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Introduction: Hurricane Season Is Expanding—and So Are the Risks

Though hurricane season is technically June 1 to November 30 in the Atlantic and May 15 to November 30 in the Pacific, recent research strongly suggests that hurricane season is getting longer.

In-depth studies on hurricane season trends over the last decade, particularly in the last eight years, have shown a concerning pattern: named storms are forming before the official start of hurricane season on June 1.1 The key driver behind this extended hurricane season is the warming of ocean waters due to climate change. Ocean surface waters need to reach approximately 80°F to support storm development. Today, oceans reach the storm-forming temperature threshold earlier in the spring and remain warm later into the autumn. This prolonged period of warm ocean temperatures provides an extended window of opportunity for hurricanes to form and persist. Studies also show that hurricanes are intensifying faster because of climate change.2

The implications of an extended hurricane season are profound, impacting disaster preparedness, insurance policies, and emergency response efforts. As storms continue to materialize outside the traditional season, businesses face heightened challenges in maintaining readiness and resilience.

In this whitepaper, we will share an overview about hurricanes, discuss the types of damage that hurricanes can cause, consider how restoration contractors can help businesses recover, and offer a checklist of preparation steps before the hurricane season begins.

- 1: Louisiana State University
- 2: Department of Energy's Pacific Northwest National Laboratory (PNNL)

Are Hurricane Forecasts Accurate?

Understanding the accuracy and reliability of hurricane forecasts is crucial for effective preparedness. Over the past five years, reputable organizations like the National Hurricane Center, National Oceanic and Atmospheric Administration (NOAA), and other meteorological agencies have made significant strides in forecasting accuracy. Advances in technology, including sophisticated computer models and satellite imaging, have enhanced our ability to predict hurricane paths and intensity. Real-time data from hurricane-hunting aircraft, buoys, and satellites provide valuable information for meteorologists.



But these storms are still unpredictable, depending on shifts in atmospheric conditions, sea surface temperatures, and interactions with land. The devastation caused by storms like Hurricanes Harvey, Irma, and Maria underscores the importance of continual improvement in prediction methodologies.

Forecasts for hurricane tracks, the path a hurricane is expected to follow, have become quite accurate. Meteorologists use sophisticated computer models that consider atmospheric conditions, ocean temperatures, and historical data to predict where a hurricane will go. However, there can still be some uncertainty, especially when it comes to forecasts beyond five days.

Predicting the intensity of a hurricane (how strong it will be in terms of wind speed and central pressure) is more challenging than forecasting its track. Intensity forecasts have improved but remain less accurate compared to track forecasts. Rapid intensification, where a hurricane's strength suddenly increases, can be particularly difficult to predict.

For 2024, meteorologists at Colorado State University have predicted an abnormally active season in the Atlantic basin, with 23 named storms, 11 of which could develop into hurricanes and five potentially reaching major hurricane status (Category 3 or higher).³ That's a significant jump from the average: 14 named storms, with seven hurricanes and three major storms.

Forecast Parameters	CSU Forecast for 2024 Released April 4th	Average for 1991-2020
Named Storms	23	14.4
Named Storm Days	115	69.4
Hurricanes	11	7.2
Hurricane Days	45	27.0
Major Hurricanes	5	3.2
Major Hurricane Days	15	7.4
Accumulated Cyclone Energy (ACE)+	210	123

Hurricanes are categorized by their wind speeds using the Saffir-Simpson Hurricane Wind Scale, a system ranging from Category 1 (with winds of 74 to 95 mph) to Category 5 (with winds exceeding 157 mph).

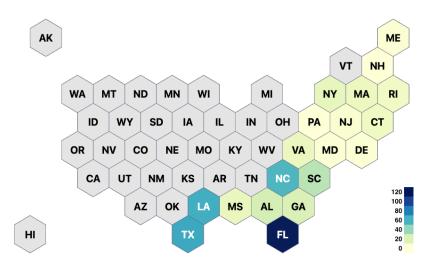
Leading disaster recovery service providers provide their national customers with weather tracking and alert services to provide real-time notifications for developing storms and other natural disasters. Even with improved forecasting, it is crucial for businesses to stay informed, heed official warnings, and establish preparedness plans to mitigate the impacts of these powerful storms.

