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INTRODUCTION

A hurricane is a type of tropical cyclone or severe tropical storm that can cause catastrophic damage to coastlines and several hundred miles inland. Coastal communities in the United States have suffered from the effects of several hurricanes in recent years, such as Ike in 2008, Irene in 2011 and Sandy in 2012 (the second-costliest storm in U.S. history after 2005’s Hurricane Katrina). However, it hasn’t been since 2005’s Hurricane Wilma that a major hurricane (Category 3 or higher) made landfall in the United States — a nine year drought that’s unprecedented in historical record and could end at any time.

Two common threads among all major hurricane disasters are a lack of awareness and preparation, and, following several relatively uneventful seasons, a natural tendency to become complacent and let one’s guard down. James Franklin, branch chief of the National Hurricane Center’s Hurricane Specialist Unit, summed it up best following the slower than predicted 2013 hurricane season:

"Anybody who lives in the hurricane vulnerable area — including the entire Atlantic coast — is at risk, and really shouldn’t conclude anything about what happened this year or last year or the year before." He went on to say that he’d actually prefer that people prepare for the worst, because regardless of whether they forecast a strong season or a weak one, (a) that doesn’t tell them anything about where the storms will go, which is pretty important, and (b) it only takes one storm to devastate a city (New York Magazine, Oct. 2013).

Illustrating why it’s never too early to be prepared, nearly three weeks before the official start of the 2015 Atlantic Hurricane Season, Tropical Storm Ana made landfall along the South Carolina coast to become the first named storm of the season.

In this 2015 Hurricane Preparedness Guide, we separate fact from fiction about common hurricane myths, look at the top US hurricane hotspots, provide a hurricane preparedness checklist and share viable methods for enhancing emergency communications to facilitate a more effective response that can in turn save lives.
5 Hurricane Myths
We’re going to shed light on five of the more persistent hurricane myths that if believed, can put you, your organization and loved ones at risk. Knowing fact from fiction can save lives and property.

Myth #1: Winds are the deadliest aspect of hurricanes.

Fact: Wind accounts for only 5 to 10 percent of U.S. tropical cyclone fatalities.

- Three out of four U.S. deaths from tropical cyclones are from water.

- The water rise generated by a hurricane or tropical storm is the greatest U.S. tropical cyclone killer, making up 50 percent of all tropical cyclone-related deaths.

- Rainfall flooding (not from storm surge) claims another one in four U.S. lives from tropical cyclones.

Myth #2: Forecasters predict many named storms & hurricanes, so the season will be more dangerous.

Fact: The landfalls are what matter for impact, not just the numbers.

There’s no strong correlation between the total number of storms or hurricanes and landfalls in any given season, and it only takes one devastating hurricane to make an otherwise uneventful season feel active.

Good to Know
A rule of thumb for hurricane preparedness: "Hide from the wind, run from the water."

Be Prepared:
It's important to be prepared for hurricanes and tropical storms every year, regardless of seasonal forecasts.
For example:

- There were only four named storms in 1983; however, one of them was Hurricane Alicia, a Category 3 hurricane that pounded the Houston-Galveston area and became the first billion-dollar tropical cyclone in Texas history. In 1992, there were seven storms, but one of them was Hurricane Andrew, a Category 5 that at the time was the costliest hurricane in United States history.

- Conversely, the 2013 Atlantic season featured fourteen storms, yet only Tropical Storm Andrea made landfall in the United States. In 2010, the season delivered twelve hurricanes and nineteen named storms — tying 1995 for the third most named storms in any Atlantic season, at the time — but only one tropical storm made landfall in the U.S. during that active season.

**Myth #3: Taping windows is the best method to keep them from breaking.**

**Fact:** Flimsy strips of tape won't strengthen a window and it's actually more dangerous, as pieces of glass that do break are larger.

