 people in the city and at least 2000 more elsewhere. Fortunately, hurricanes are no longer the unheralded killers they once were. Since the launching of the first meteorological satellite in 1960, meteorologists have been able to identify and track tropical storms even before they become hurricanes. Once a storm develops a cyclonic flow, and the spiraling bands of clouds so typical of a hurricane, it receives continual monitoring.

Although the amount of damage caused by a hurricane depends on several factors, including the size and population density of the area affected and the near-shore bottom configuration, certainly the most significant factor is the strength of the storm itself. By studying the storms of the past, a scale has been established that is used to rank the relative intensity of hurricanes. A five represents the worst

storm possible and a one is the least severe. The famous Galveston hurricane just mentioned with winds in excess of 209 kilometers per hour and a pressure of 931 millibars would be places in category four. Storms that fall into a category five are rare. Only three have hit the United States this century: Camille hit Mississippi in 1969, a Labor Day hurricane struck the Florida Keys in 1935, and Allen hit the south Texas coast in 1980.

Damage caused by hurricanes can be divided into three categories: [1] wind damage, [2] storm surge, and [3] inland freshwater flooding. Although wind damage is perhaps the most obvious of the categories, it is not directly responsible for the greatest amount of destruction. It does not mean, however, that wind damage cannot be significant. For some structures, the force of the wind is sufficient to cause total destruction. Mobile homes are particularly vulnerable. In addition, the strong winds can create a dangerous barrage of flying debris.

Without question, the most devastating damage is caused by storm surge. It not only accounts for a large share of coastal property losses, but it is also responsible for 90 percent of all hurricane-caused deaths. A storm surge is a dome of water 65 to 80 kilometers long that sweeps across the coast near the point where the eye makes landfall. If all wave activities were smoothed out, the storm surge is the height of the water above normal tide level. In addition, tremendous wave activity is superimposed on the surge. We can easily imagine the damage that this surge of water could inflict on low-lying coastal areas. In the delta region of Bangladesh, for example, most of the land is less than two meters above sea level. When a storm surge superimposed on normal high tide inundated that area on November 13, 1970, the official death toll was 200,000; unofficial estimates ran to 500,000. It was one of the worst disasters of modern times [a similar cyclone affected the area in 1991 officially causing 138,000 deaths and perhaps as many as 250,000]. The torrential rains that accompany most hurricanes represent a third significant threat – flooding. Whereas the effects of storm surge and strong winds are concentrated in coastal areas, heavy rains may affect places hundreds of kilometers from the coast for several days after the storm has lost its hurricane-force winds. A well-known example of such destruction is Agnes. Although it was only a category one storm on the Saffir-Simpson scale, it was one of the costliest hurricanes of the century, creating more than $2 billion in damages and taking 122 lives. The greatest destruction was attributed to flooding in the north-eastern portion of the United States, especially in Pennsylvania, where record rainfalls occurred. Another good example is Camille. Although this storm is best known for its exceptional storm surge and devastation brought to coastal areas, the greatest number of deaths associated with this storm occurred in the Blue Ridge Mountains in Virginia two days after Camille's landfall. Here many places received more than 25 centimeters of rain and severe flooding took more than 150 lives.

In the United States, early warning systems have greatly reduced the number of deaths caused by hurricanes. At the same time, however, there has been an astronomical rise in the amount of property damage. The primary reason, of

course, has been the rapid population growth in coastal areas. For example, during the 2960-1980 period, Florida, one of the states most vulnerable to hurricanes, doubled its coastal population. At the same time, Texas, another highly vulnerable state, experienced a 64 percent population increase in its seventeen coastal counties. The National Weather Service is concerned that such population increases could set the stage for a major hurricane disaster because the evacuation of large numbers of people might require greater warning times than are presently available.

Storm Surge

As was previously mentioned, it is the storm surge that is responsible for 90% of the damage caused by hurricane effects. The storm surge is produced by high winds near the center of the storm. Since the surface of the ocean in a hurricane is far from flat, water at the crest of a wave is much more exposed to the high winds than is water in the trough of a wave. For this reason, water that is exposed is "piled up" on water that is less exposed. At sea, the excess weight from the displaced water forces the water beneath, below the surface where it is dispersed. When the storm approaches a land mass and the ocean becomes shallower, the displaced water can no longer be dispersed in the depths of the ocean. The displaced water builds up and moves with the storm as it passes over land.

SAFFIR / SIMPSON HURRICANE SCALE

The Saffir / Simpson Hurricane Scale is used by the National Weather Service to give public safety officials a continuing assessment of the potential for wind and storm-surge damage from a hurricane in progress. Scale numbers are made available to public safety officials when a hurricane is within 72 hours of landfall.

Scale numbers range from 1 to 5. Scale 1 begins with hurricanes in which the maximum sustained winds are at least 74 mph, or will produce a storm-surge 4 to 5 feet above normal water level. Scale 5 applies to those in which the maximum sustained winds are 155 mph or more, or has the potential of producing a storm surge more than 18 feet above normal.

The Weather Service emphasis that the scale numbers are not forecasts, but based on observed conditions at a given time in a hurricane's life-span. They represent an estimate of what the storm would do to a coastal area if it were revised regularly as new observations are made, and public safety organizations are kept informed of new estimates of the hurricane's disaster potential.

The Saffir / Simpson Hurricane Scale indicates probable property damage and evacuation recommendations as listed below; the descriptions below are made for mainland coastal areas, and due to the geographic configuration of the Keys, must be adjusted with regards to the storm surge.