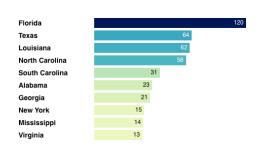
States Most Vulnerable to Hurricane Damage

Even though hurricanes arise over water, they don't confine themselves to coastlines; they traverse entire states and beyond. Take Hurricane Katrina in 2005, which left a trail of record-breaking insured losses totaling \$65 billion across communities in Florida, Alabama, Mississippi, Texas, and Georgia.

But the South is not the only region affected. Hurricane Sandy's unprecedented path along the East Coast in 2012 and Hurricane Ivan's reach into the Northeast in 2004 highlight the capacity of these storms to affect regions traditionally considered less vulnerable to tropical cyclones.

Top 10 States Where Hurricanes Made Landfall 1851 to 2022





Source: World Population Review

Types of Hurricane Damage

Hurricanes can cause a wide range of damage due to their strong winds, heavy rainfall, storm surges, tornadoes, landslides, mudslides, erosion, and power outages. The types of damage caused by hurricanes can vary depending on the storm's intensity, size, and where it makes landfall.

The costs of hurricane damage can be staggering, resulting in billion-dollar losses. For example, Katrina in 2005 and Harvey in 2017 caused an estimated \$125 billion in damages, making them the costliest hurricanes in U.S. history.

Potential costs include repairing or replacing damaged buildings, restoring infrastructure, emergency response and recovery efforts, and lost business revenue. Additionally, the long-term economic impacts of hurricanes, including increased insurance costs, can raise the overall cost of these disasters. Read further for some types of damage that hurricanes typically cause, along with a description of how property owners can address them.

Costliest Atlantic Hurricanes			
Rank	Hurricane	Season	Adjusted Cost
1	3 Katrina	2005	\$198.8 Billion
2	4 Harvey	2017	\$158.8 Billion
3	4 lan	2022	\$117.4 Billion
4	4 Maria	2017	\$114.3 Billion
5	1 Sandy	2012	\$87.8 Billion
6	4 Ida	2021	\$83.9 Billion
7	4 Irma	2017	\$63.5 Billion
8	5 Andrew	1992	\$59.9 Billion
9	2 Ike	2008	\$42.9 Billion
10	3 Ivan	2004	\$33.6 Billion

Source: NOAA

WATER DAMAGE

Water damage is caused by storm surges, heavy rainfall, and flooding. Signs of water damage include wet floors, damp walls and ceilings, and visible water stains.

Businesses need to address water leaks and other water-related damage immediately to prevent mold growth and reduce the risks of more severe structural problems. Drying out the affected area, removing any standing water and excess moisture from the air and surfaces, and replacing damaged materials are priority actions to take once a hurricane subsides.



MOLD

The high humidity and moisture levels from heavy rainfall create ideal conditions for mold to grow. Signs of mold include a musty odor, visible mold growth on walls or ceilings, and discoloration or staining on surfaces.

Mold can be a serious health hazard, particularly for those with allergies or respiratory problems. A professional mold remediation company can remove mold and stop it from growing.



WINDOW DAMAGE

The higher the winds of a hurricane, the more likely windows are to be damaged or blown out entirely. Repairing windows is vital to protect against water and mold damage, protect building contents, and keep energy bills low during the summer months.

Businesses with property in hurricane-prone areas may want to invest in heavy-duty hurricane glass to reduce the need for future repairs and replacement.

ELECTRICAL DAMAGE

Hurricanes can cause electrical damage, including power outages, damaged wiring, and electrical fires. Signs of electrical damage include flickering lights, sparking outlets, and burning smells.

If you suspect that your business has sustained electrical damage, turn off the power to the affected area and contact a licensed electrician to make any necessary repairs.

CONTENTS DAMAGE

Water can damage important papers, equipment, electronics, and more. Sometimes these items can be replaced, but they are often too costly.

