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University of Houston  
Hurricane Response Guide  
2022

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## SECTION I – UH HURRICANE RESPONSE GUIDE OVERVIEW

### INTRODUCTION

The University of Houston (UH) is vulnerable to impacts from tropical storms and hurricanes. This Hurricane Response Guide provides guidelines on preparedness and response to a hurricane. It addresses pre-storm preparation as well as post storm recovery actions. The timing and implementation of any or all steps may be altered based upon facts and circumstances surrounding any individual hurricane event. The primary objectives of campus emergency planning are as follows:

- Ensure safety and protection of faculty, staff, students and visitors
- Stabilize the incident or impacts from the emergency
- Mitigate damage and protect university assets
- Restore business and academic operations as quickly as possible

This guide is developed to establish university-wide response strategies to be used in the event of a hurricane. Each UH Department is responsible for developing their own emergency plan and executing their own preparedness and recovery actions. For more information regarding building an Emergency Response Plan, please visit <https://uh.edu/emergency-management/planning-and-response/building-department-preparedness/>. These plans should include information specific to hurricane planning and recovery. This Hurricane Response Guide serves as a tool to assist departments in developing their own plan in order to respond and recover from impacts of tropical weather. In addition, each division, department, area and unit should have a Continuity of Operations Plan which addresses how essential functions will continue or resume in the event of a disruption. More information and templates on emergency planning and continuity of operations planning are available at <https://uh.edu/emergency-management/planning-and-response/business-continuity-plans/>.

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## **SITUATION AND ASSUMPTIONS**

### **SITUATION:**

1. In the past, the UH campus has been impacted by several tropical storms and hurricanes. For this reason, it is expected that tropical weather will impact the UH campus again requiring departments to take protective actions.
2. The hurricane threat facing the State of Texas has the potential to cause catastrophic damage, mass casualties and mass fatalities. The occurrence of a catastrophic hurricane could quickly overwhelm affected local governments and rapidly deplete State of Texas resources. It is essential that all essential functions remain prepared to continue to operate effectively during crisis and continue to ensure public safety, essential services, and uninterrupted coordination and control capabilities.
3. Effective prevention and preparedness operations, early warning and evacuation, and well-trained and equipped response forces may reduce the impacts caused by a hurricane. Effective pre-disaster prevention and mitigation initiatives can also reduce the amount of damage to property and facilities resulting from a disaster. Successful recovery operations are critical to the rapid restoration of infrastructure and services in the impacted area.

### **ASSUMPTIONS:**

1. If the University of Houston (UH) is faced with hazardous conditions, the primary concern and priority will be life-safety issues followed by the protection of UH property.
2. The occurrence of a catastrophic event may cause widespread damage to the infrastructure and curtail emergency response capabilities of the University as well as state and local governments. Such an event could result in the government being unable to adequately provide for the safety and welfare of the general public in a timely manner.
3. The UH Emergency Operations Center and other essential facilities may be destroyed or become inoperable during a disaster. Additional effectiveness may be possible through use of a mobile coordination and control capability.
4. Primary communications systems may be destroyed, degraded, or rendered inoperable in a disaster.

5. The identification and continued protection of vital records is essential to the continuity of university operations and an effective return to normal operations.
6. Flooding and loss of power can cause critical issues in university facilities and public works infrastructure that may be out of service for days or weeks. These include electric power, water, wastewater, storm water drainage, roads/bridges, and other utilities. Disruption of these services impact the ability of the university to re-open and for students, faculty and staff to return to campus.
7. Each department is responsible for developing their own emergency plan and executing their own preparedness actions, including monitoring information and official communications provided by the University of Houston.
8. Each department is responsible for developing their own Continuity of Operations Plan to ensure continuity of essential functions and how to resume normal operations in the event of a disruption.

## **SECTION II – CONCEPTS OF OPERATIONS**

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### **INTRODUCTION**

The Concept of Operations for any emergency on the UH campus is outlined in the UH Emergency Management Plan and can be found in the “Concept of Operations” section. A hurricane threat will be managed utilizing the same framework. However, this section will outline details specific to a hurricane threat and response.

