



2011

Hurricane Guide



MARSHALL
STUDENT CENTER

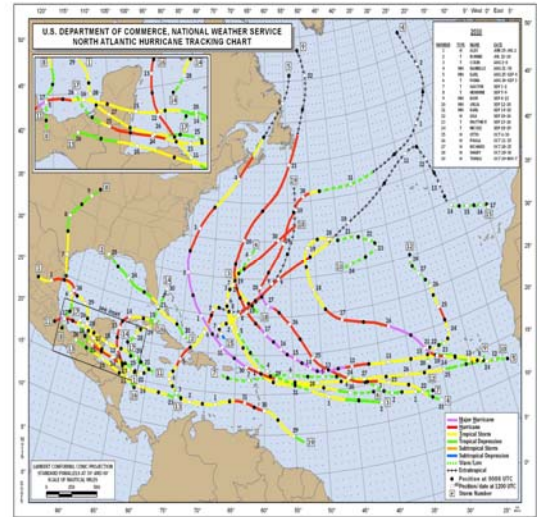
USF UNIVERSITY OF
SOUTH FLORIDA

Dear USF Students, Faculty, and Staff,

Though the 2010 hurricane season was relatively quiet for USF and most of the United States, the 6-month storm period produced 19 named storms. Igor, the strongest hurricane, reached Category-5 hurricane strength with winds topping 155 mph; however, Bonnie was the only storm that made landfall in the U.S., clipping southern Florida before dissipating in the Gulf of Mexico.

Early uncharacteristic weather conditions have led many forecasters to predict that the 2011 hurricane season (1 June-30 November) will be quite similar to the previous year. Weather experts suggest that there may be as many as 17 named storms in the Atlantic hurricane basin. Nine of these storms will strengthen into hurricanes; five attaining major hurricane strength (Category 3, 4 or 5). In the short period of January-April 2011, much of the world witnessed disastrous conditions inflicted by other natural hazards such as flooding, tornadoes, earthquakes, and tsunamis.

We must be prepared! *We* must have a plan!



Your individual preparedness actions greatly contribute to USF's ability to prepare, respond to and recover from any storm, minor or major. The information contained in this guide, as well as information contained on the [USF Public Safety website](http://www.usf.edu/publicsafety), was developed to help you prepare. Additional hurricane preparedness information is available from the FEMA website <http://www.fema.gov/hazard/hurricane/index.shtm>.

This guide also serves as your "ready reference" of the specific campus-wide activities that are likely to occur, should a tropical storm or hurricane threaten the University of South Florida. Remember, tropical cyclones can intensify and change direction within hours. I encourage you to stay observant of changing weather conditions during this hazardous season.

You must be prepared! *You* must have a plan!

How can you help?

- Monitor the weather very closely during this season, particularly during the months of August-October when hurricane conditions and storm development is most favorable.
- Be prepared. Have your Basic Emergency Supply Kits ready, know your evacuation route, and communicate your plan to family, friends, and co-workers. A Basic Emergency Supply Kit checklist is contained in this document.
- Follow directions and guidance administered by USF Administration, Public Safety Officials and Emergency Management partners. All official information regarding campus closings, class cancellation, evacuation, and repopulation of the campus will be communicated through the [main USF website](http://www.usf.edu), the [emergency USF website](http://www.usf.edu/emergency), the USF Emergency Information Line 1-800-992-4231, and other media outlets.
- Do not return to the campus until directed to do so. Hurricanes can inflict severe damage to infrastructure, roadways, and buildings. Post-hurricane environmental conditions are likely to be unsafe. Please afford USF disaster management teams the opportunity to recover the campus and provide a safe environment.

Be Prepared, Be Ready, and Be Safe!

Paul Latham, FPPEM, CHS
USF Emergency Manager

Front Cover: Kenneth Davis, a senior at USF, created the cover design. Ken is pursuing a Bachelor of Fine Arts degree with a concentration in video.