CATEGORY 1: Winds of 74 mph to 95 mph. Damage occurs primarily to shrubbery, trees, unanchored mobile homes, and poorly constructed signs. Storm surge is about 4 to 5 feet above normal. Low-lying coastal roads inundated, minor pier damage occurs, and some small craft in exposed anchorage are torn from moorings.

CATEGORY 2: Winds of 96 mph to 110 mph. Considerable damage to shrubbery and trees with some blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Some damage to roofing materials, windows, and doors, but not major damage to buildings. Storm surge is about 6 to 8 feet above normal. Coastal roads and low lying escape routes inland cut off by rising water two to four hours before arrival of the hurricane eye. Considerable damage to piers. Marinas flooded. Small craft in unprotected anchorage torn from moorings. Evacuation of some shoreline residents and low-lying island areas required.

CATEGORY 3: Winds of 111 mph to 130 mph. Extensive damage to large trees. Poorly constructed signs are blown down. Damage to roofing materials, windows and doors. Some structural damage to small buildings. Mobile homes destroyed. Storm surge is 9 to 12 feet above normal. Serious flooding along coast with many smaller structures near the coast destroyed and large structures damaged by battering waves and floating debris. Low-lying escape routes further inland by rising water three to five hours before the eye of the hurricane arrives. Flat terrain 5 feet or less above sea level flooded inland 8 miles or more. Evacuation of low-lying residents within several blocks of shoreline possibly required.

CATEGORY 4: Winds of 131 mph to 155 mph. 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. Storm surge is 13 to 18 feet above normal. Flat terrain 10 feet or less above sea level flooded inland as far as 6 miles. Major damage to lower floors of structures near shoreline due to flooding, battering waves, and floating debris. Low-lying inland escape routes cut off by rising water three to five hours before the hurricane eye arrives. Major erosion of beaches. Massive evacuation of all residences within 500 yards of shore possibly required, and of single-story residences on low ground within 2 miles of shore.

CATEGORY 5: Winds greater than 155 mph. Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down. Severe and extensive damage to windows and doors. Complete failure of roofs on many residential and industrial buildings. Extensive shattering of glass in the windows and doors. Some complete building failures. Small buildings overturned or blown away. Complete destruction of mobile homes. Storm surge is greater than 18 feet above normal. Major damage to lower floors of all structures less than 15 feet above sea level

within 500 yards of shore. Low-lying escape routes inland cut off by rising water three to five hours before the hurricane eye arrives. Massive evacuation of residential areas on low ground within 5 to 10 miles of shore possibly required.

Definitions

Advisory

A National Weather Service message providing storm location, intensity, movement, and precautions to be taken.

Eye

The roughly circular area comparatively light winds and fair weather at the center of a hurricane. Eyes are usually 25-30 mile in diameter. The area around the eye is called the wall loud. [Do not go outdoors while the eye is passing; the full intensity of the storm will reoccur in minutes].

Hurricane

A tropical weather system characterized by pronounced rotary circulation with a constant minimum wind speed of 74 miles per hour [64 knots] which is usually accompanied by rain, thunder, and lightning. Hurricanes often spawn tornadoes.

Hurricane Alert

The county manager will issue a hurricane alert if readiness actions are required before a hurricane watch is issued. Actions normally taken during a hurricane watch should be initiated when a hurricane alert is declared.

Hurricane Season

The six-month period from June 1st through November 30th is considered to be hurricane season.

Hurricane Watch

Issued by the National Hurricane Center when a hurricane threatens, the watch covers a specified area and time period. A hurricane watch indicates hurricane conditions are possible, usually within 24-36 hours, but it does not mean they will happen. When a watch is issued, listen for advisories and be prepared to take action if advised to do so.

Hurricane Warning

A warning is issued by the National Hurricane Center 24 hours before hurricane conditions [winds greater than 74 mph] are expected. If the hurricane path changes quickly, the warning may be issued 10 to18 hours or less, before the storm makes landfall. A warning will also identify where dangerously high water and waves are forecast even though winds may be less than hurricane force.

Landfall

The point and time during which the eye of the hurricane passes over the shoreline. After passage of the calm eye, hurricane winds begin again with the same intensity as before but from the opposite direction.

Protective Action

Actions taken to put emergency staff and the public in a state of readiness to better prepare for the impending emergency.

Storm Surge

A dome of seawater, over 50 miles across the coastline inundating the land with up to 1 foot of water above normal high tide. The ocean level rises as a hurricane approaches, peaking where the eye strikes land and gradually subsiding after the hurricane passes. Storm surge, also known as tidal flooding, has been responsible for many hurricane deaths.

Tropical Storm

An area of low pressure with a definite eye and counter-clockwise winds of 39-74 miles per hour. A tropical storm may strengthen to hurricane force in a short period of time.

Tropical Storm Warning

Issued by the National Hurricane Center when winds of 55-73 mph [48-63 knots] are expected. If a hurricane is expected to strike a coastal area, separate tropical storm warnings will not usually precede hurricane warnings.

Acronyms

EBS	Emergency Broadcast System
EIS	Emergency Information System
EOC	Emergency Operations Center
FEBS	Florida Emergency Broadcast System
FHP	Florida Highway Patrol
FMP	Florida Marine Patrol
FFW	Florida Fish and Wildlife
MCEM	Monroe County Emergency Management
MRE	Chris Everhart, General Manager
NAWAS	National Warning System
NHC	National Hurricane Center
NM	Nautical Mile(1.1508 eng. Mile)
NOAA	National Oceanic and Atmospheric Administration
PIO	Public Information Office
SEOC	State Emergency Operations Center
SLOSH	Sea Lake and Overland Surges Hurricane