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### **TROPICAL WEATHER MONITORING**

Hurricane season begins on June 1<sup>st</sup> and ends on November 30<sup>th</sup> of each year.

Each department should monitor the tropical weather forecast for the possibility of any local impacts. Tropical weather information is available from numerous sources ranging from local media to the internet. Below are a few suggested websites to monitor during hurricane season.

- National Hurricane Center <https://www.nhc.noaa.gov/>
- Houston/Galveston, Weather Forecast Office (NWS) <https://www.weather.gov/hgx/>

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## **TROPICAL WEATHER TERMS**

The following definitions are important terms utilized by weather forecasters and the media to communicate to the public the possible hazards and conditions that may be expected from approaching tropical weather. This list of definitions may be utilized and included in departmental hurricane plans.

### **Eye**

The roughly circular area of comparatively light winds that encompasses the center of a severe tropical cyclone. The eye is either completely or partially surrounded by the eyewall cloud.

### **Eyewall**

An organized band or ring of clouds that surround the eye, or light-wind center of a tropical cyclone.

### **Hurricane**

An intense tropical weather system of strong thunderstorms with a well-defined surface circulation and maximum sustained winds of 74 mph (64 kt) or higher

### **Hurricane Local Statement:**

A public release prepared by local National Weather Service offices in or near a threatened area giving specific details for its county/parish warning area on (1) weather conditions, (2) evacuation decisions made by local officials, and (3) other precautions necessary to protect life and property.

### **Hurricane Warning**

An announcement issued by the National Weather Service (NWS) that hurricane conditions (sustained winds of 74 mph or higher) are *expected* somewhere within the specified area. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane warning is issued 36 hours in advance of the anticipated onset of tropical-storm-force winds.

### **Hurricane Watch**

An announcement issued by the National Weather Service (NWS) that hurricane conditions (sustained winds of 74 mph or higher) are *possible* within the specified area. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane watch is issued 48 hours in advance of the anticipated onset of tropical-storm-force winds.

### **Landfall**

The intersection of the surface center of a tropical cyclone with a coastline.

### **Major Hurricane**

A hurricane that is classified as Category 3 or higher. See the Saffir-Simpson Hurricane Wind Scale on Page 9.

### **Storm Surge**

An abnormal rise in sea level accompanying a hurricane or other intense storm, and whose height is the difference between the observed level of the sea surface and the level that would have occurred in the absence of the cyclone. Storm surge is usually estimated by subtracting the normal high tide from the observed storm tide.

### **Storm Tide**

The actual level of sea water resulting from the tide combined with the storm surge.

### **Tropical Depression**

An organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds of 38 mph (33 kt) or less



### Tropical Storm

An organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39-73 mph (34-63 kt)

### Tropical Storm Warning

An announcement issued by the National Weather Service (NWS) that tropical storm conditions (sustained winds of 39 to 73 mph) are *expected* somewhere within a specified area within 36 hours.

### Tropical Storm Watch

An announcement issued by the National Weather Service (NWS) that tropical storm conditions (sustained winds of 39 to 73 mph) are *possible* within a specified area within 48 hours.

### The Saffir-Simpson Hurricane Wind Scale

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph	<b>Very dangerous winds will produce some damage:</b> Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph	<b>Extremely dangerous winds will cause extensive damage:</b> Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3	111-129 mph	<b>Devastating damage will occur:</b> Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.

4	130-156 mph	<b>Catastrophic damage will occur:</b> Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5	157 mph or higher	<b>Catastrophic damage will occur:</b> A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

The [Saffir-Simpson Hurricane Wind Scale](#) is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage.