When Tropical Storms and Hurricanes Threaten

The University of South Florida System activates its emergency operation plan when a tropical system threatens the region. The plan is designed to ensure the safety of the USF population, protect University assets, and provide Continuity of Operations. When facing a storm, you and the University have important decisions to make. This guide has been prepared to provide you information so you will know how to plan and respond.

Evacuation Information:

Before, During and After the Storm

Communications will be sent to all USF personnel via email and MoBull Messaging whenever the campus is preparing for an evacuation, closure and re-opening. Additional information will be placed on the USF Main Website, and a recorded message will be available from the USF's Emergency Hotline (**800-992-4231**), and the media. It is important to remain in contact with USF during such emergencies. Conditions can change rapidly.

Prior to each evacuation, resident students will meet with their Resident Advisors to review procedures.

Communication

You should begin making general evacuation plans now. Waiting for the storm to arrive is too late. As the storm nears, communicate your evacuation plan to family, friends, or coworkers so someone knows where you are. If you must change your plan, ensure you reconnect with family and friends.

Continually monitor USF's web site, **www.emergency.usf.edu**, or call **1-800-992-4231** for updates once you depart the campus.

DO NOT RETURN TO CAMPUS UNTIL THE UNIVERSITY HAS ISSUED THE "ALL CLEAR" AND RE-OPENING INSTRUCTIONS ARE PROVIDED.

Keeping in Touch...Students, Faculty, and Staff

Should it be necessary to evacuate the campus, your faculty members should provide you assignments before you leave. If possible, your professors will remain in touch with you by e-mail while the campus is closed. Continue to check your campus e-mail address and the USF website for information.

If you believe that you will not have access to e-mail, develop alternative methods with your professors to keep in touch.

Likewise, USF Departments should develop procedures to remain in contact with their staff.

University Preparedness Measures

USF begins hurricane preparedness activities in March of each year with the review of the Emergency Operations Plan (EOP). In April, USF Emergency Management solicits input for changes to the USF Continuity of Operations Plan (COOP), and in May, updates to Memorandums of Agreement/Understanding and phone listings are completed.

Although the official hurricane season does not officially begin until June 1st, USF Emergency Management begins tracking all low-pressure systems, which are positioned in ideal locations for formation, as early as mid-May.

In 2007, the first storm of the season, Subtropical Storm Andrea, formed out of a large extratropical cyclone off the coast of the United States on May 9, about 150 miles northeast of Daytona Beach, Florida. Andrea was the first pre-season storm to develop since Tropical Storm Ana in April 2003 and the first Atlantic named storm in May since Tropical Storm Arlene in 1981.

Given ideal conditions, low-pressure systems can rapidly develop into tropical cyclones. Because of this phenomenon, the USF Emergency Management will distribute "Tropical Update" notices to select members of the USF Critical Incident Planning Group (CIPG) and Executive Policy Group (EPG). The National Hurricane Center (NHC) normally labels these low-pressure systems as "Invest-##," short for Investigation.

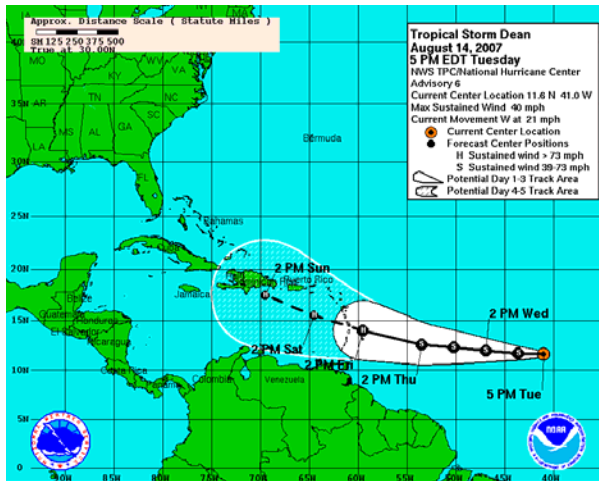
Though computer models are somewhat unreliable, Emergency Management will issue a "Tropical Update" notice whenever any model forecasts a storm to impact Florida.