According to a 2012 survey, almost seven in ten believed taping windows and glass doors is the right thing to do when preparing for a hurricane. While taping the glass does make for easier cleanup by reducing the amount of shatter, strips of tape do not enable glass windows and doors to withstand debris being propelled like missiles during hurricane-force winds. The first fatality from 2004’s Hurricane Charley was a person standing behind a sliding glass door with solar film.

**Plan Ahead:**

Don’t tape windows and glass doors — use tested and approved hurricane shutters or emergency plywood shutters instead.
Myth #4: Hurricanes are only a concern in the tropics.

Fact: One Word: Sandy

While hurricanes winding around the western part of the Bermuda-Azores high typically recurve far enough to the east to avoid impacting the Northeast Seaboard, typically doesn’t mean always. Just ask anyone who was living in New York City, Long Island or along the coast of southeast New England when Hurricane Sandy hit in 2012.

Sandy was the deadliest and most destructive hurricane of the 2012 Atlantic hurricane season, and the second-costliest hurricane in United States history. The storm became the largest Atlantic hurricane on record, with winds spanning 1,100 miles. Damages in the United States amounted to $65 billion and there were 157 fatalities in the U.S.

Myth #5: Hurricanes are only a concern along the coast.

Fact: Talk to anyone in Vermont about Hurricane Irene.

Inland flooding from 2011’s Hurricane Irene damaged and destroyed nearly 2,400 roads, 300 bridges and a half dozen railroads tracks just in southern Vermont. Days later, remnants of Tropical Storm Lee triggered record flooding in the Susquehanna River valley of Pennsylvania and central New York—1,500 miles from where Lee first made landfall in Louisiana.

**Inland Dangers:**
Flooding from rainfall, destructive winds and tornadoes are only a few of the inland dangers of tropical cyclones.
Another storm that debunks the myth that hurricanes are only a concern along the coast is Hurricane Ike. In addition to devastating parts of Galveston Island, Texas in 2008, Ike produced a swath of wind damage 1,600 miles long by 200 miles wide into the Ohio Valley, Upstate New York and even eastern Canada. According to the National Hurricane Center’s final report, at least 28 U.S. deaths were attributed to Ike’s inland high winds. In Ohio, insured losses ($1.1 billion) rivaled those of the 1974 super-outbreak as the state’s costliest natural disaster and almost 2.6 million lost power in Ohio alone.

**Top U.S. Hurricane Hotspots**

Between the years 1851 and 2013, the United States coastline suffered 290 direct hits from hurricanes, 97 of which were classified as major hurricanes. On average, every four years close to seven hurricanes strike the United States, while around three major hurricanes cross the coast every five years.

1. Unsurprisingly, Florida leads the nation as the most hurricane-battered state with 114, 37 being major systems. An interesting fact is what happens after the state experiences a quiet stretch without a hurricane strike. Florida has gone four consecutive seasons without a strike three times (1911-1914, 1988-1991 and 2000-2003), five consecutive seasons in 1980–1984 and, most recently, a record nine seasons without a hurricane strike, 2006–2014.

After many of these stretches, the state experienced devastating hurricanes the following year.

- Following the five-year stretch in 1985, Category 3 Hurricane Elena hit near Pensacola and Hurricane Kate struck northwest Florida.
Following the four-year stretches, Hurricane Andrew struck Miami-Dade County in 1992 and in 2004, four hurricanes struck: Category 4 Charley hit the southwest coast of Florida, Category 3 Ivan hammered Pensacola, and Category 2 Frances and Category 3 Jeanne hit almost the exact same area near Stuart.

2. Texas comes in second with sixty-three hurricanes, nineteen of which were major hurricanes. The state’s most active month is September with 21 total storms, including the devastating Galveston Hurricane of 1900, the greatest natural disaster to ever strike the United States.

An estimated 8,000 people were killed by the Category 4 hurricane, though some estimates put the death toll as high as 12,000. At least 3,500 homes and buildings were destroyed. It was this hurricane that led to the raising of Galveston’s elevation and the building of a concrete seawall to protect Galveston from such destruction in the future.