Reference: National Weather Service – National Hurricane Center

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**TROPICAL WEATHER NOTIFICATIONS**

The UH Office of Emergency Management monitors tropical weather throughout the hurricane season and communicates significant weather threats to University Leadership. If a tropical system is a threat to the UH campus, then the University will utilize the UH ALERT Emergency Notification System to communicate any changes in campus status, closure, etc. It is critical that all personnel have current contact information in the system to ensure they receive UH ALERTs. For information on how to update your contact information or more information on the UH ALERT Emergency Notification System, please visit the [UH ALERT website](#).

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## **PROTECTIVE ACTION DECISIONS**

1. As stated above, the UH Office of Emergency Management (OEM) will monitor the weather and will inform University Leadership of potential threats of tropical weather.
2. When tropical weather threatens the area, it may be necessary for UH to suspend some or all operations in order to protect lives and property. Closure decisions will be made by the President or his/her designee as outlined in the UH [Emergency Management Plan](#).
3. Departments will monitor information provided by the UH Leadership regarding potential or actual closures and be prepared to suspend departmental operations. Some departments will be required to continue certain essential functions.
4. Notification of a class cancellation or campus closure will be communicated through the UH ALERT Emergency Notification System described in the previous section. The official source for UH emergency information is the UH ALERT website ([www.uh.edu/emergency](http://www.uh.edu/emergency)). Closure and re-opening information along with other important statements will be posted on this website.

## **SECTION III - ORGANIZATION**

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### **UH EMERGENCY OPERATIONS CENTER (UHEOC)**

#### **Purpose**

An Emergency Operations Center (EOC) is the physical location at which the coordination of information and resources to support incident management activities and on-scene operations normally takes place. The primary functions of an EOC are information gathering and sharing, coordination, communication, resource tracking and assessing priorities for the overall response.

#### **EOC Responsibilities during an Activation:**

1. Gather information from various internal and external partners to create a common operating picture and increased situational awareness for University Leadership to determine campus priorities.

2. Coordinate with the EOC Liaison from each of the departments who play a critical role in incident response in the event of a major campus emergency.
3. Share information with key partners through the form of Situation Reports and keep University Leadership informed.
4. Serve as a hub of information by coordinating with all keys areas involved in the response.
5. Ensure documentation is completed for Incident Action Plans, Situation Reports, and Resource Requests.

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## **RIDE-OUT TEAM**

### **Purpose**

The University of Houston has some university functions that must remain operational during an emergency or incident. Critical infrastructure components to the university's function, such as utility services and information technology services are critical operations that may be rendered inoperable by an emergency incident. Therefore, if a failure occurs, continuity and recovery plans must be developed to assure prompt restoration of services. In order to maintain continuity, the University of Houston has developed the ride-out team program. The ride-out teams will remain on campus working to ensure that critical infrastructure components are uninterrupted during an emergency incident.

For more information on the Ride-Out Team Program, please see the Ride-Out Team Guide at <https://uh.edu/emergency-management/planning-and-response/ride-out-teams/>.

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## **UH DEPARTMENTS**

Each UH Department is responsible for developing their own emergency plan and executing their own preparedness and recovery actions, including monitoring information provided by University Leadership. For more information regarding building an Emergency Response Plan, please visit <https://uh.edu/emergency-management/planning-and-response/building-department-preparedness/>.

In addition, each division, department, area and unit should have a Continuity of Operations Plan which addresses how essential functions will continue or resume in the event an interruption in operations occurs. More information can be found here: <https://www.uh.edu/emergency-management/planning-and-response/business-continuity-plans/>.

The UH Hurricane Response Guide may serve as template for departments to develop their own department-specific hurricane planning procedures. The attachments to the UH Hurricane Response Guide may serve as tools such as forms and checklists that can help with the development and execution of hurricane preparedness procedures. These attachments may be incorporated into departmental hurricane plans.