USF Emergency Management will continually monitor a storm throughout its life and provide updates when necessary.

The Cone of Uncertainty (3 & 5 Day Cone)

The cone depicts the long-term average error in the forecast of the track of the cyclone center. It is important to remember that the effects of a tropical cyclone can be experienced well away from the center of the cyclone and well outside of the cone of

uncertainty, since the actual path of the center does not always stay within the cone, and since tropical cyclones vary in intensity and size. The wind speed probabilities provide more direct information about what wind conditions could be experienced at specific locations both inside and outside of the cone. The cone of uncertainty is a projected path of where hurricane's center will pass within five days.



The part of the cone reflecting a storm's potential position five days out is 655 miles wide. In 2009, it was nearly 695 miles wide. The four-day and three-day positions have also been reduced to 506 miles and 370 miles, respectively. The line in the center of the cone is typically the best-estimated path of the threatening tropical storm and can have a margin of error up to 99 miles during a 48-hour outlook. Residents living in any area blanketed by the cone should prepare for some affects from the storm.

If USF lies with the NHC's Five-Day (120-hour) Cone of Uncertainty, the following actions are likely to occur:

Day 5 (120 hrs): USF Emergency Management will activate members of the Critical Incident Planning Group (CIPG) and Executive Policy Group (EPG). University Communications and Marketing will issue a weather alert to the USF community and recommend that departments and building managers follow their individual hurricane plans and checklists.

Generally, administrative and academic units will update contact information and review evacuation procedures and supplies. Physical Plant may begin protective measures on campus as it may take several days to secure the campus prior to a storm's arrival. USF Emergency Management will continue to monitor all NHC and local National Weather Service forecasts.

USF Departments, Colleges, and other campus activities should review current resource levels to ensure adequate supplies are on-hand to sustain their activities during the storm event. Additionally, Departments should review current event, academic, and clinic schedules and begin preparing alternative courses of action should the storm threaten the campus.

Build your hurricane "go-kit" early. Do not wait for a storm to threaten the area to build the kit. Remember important documents and cash when building your kit.

This is the ideal time for all individuals to review their personal hurricane plans and to ensure that all needed supplies are in their hurricane kit. Students should have conversations with their families to review their hurricane plans and to discuss where the students might go in the event the storm continues to approach our area and students are required to evacuate their residences. Students planning to remain in homes, apartments, hotels, and shelters outside evacuation areas should review and stock supplies in their hurricane kits.

Day 4 (96 hrs): Generally, before the close of the business day and depending on NHC and local National Weather Service forecasts and local conditions, the CIPG may transmit its evacuation recommendation to the USF President; the CIPG may also decide to wait for additional forecasts before making an evacuation recommendation. The USF President and members of the EPG may then make decisions and announcements regarding USF operations and evacuation.

NHC and National Weather Service reports about the storm's characteristics (size, intensity, speed, and projected place of landfall), the storm's projected impact on our area, and actions taken by the local government will guide USF in its decision to evacuate or close the campus, or cancel classes.

If at the four-day mark and the University is within the cone, USF Emergency Management will monitor weather post daily tropical updates to the USF Emergency webpage (www.emergency.usf.edu), reflecting the current position of the storm. Members of the CIPG will coordinate with Physical Plant and other USF Departments to ensure the Emergency Operations Center is fully functional and ready for activation should conditions worsen. The University will review academic, event, and clinic schedules and anticipate cancellation. Departments and business functions should begin staging of materials and resources (sandbags, plastic, tarps, etc.) needed to safeguard USF assets.

The Three-Day Cone of Uncertainty

The National Hurricane Center's probability of accurately predicting landfall location increases as the storm enters into the three-day cone.

Should USF Tampa fall within the 3-day cone, the following timeline of actions are likely to occur.

(If landfall is projected to occur on a Sunday or Monday, the timeline of actions is likely to be completed prior to the end of the normal business day on Friday.)