Some restoration services companies offer <u>contents salvaging</u> <u>services</u>, including ultrasonic cleaning, deodorizing, and document drying. Reputable providers will offer to photograph, document, inventory, and sort your items before starting the recovery process.



RECONSTRUCTION

Hurricanes can cause significant structural damage to roofs, walls, and foundations. Signs of structural damage include visible cracks or shifting in the foundation, bowed walls or ceilings, and damaged or missing roof tiles. Roof damage from high winds, water, and flying debris must be addressed quickly to seal the building's envelope and prevent further damage from exposure to the elements. Roof damage from high winds, water, and flying debris must be addressed quickly to seal the building's envelope and prevent further damage from exposure to the elements.

Reconstruction service providers can help restore the property to its original condition. Ask a professional to assess the extent of the damage and determine the appropriate course of action. Top disaster recovery professionals can also recommend ways that businesses can strengthen the integrity of their buildings and roofs to reduce the risks before another storm arises.



Insurance Policy Coverage

Any individual, homeowner, or business located in a hurricane-prone area should consider insurance policies that include coverage for hurricanes, floods, and windstorms. Even areas farther from the coast can be impacted by hurricanes, making comprehensive insurance coverage essential for all residents and businesses. Researching common coverages and discussing options with insurance providers can help make informed decisions about hurricane insurance needs.

Here is a list of commercial and residential insurance policies to consider.

COMMERCIAL INSURANCE COVERAGE



Commercial Property Insurance

Standard commercial property insurance policies often exclude coverage for hurricanerelated damages. Adding a hurricane or flood insurance rider can help cover losses
caused by hurricanes, including damage to buildings, structures, office contents, and
electronic equipment. Business interruption insurance can provide additional coverage for
ongoing expenses if operations are hindered or halted due to a hurricane.



Construction Site Policies

• For ongoing construction projects, builder's risk insurance is crucial. This insurance covers damages to insured properties and sites resulting from hurricanes, windstorms, and other weather-related events. Builder's risk policies are tailored to specific projects. Review them carefully to maximize coverage and recovery.

RESIDENTIAL INSURANCE COVERAGE



Flood insurance

Standard homeowners insurance policies typically do not cover flood damage, including
water from storm surges. Flood insurance must be purchased separately through the
National Flood Insurance Program or private insurers. Note that flood insurance policies
often have a 30-day waiting period before taking effect.



Windstorm insurance

• Standard homeowners' policies generally cover wind damage, including hurricanes, but residents in high-risk coastal areas may need additional windstorm insurance. Windstorm insurance also covers hail damage and can be added as a rider to existing policies.



Renters Insurance

• Renters' policies typically cover wind damage, but flood damage is usually excluded, especially in high-risk areas. Review your policies to ensure you have adequate coverage.

Preparation and proactive insurance planning are key to weathering the storm and recovering swiftly after a hurricane strikes.

Pre-Season Preparation Checklist

For residential properties, pre-season preparations may include roof inspections, securing loose outdoor items, and creating emergency supply kits. Commercial entities may need to engage with disaster recovery companies to develop tailored emergency response plans and strategies for rapid resource mobilization.

Here are some steps for property owners and managers to take at every stage of storm preparation, from before a hurricane or tropical storm is forecast through its aftermath.

BEFORE A STORM

ASSESS

- Conduct a storm preparedness assessment.
 Take stock of who and what will be affected, including your people, suppliers, and business assets.
- Review any applicable insurance policies, including disaster and flood insurance policies, to determine whether you may be able to use them for applicable losses. If you do not already have a hurricane, flood insurance, or business interruption rider, consider adding one to your policy.
- Note any potential hazards and vulnerabilities, such as power lines.

PREPARE

- Build an employee contact list, including employees' cell phone numbers.
- Inventory critical assets, including data and technology, and the potential impact on those assets. Establish a plan for backing up your data and servers. Take photographs of your assets to establish their condition and support any claims with your insurance company.
- Consider obtaining a backup generator.
- Inspect and repair the exterior of the facility, including its roof, gutters, windows, weatherproofing, and the like.