## **SECTION IV – ASSIGNMENT OF RESPONSIBILITIES**

### **PRE-STORM**

#### **UHEOC will:**

1. Monitor tropical weather forecasts.
2. Monitor Harris County and City of Houston actions as well as other local partners in regards to closures and evacuations.
3. Provide information to University Leadership on potential hurricane threats.
4. Prepare for possible Suspension of UH Normal Operations.
5. Coordinate with Ride-Out Teams as required

#### **UH Departments will:**

1. Monitor tropical weather forecasts during hurricane season.
2. Monitor Official UH communications and notices regarding potential tropical weather threats.
3. Review departmental hurricane plans.
4. Refuel university vehicles. During hurricane season, it is recommended that departments maintain fuel tanks at half-full as a minimum in vehicles.

5. If the department has a Ride-Out Team, coordinate with the UH Office of Emergency Management and ensure completion of all requirements in the Ride-Out Team Guide in advance of hurricane season.
6. Alert Ride-Out Team personnel (if applicable) and others with essential functions and specific roles to ensure their ability to fulfill their obligations.
7. Prepare for possible Suspension of UH Normal Operations.

For more information and to view the “Pre Storm/ Incident Checklist Template” please visit:

<https://www.uh.edu/emergency-management/planning-and-response/building-department-preparedness/hurricane-preparedness>.

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## **UH SUSPENSION OF NORMAL OPERATIONS**

### **UHEOC will:**

1. Coordinate with University Communications regarding campus-wide notification of the suspension of normal operations.
2. Assist in the coordination of Ride-Out Teams as needed
3. Document Ride-Out Team personnel that are expected to report to campus.
4. Document and assist in coordinating university hurricane preparations.
5. Coordinate with EOC Liaison when necessary.

### **UH Departments will:**

1. Complete departmental hurricane preparation checklist. (Attachments 2 and 3 serve as possible templates)
2. Complete a general survey around each building and rooftop where accessible.
3. Secure facilities, loose items and equipment.
4. Follow guidance from University Information Technology regarding computer and data systems including back-up and storage of data.
5. Park fueled vehicles in a safe, secure location. Interior sections of parking garages or in parking lots away from trees are appropriate locations. Vehicle actions should be logged on Attachment 1 of this document and posted in the department/unit area.

6. Report all Ride-Out Team members' status to UHEOC by completing the Ride-Out Team Check-In form (to be sent by UHEOC via a Veoci link, or a manual form found on the Ride-Out Team [website may be used](#)). This form includes the contact information for Departmental Ride-Out Team Supervisor/Lead.

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## **DURING STORM**

### **UHEOC will:**

1. Continue to monitor the weather and current conditions impacting UH as well as the City/County.
2. Obtain information from ride-out team personnel regarding current situation or any issues on campus.
3. Prepare and distribute situation reports to the University Leadership and Ride-Out Team members.
4. Provide support to any emergency responses or life safety issues.

### **Ride-Out Teams will:**

1. Attempt to keep essential operations functioning
2. Keep UHEOC apprised of Ride-Out Team status through their Ride-Out Team Lead and report any critical information for inclusion in official Situation Report.
3. Seek shelter indoors in a secure and safe location if/when conditions become too dangerous to continue functions. **Note: If departmental staff must remain on campus to maintain essential functions (ride-out team members), additional planning beyond the scope of this document is required for the department. Plans should address the needs of the critical operations and employees.** Employee safety during an event is paramount. See Ride-Out Team Guide for more information at:  
<https://www.uh.edu/emergency-management/planning-and-response/ride-out-teams/>.

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## **POST-STORM**

### **UHEOC will:**

1. Continue to monitor the weather and current conditions impacting UH as well as the City/County.
2. Continue to obtain information from ride-out team personnel regarding current situation or any issues on campus.
3. Continue to prepare and distribute situation reports to the University Leadership and Ride-Out Team members.
4. Work with University Communications in order to communicate with UH students, faculty, and staff regarding the status of the campus.
5. Support Facilities Management as needed in coordinating damage assessments.
6. Coordinate with EOC Liaison when necessary.
7. Coordinate the demobilization process when appropriate.