Storm dynamics, local government actions, and time of year will all contribute to decisions made by USF's Executive Policy Group to evacuate students, faculty, and staff. While the probability of pinpointing the exact location of hurricane landfall significantly increases at the 3-day mark, hurricanes can suddenly change course and place unthreatened areas in harm's way.

In 2004 Hurricane Charley was forecast to impact the Tampa Bay area as a Category-2 hurricane. In a matter of hours the storm rapidly intensified to a Category-4 hurricane and turned towards Port Charlotte, FL.

Day 3 (72 hrs): Based upon credible information and analysis, USF may consider evacuation of students as early as 72-hours prior to landfall. Faculty and staff shall remain on campus to meet students' needs during evacuation and to complete campus preparedness actions. Prior to evacuation, all students shall provide Resident Advisors a contact phone number and the location to which they are evacuating.

Once students evacuate, and preparedness actions are complete, non-essential faculty and staff will likely be released to leave the campus and prepare their homes.

Depending on the situation, the Executive Policy Group may delay issuing evacuation orders; however this will never be less than 48 hours before impact. Evacuations will not be conducted at night.

Day 2 (48 hrs): *(If not previously completed, the Executive Policy Group will issue an evacuation order for all students and non-essential personnel.)* At the 2-day mark, only pre-identified essential personnel should remain on campus. All necessary preparedness activities should be finalized, and essential personnel (faculty and staff essential to recover the campus) shall be afforded the opportunity to prepare their homes and families for the impending storm. All campus construction should be secured.

Landfall location projections accuracy is normally within 130 miles at this point.

Day 1 (24 hrs): The accuracy of pinpointing the storm's landfall location is typically within 70 miles as it moves closer to the coastline. Essential personnel who have

returned from preparing their homes for the storm will accomplish final preparedness actions. Physical Plant, University Police, and other personnel will conduct a building-by-building sweep to ensure that all personnel evacuated, buildings are secure, and potential flying hazards are minimized throughout the campus. The Emergency Operations Center will activate in anticipation of the storm's arrival.

As the storm grows nearer, and winds exceed 40mph, the local government will secure bridges and overpasses, and may no longer respond to 911 emergencies.



Waves grow in intensity and begin to batter a coastal home as Hurricane Igor approaches. Photo by MSNBC, September 2010.

12-hours: The EOC is fully activated. Preparedness measures are complete, and all personnel have either been evacuated and/or sheltered from the storm. Members of the CIPG will continuously monitor the storm until landfall occurs.

Once the storm has made landfall and passes to a safe distance from the campus (winds <40mph) and daylight exists, a Rapid Damage Assessment team will survey the campus and determine what immediate actions must be taken to safely recover the campus and restore normal operations.

Because hurricanes are so large, effecting a vast population, it is likely that similar actions will occur throughout the Tampa Bay area. Therefore, decisions to reopen the campus will likely be driven by the progress of recovery efforts in the community as well.

MoBull
» Messenger

Your critical link for emergency warnings and information.
Sign up at www.mobull.usf.edu

Residence Hall Room Preparations

Before you leave your room, completely empty and unplug your refrigerators, and wrap towels around the base to absorb water after they defrost. Take your most important belongings, valuables, and personal documents with you. Be sure to take your course materials with you.

USF is not responsible for any personal belongings, including vehicles that are left behind following an evacuation. USF will take reasonable steps to prevent theft during an evacuation.



Know what your family's homeowner's policy covers in your residence hall room. Homeowner insurance does not normally cover flood damage. To protect yourself from flood damage losses, consider flood insurance. Renter's insurance may or may not cover possessions in your residence hall room. Verify your policy at the start of the hurricane season, and if possible, obtain a statement in writing that your personal belongings are covered by your policy.



Unplug all power cords before leaving. Close and lock your windows tightly (do not tape them). Remove your trash. Lock your door. Remember to move items that may be damaged by water off the floor and cover electronic items with plastic.



Do not leave your pets behind. Prepare a safe location for your animals. This may be with you, with a friend or in a kennel in a non-evacuation zone, or in a pet-friendly shelter. Pet friendly shelters will only accept dogs and cats, and require up-to-date vaccinations and registration. Visit the Hillsborough County Emergency Management website for more info.
www.hillsboroughcounty.org/emergency/home.cfm



If in doubt, throw it out!