COMMUNICATE

 Form a cross-organization emergency management team consisting of your safety, security, human resources, and communications teams. Create and test an emergency communication system. Make sure that alerts are dispersed on multiple channels including:



PHONE



TEXT



SOCIAL MEDIA

- Consider how you will handle disruptions in your supply chain and travel in the event of floods and other damage, including how you will notify customers, suppliers, and other stakeholders of any potential business interruptions.
- Establish an emergency response plan that includes:
 - 1. How to identify and monitor threats and determine when action is required to secure people and property.
 - Assigning specific responsibilities for activating each part of the emergency response plan, including contacting employees and vendors.
 - 3. Testing the plan with your emergency management team.

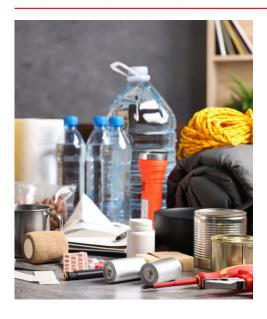
AS A STORM APPROACHES

OUTDOOR & PROPERTY PREPARATION

- Arrange sandbags outside doors and other openings to your facility.
- Board up any windows and doors.
- Make sure you have an alternative power source to keep all of your security assets working, including fire alarms, burglar alarms, and cameras.
- Secure any outdoor equipment or materials that could become airborne during a hurricane, such as signage, outdoor furniture, and anything else that could be picked up by high winds and damage your property or neighboring properties.
- Remove all loose outdoor debris; relocate all nonessential outdoor equipment indoors.
- Turn off gas and water.
- Disconnect all electrical mains.
- Fill fuel tanks of generators, fire pumps, and company-owned vehicles.



INDOOR & PERSONAL ITEMS PREPARATION



- Relocate important documents, insurance policies, and IT equipment to a safe location, either away from windows and in high locations or in a different facility.
- Instruct employees to take home any personal belongings.
- Back up all computers and servers and turn them off.
- Double-check your first-aid kits and disaster kits to make sure they are fully stocked.
- If employees are at risk, make sure you have adequate first-aid supplies, flashlights, water bottles, and nonperishable food items.
- Follow your emergency planning protocol and set in motion your chain of communication, notifying all employees of the impending storm. Keep employees, suppliers, and other stakeholders informed of your plans.

DURING A STORM

- Stay safe in a secure location, off-site if possible.
- Continue monitoring the news for storm updates and follow all safety measures mandated by local authorities.
- Keep employees informed of the storm's progress and facility status.
- Monitor any equipment that must remain online.
- Turn off switches if a power outage occurs.

AFTER A STORM

- Monitor conditions, including road conditions, and listen for instructions from authorities before entering to survey the damage and secure the worksite.
- Check on your employees and make sure everyone is accounted for; offer support as necessary.
- Call your disaster recovery provider to initiate post-storm services. They can help you with the following:
- Patrol the property for roof leaks, pipe breakage, structural damage, and other problems.
 - Clear roof drains and gutters.
 - Remove debris from the roof and other outdoor locations.
 - Begin salvage and restoration efforts immediately to prevent further damage.
- Restart your business operations.

The Right Disaster Recovery Partner Can Keep Your Business on Track

Partnering with a disaster recovery firm is essential for safeguarding business operations. By proactively engaging with vendors before a storm arises, businesses can mitigate downtime and accelerate recovery. Choosing a firm in advance can ensure you get priority service when a hurricane strikes and can give you peace of mind that your property is in good hands.

Leading companies offer emergency response agreements that ensure professionals are on call when a disaster looms. Waiting to contact a provider after landfall is often too late, as restoration and recovery services are booked quickly when a warning is issued and are often unavailable for new clients when a storm hits. Moreover, the longer it takes to respond to a disaster, the greater the cost of recovery, so time is of the essence. Additionally, leading national partners can supplement their local teams with mobile emergency response teams that can stage additional equipment and responders to areas experiencing hurricanes.

The evolving nature of hurricane season underscores the importance of continuous improvement in preparedness and response strategies. By prioritizing preparedness, businesses can minimize the impact of hurricanes and safeguard lives, property, and livelihoods.



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