**Ride-Out Team members will:**

1. With the direction of the EOC and Facilities, provide rapid restoration of critical infrastructure components immediately following the disaster.
2. Conduct a preliminary damage assessment of their building and report the information to the UHEOC. Appropriate documentation should be completed. Personnel should not enter buildings that are suspected or determined to be unsafe. Any dangerous conditions or issues requiring urgent response should be reported immediately to the UH Police Department by calling 713-743-3333. It is important for departments to document damage, including photographs, in order to recover any potential insurance or FEMA reimbursement.

**UH Departments will:**

1. Monitor and follow guidance from University Leadership and local officials regarding any directives and/or procedures that may be in place following a storm.
2. Monitor Official UH communications and notices. These notices may include the status of the campus and information regarding when the university will resume normal operations.
3. Account for the well-being of all faculty and staff once the storm is over. If a department is unable to fulfill its functions as a result of damaged facilities, equipment or lack of personnel, the department may need to activate its Continuity of Operations Plan (COOP).



## **SECTION V – GUIDE DEVELOPMENT AND MAINTENANCE**

### **GENERAL**

The UH Hurricane Response Guide was developed by the UH Office of Emergency Management (OEM) of the UH Department of Campus Safety. UH OEM is responsible for maintaining this guide annually.

Each Department is responsible for developing their own emergency plan with details specific to hurricane preparation, response and recovery. As stated previously, if the department requires staff to remain on campus in order to maintain essential functions (i.e. to serve on the Ride-Out Team), additional planning beyond the scope of this document is required for the department. These plans should address the needs of the critical operations and employees as well as steps to ensure and promote safety. These departmental plans should be reviewed and updated annually. In addition, coordination with the UH Office of Emergency Management is required in advance of hurricane season for proper ride out team credentialing and training.

## **SECTION VI - REFERENCES**

### **REFERENCE LIST**

- University of Houston Emergency Management Plan
- The State of Texas Hurricane Annex
- Harris County Office of Homeland Security and Emergency Management Hurricane Plan
- University of Florida, Departmental Tropical Weather Response and Recovery Plan
- National Weather Service
- National Hurricane Center

## **SECTION VII - RESOURCES**

### **RESOURCE 1 – ATLANTIC HURRICANE NAMES**

For a listing of Atlantic hurricane names, please visit the [National Hurricane Center Names website](#).

(Link: <http://www.nhc.noaa.gov/aboutnames.shtml>)

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## **RESOURCE 2 – SOUTHEAST TEXAS REGIONAL EVACUATION ZIP ZONE MAP**

Harris County offers evacuation and zip zone information online. To identify the most up to date information regarding zip zone evacuations or recommended evacuation routes, please visit the [Houston Galveston Area Council \(HGAC\) Hurricane Evacuation Planning website](#).

(Link: <https://www.h-gac.com/hurricane-evacuation-planning>)

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## **RESOURCE 3 – EMERGENCY PREPAREDNESS SUPPLIES CHECKLIST**

An Emergency Preparedness Supplies Checklist is provided by the University of Houston Office of Emergency Management, and can be found on the [UH Office of Emergency Management website](#).

(Link: <https://uh.edu/emergency-management/planning-and-response/building-department-preparedness/hurricane-preparedness/index>)

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## **RESOURCE 4 – BUILDING EMERGENCY RESPONSE PLAN TEMPLATE**

The [Building Emergency Response Plan Template](#) provides the guidelines in order to help departments develop an Emergency Response Plan for their building(s). Please note that if your building houses multiple departments, that representatives from each department should be included in the development of your Building Emergency Response Plan.

(Link: <https://uh.edu/emergency-management/planning-and-response/building-department-preparedness/>)

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## **RESOURCE 5 – CONTINUITY OF OPERATIONS PLANS**

The University of Houston must ensure its operations are performed efficiently with minimal disruption through a wide range of emergencies. The Continuity Planning Program ensures that the organization is capable of conducting its essential mission and functions under all threats and conditions. For assistance in developing your Continuity of Operations Plan, please visit this [website](#).