If left unopened, your refrigerator is likely to keep food chilled for 4 hours and a fully loaded freezer about 48 hours. However, food is likely to spoil once refrigerators are unplugged or power is lost. Refrain from purchasing large quantities of perishable food during hurricane season. Purchase foods that can be consumed in relatively short order or do not require refrigeration.



Communicate where you are going and how you can be contacted. Historically, most tropical storms and hurricanes that impact the Tampa Bay area move towards

the northeast or northwest. Continue to monitor weather and forecasts for the most current storm position, and head away from the path of the storm.

Vehicles

Fill your vehicles up early. Long lines and fuel shortages will occur as the storm moves closer to the area. If possible, refuel your vehicle outside of the immediate area.

As a storm approaches, fill your gas tank and prepare your vehicle for travel. Gas supplies may be hard to find during an evacuation. Anticipate higher gasoline prices due to high demand. Take your vehicle with you, if possible. If you leave your vehicle on campus, move it to designated locations within garages.

Make sure that your decal is properly displayed so you can be identified as the owner. Review your auto insurance policy and if possible obtain a statement in writing that your vehicle will be covered from hurricane related damages.

There will be a high demand for fuel after the storm passes the area. If you are returning to the campus or the local community, anticipate long-lines and fuel rationing. In some situations you may not be able to refuel your vehicle after you return.

Be prepared for price spikes in fuel before and after a storm. A significant increase in price is normally a sign of price gouging, and is illegal. Price gouging should be reported immediately to the Florida Attorney General's Office at (866) 966-7226.

Hurricane Evacuation Shelters

Shelters should be considered as a last resort. Consider staying with friends and family in non-evacuation zones, or in hotels. Shelter space is limited (10 sq/ft per person) and will not be able to safeguard your personal belongings.

The University of South Florida has two locations on campus that are designated as Red Cross Shelters, Pizzo Elementary School and the Sundome. The Sundome however is undergoing renovation and will not be available this storm season.

Students, faculty, and staff should plan two evacuation locations: (1) in county or within close driving distance of the campus and (2) home or other location outside of the storm's path. Students may wish to develop budgets to share driving and hotel expenses. Students may wish to purchase a refundable plane ticket that can be used during hurricane season or for travel for holidays.

Preparedness and flexibility are essential when planning for evacuation. Uncertain storm paths can sometimes lead to changes in USF's evacuation decisions.

What to Take to an Evacuation Shelter

- Medications
- Pillow, blanket, air mattress and/or cot
- Special dietary needs
- Passports and other hard to replace documents
- Cash
- Identification
- Clothing for five to seven days, socks, sturdy shoes
- Personal hygiene items
- Bottled water, snacks and nutritious food
- Quiet games, reading material, CD player and headphones, batteries
- Lightweight folding chair
- Flashlight and extra batteries
- Keys to your car and residence/residence hall room

A container or suitcase with locks securing your belongings may be helpful. In most cases, cots will not be provided. Alcohol, firearms, and tobacco are prohibited.



Survivors huddle in the Astrodome during Hurricane Katrina. Photo by Andrea Booher, 9/2/2005

After the Storm...Recovery

After the Rapid Damage Assessment (RDA) is conducted, the USF Emergency Operations Center will produce the first post-incident situation report and provide recovery recommendations to the Executive Policy Group.

Individuals designated as essential personnel, who remained on campus during the storm, working with other disaster recovery personnel, will begin operations to ensure that all immediate hazards across the campus are eliminated. Power, water, and sewage systems will be restored, and debris covering essential thoroughfares will be cleared prior to the campus reopening.

Faculty and staff members who evacuated and may be needed to recover the campus should report back to work as soon as it is safe to leave their homes and re-

entry is permitted by the local government. Information will be provided through the USF Website and other media sources.