(Link: <https://uh.edu/emergency-management/planning-and-response/business-continuity-plans/>)

**SECTION 5 - ATTACHMENTS**

**ATTACHMENT 1 – VEHICLE ASSIGNMENTS FOR TROPICAL WEATHER**

**\*\*\*When completed: copy and store in a safe location\*\*\***

This form is for logging where vehicles have been securely parked and where the keys are located in preparation for tropical weather.

Departments will park fueled vehicles in a secure location. Interior sections of parking garages or in parking lots away from trees may identified as potential locations. Normally, this task should be completed by the vehicle’s primary user.

Vehicle #	Vehicle Parking Location	Vehicle Key Location	Responsible Person

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## ATTACHMENT 2 – LABORATORY AND RESEARCH AREAS CHECKLIST

### PREPARATIONS FOR TROPICAL WEATHER/HURRICANES

Departments are responsible for taking protective actions in their own laboratories. This checklist is designed to identify suggested tasks and assignment of responsibilities for preparing laboratory areas. Not all items are appropriate for all areas. Departments and researchers should add actions specific to their individual laboratories if needed. **The checklist should be completed as a part of the Departmental Hurricane Response Plan.**

When impacts from tropical weather are possible, consider necessary preparations to suspend ongoing experiments involving biological materials, radioactive materials and hazardous chemicals. When UH suspends normal operations, postpone operations in the laboratory, secure equipment and complete the checklist. **Please note that personnel should not stay in the laboratory during a storm if UH has suspended normal operations.**

Additional mitigation steps can be taken year-round to reduce impacts from tropical weather and other incidents, including:

- Ensure all chemical and waste containers are clearly labeled and sealed
- Keep chemical, radiological and biohazardous materials in your inventory to a minimum. Ensure inventory lists of such materials are up to date.
- Dispose of hazardous wastes and old chemicals routinely to minimize accumulation of hazardous materials in your facility.
- When moving chemicals, update storage locations on inventories as internal records and make a remote copy of this record. Spill supplies should be moved with applicable chemicals and safeguarded from damage as well.
- Ensure all hazardous materials are stored in appropriate storage locations. Laboratories with exterior windows should identify a secure area for storage of water reactive chemicals, radioactive materials and biohazardous agents. Ideally, materials with significant, potential hazard should be moved to interior rooms. (e.g. – solvents containing reactive metals, glove boxes containing water/air reactives)

- If dry ice will be needed pre- or post-incident, document vendor information, payment method and delivery or pick-up options. Note, dry-ice should not be transported in a sealed container or closed vehicle for safety of the occupants.
- Maintain a supply of plastic, waterproof containers to store reactive chemicals, lab notes, research documentation, electronic data and other important materials.
- Plan in advance how to ensure the protection of valuable research equipment, samples and data.
- Maintain record keeping current photos of the lab and essential supplies kept in the lab in a shared file with inventory listings.
- Maintain a stock of critical supplies to prevent disruptions. Examples are liquid nitrogen, helium, carbon dioxide. Keep in mind that deliveries may not be possible for an extended period.
- Update and distribute emergency and contact information to laboratory personnel and Environmental Health and Safety. Regularly maintain emergency call list on the laboratory door.

## **LABORATORY AND RESEARCH AREAS CHECKLIST**

### PREPARATIONS FOR TROPICAL WEATHER/HURRICANES

<b>96 HOURS BEFORE LANDFALL</b>	
	Fuel - Department Vehicle/Emergency Generator
	Review Emergency and Continuity Plans and Procedures
	Initial Discussion/Meetings Regarding the Incident and Potential Departmental Action
	Review Contact Lists
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Review and Replenish if necessary the Emergency Supplies (Food/Water/Laboratory consumables/etc.)
	Place Ride Out Team on Notice (If Applicable)

	Monitor the Local and National Weather
	Ensure IT Systems & Critical Research Data are Backed Up on a device not on campus
<b>72 to 48 HOURS BEFORE LANDFALL</b>	
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Monitor the Local and National Weather
	Ensure Laboratory consumables /critical supplies are in place
	Check Building/s for Readiness
	Turn down refrigerators and freezers to the lowest practical settings and plug into emergency power where available.
	Place recording maximum/minimum thermometers in refrigerators and freezers containing temperature critical supplies and samples, if needed
	Plug incubators into emergency power outlets if you must maintain samples in vitro.
	Cover and secure or seal vulnerable equipment with plastic.
	Remove or secure equipment from outdoor and rooftop locations.
	Ensure arrangements have been made for the care and feeding of laboratory animals. Follow recommended actions of UH Animal Care Operations.
	In areas subject to flooding, relocate or elevate equipment, chemicals and other important items from the window and floor to prevent damage.
	Secure radioactive isotopes, biological agents, and chemicals to prevent breakage and release (may require over pack, plastic and/or waterproof containers.
	Fill dewars and cryogen reservoirs for sample storage and/or critical equipment.
	Remove regulators and cap gas cylinders, except for CO2 needed to maintain biological samples. Ensure all cylinders are secure. Observe all safety precautions while transporting gas cylinders.
	Due to the possibility of power outages, clear all items from fume hoods and biosafety cabinets.
	Protect/secure valuable files, research samples and notebooks in place or move to a safer location.

	Protect notebooks and secure samples/data as necessary for colleagues unable to reach the lab.
	Update emergency contact information including notification list on lab door. Add and expand temporary contact information if staying at a different location during storm.
	Close and latch (or secure with tape if needed) filing cabinets and cupboards.
	If appropriate, complete Attachment 1 – Vehicle Assignments for Tropical Weather.
	If appropriate, complete Attachment 3 – Pre- Storm/ Incident Checklist Template.



**ATTACHMENT 3 – PRE-STORM/INCIDENT CHECKLIST TEMPLATE**

**Pre-Storm/Incident Checklist Template**

This template should be utilized to create a department-specific pre-storm checklist with the tasks that should be completed for each specific timeframe. The tasks listed are samples for example purposes only. **Departments are encouraged to add additional items that are specific to that department/area.**

<b>96 HOURS BEFORE LANDFALL</b>	
	Fuel - Department Vehicle/Emergency Generator
	Review Emergency and Continuity Plans and Procedures
	Initial Discussion/Meetings Regarding the Incident and Potential Departmental Action
	Review Contact Lists
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Review and Replenish if necessary the Emergency Supplies (Food/Water/etc.)
	Place Ride Out Team on Notice (If Applicable)
	Monitor the Local and National Weather
	Ensure IT Systems are Backed Up
<b>72 HOURS BEFORE LANDFALL</b>	
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Monitor the Local and National Weather
	Ensure Supplies are in place
	Check Building/s for Readiness
	Review Mutual Aid Agreements (If Applicable)
<b>48 HOURS BEFORE LANDFALL</b>	
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Monitor the Local and National Weather

	Place Internal/External Dependencies (Contractors, Etc.) on Notice
	Clear Refrigerators and Freezers
	Ensure access to necessary systems and vital records for personnel to work from home (if applicable).
<b>24 HOURS BEFORE LANDFALL</b>	
	Send Ride-Out Team Members Home – Make Family Arrangements & Gather Go Kits
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Monitor the Local and National Weather Resources
	Refuel University Vehicles
	Begin Securing Facility if Possible
	Cover and Secure Vulnerable Equipment and Files with Plastic
	Move Vulnerable Equipment, Subject to Flooding/Damage, to Secured Area
<b>12 HOURS BEFORE LANDFALL</b>	
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Ride-Out Team Lead Make Contact with the Office of Emergency Management
	Ensure the Battery Powered Devices are Operational
	Continue Securing Facility
	Park University Vehicles in Secured Location
	Secure all Windows and Doors
<b>4 HOURS BEFORE LANDFALL</b>	
	Monitor the UH Emergency Website ( <a href="http://www.uh.edu/emergency">www.uh.edu/emergency</a> )
	Ride-Out Team Lead Make Contact with the Office of Emergency Management
	Ensure Facility is as Secure as Possible