Valid and updated identification such as your driver's license, proof of residence, or a current utility bill may be required at checkpoints for evacuees to return to the area. A valid USF ID will be required for all personnel entering the campus during recovery operations.

Returning to Campus

NON-ESSENTIAL PERSONNEL SHOULD NOT RETURN TO CAMPUS UNTIL THE UNIVERSITY HAS ISSUED THE "ALL CLEAR" AND PROVIDED RE-OPENING INSTRUCTIONS.

The severity and intensity of the damage caused by the storm, the storm's current location and impact on transportation corridors, will heavily contribute to decisions to reoccupy the campus.



Reentry into hurricane-affected areas is likely to be controlled by checkpoints. In some instances, access may only be granted to authorized emergency personnel.

All students, faculty, and staff who evacuated from the area should continually monitor news and other media services for up-to-date information regarding returning to campus.

Continual tropical updates and information... www.emergency.usf.edu or 1-800-992-4231

In less severe situations, students, faculty, and staff should anticipate returning to the campus within 24-48 hours after the storm has passed.

During extreme or disaster situations, the campus may delay as much as 1-2 weeks before reoccupying the campus with non-essential personnel.

In 2004, The University of West Florida remained closed for 3 weeks after Hurricane Ivan caused damage to 95% of the campus buildings. Students returned to school with a closed field house that lost three-quarters of its roof.

During extreme situations, all personnel returning to the campus should anticipate that food, water, and other essential needs may be scarce, and should bring necessary items to sustain themselves for several days.

Other Hurricane Produced Hazards

Many people associate extreme winds and storm surge with hurricanes, but these tropical systems can also produce a variety of other hazards that can inflict casualties and fatalities.

Tornadoes



Tornadoes commonly occur along the right-front quadrant (relative to the storm's direction and rotation) of a hurricane. Hurricane produced tornadoes may occur nearly 200 miles from the

hurricane eye, and may spawn days before and after landfall.

Flooding

While storm surge is always a potential threat, in the last 40 years, more people have died from hurricane produced flooding. Weak/slow moving hurricanes can produce significant rainfall and cause inland flooding (Hurricane Fay 2008). Water damage increases the likelihood of mold contamination in buildings, which can be a major health concern for some.

Hazardous Materials

Storm surge and battering winds can decimate infrastructure, buildings, and industrial centers creating a cesspool of toxic hazardous materials. Contaminated water supplies may carry disease and cause severe sickness if ingested. Until authorities ensure potable water systems are safe, only consume bottled water from reliable sources.

Recovery Accidents

Downed power lines, twisted debris, collapsed buildings, and broken glass create an obstacle course of safety hazards. Anxiousness and carelessness are common contributors to hurricane casualties. Adhere to safety precautions and wear protective equipment and clothing.

Animals and Insects

Displaced and disrupted rodents, reptiles, stray domestic pets, and insects are also searching for food/shelter. Standing water can become a breeding ground for mosquitoes, and debris piles are likely to house snakes and pests. Use caution and protective clothing when working in these environments.

Weather Sources

There are countless weather agencies, businesses, tools and blogs providing hurricane information. Nearly all of these sources obtain their information from the National Hurricane Center. Whichever media sources you choose ensure that the information is reliable.

USF Emergency Management obtains current storm information from the National Hurricane Center (www.nhc.noaa.gov).

For More Information

Please visit the USF Public Safety webpage (www.usf.edu/publicsafety) for more information regarding hurricane preparedness and other campus safety initiatives.

The Hillsborough County Office of Emergency Management provides tips on preparedness and reentry procedures if asked to evacuate. They can be contacted at (813) 236-3800 or visit their website at www.hillsboroughcounty.org/emergency/home.cfm

The Florida Division of Emergency Management has a wealth of information and is a critical source before/during/after a hurricane incident. Visit their website at www.floridadisaster.org



Still Have Questions? Need Help?

Contact Paul Latham, USF Emergency Manager
Phone: (813) 974-1310 or
Email: platham@usf.edu.



Gulf of Mexico Hurricane Tracking Chart