3. Louisiana is the third U.S. hurricane hotspot at fifty-four hurricanes, with twenty classified major hurricanes.

Hurricane Katrina was the costliest Louisiana hurricane, causing nearly $25.4 billion in insured losses in Louisiana in 2005 (about $30.3 billion in 2013 dollars) not including flood damage covered under the federal government’s National Flood Insurance Program (NFIP).
Katrina was also one of the deadliest hurricanes in Louisiana history with around 1,464 reported fatalities. When the levees protecting New Orleans failed in August 2005, vast expanses of many New Orleans neighborhoods were inundated, making Katrina the largest residential disaster in U.S. history.

**Are you really prepared for a hurricane?**

The following checklist includes several key areas that are oftentimes overlooked when preparing for a critical event like a hurricane. Use the checklist as a guide to evaluate the strength of your hurricane preparedness plan.

**Do you have a plan?**

When a hurricane is poised to strike is the worst time to discover gaps in existing preparedness plans or that they aren’t accessible due to adverse local conditions such as a power outage or network failure.

**Use the following checklist to ensure emergency preparedness plans:**

- Include the names and clearly defined roles of designated internal emergency response teams, including crisis communications and business continuity/disaster recovery.
- Address applicable state/local/federal regulations.
- List available internal and external resources.
- Contain site and building plans.
- Clearly convey evacuation procedures, including maps that show evacuation routes.
- Include processes for assessing damage, along with the contactors, equipment and materials that would be needed following a hurricane strike.
- Detail how you will communicate with management, employees, external stakeholders and the media during and following an event.
- Are stored on an off-site server that can be accessed remotely by multiple team members, from multiple locations.
Do you test and practice your emergency preparedness plan?

☐ Practice your emergency preparedness plan at least once a year.
☐ Involve all internal and external response teams in preparedness drills, including applicable public safety officials.
☐ Utilize an Emergency Notification System to carry out established emergency communication protocols.
☐ Test alarm systems and sirens that will be utilized during an event.
☐ Ensure members of emergency response and/or business continuity teams can be alerted to respond at any hour.

Do you use an Emergency Notification System to increase awareness and hurricane preparedness?

☐ Schedule preparedness messages to be sent at regular intervals.
☐ Transmit preparedness resources and notices of scheduled drills.
☐ Request personnel to verify contact information and preferred methods of communication.
☐ Create hurricane-specific test polls to help employees, including response team members, become familiar with responding to a poll during an actual event.
☐ Remind team leaders and other key personnel to review and update the preparedness plan, if needed.

5 Ways to Enhance Emergency Communications

An organization can utilize many effective communication tools that are designed to work throughout the lifecycle of a hurricane and not solely after one has hit. By leveraging cutting-edge communications technology, such as Regroup Mass Notification, organizations can communicate more effectively before, during and following a hurricane.

1: Automate the Alerting Process
Automating the alerting process will accelerate message delivery and reduce the
margin for human error to better ensure life-saving alerts are not delayed, inaccurate or incomplete. Integrating existing systems and processes with a powerful emergency notification system enables critical alerts, storm updates and other important information to be automatically sent to stakeholders via multiple communication channels.

2: Unify Mass Communications Technology
When a hurricane is poised to strike, staff members don’t have time to spare manually pushing critical alerts to all of the mass communication technologies being leveraged to communicate with stakeholders. Unifying communications enables critical alerts to be sent simultaneously to all communication channels, including: cell phones, landlines, email, social media, digital signage, desktop alerts, PA systems, sirens and more.

3: Leverage Federal Alerting Technology
Alerting authorities can dramatically enhance public safety by leveraging an emergency notification system that fully integrates with federal alerting technology such as IPAWS and NWS/NOAA. When combined with automated messaging functionality, advance warnings, storm updates and the final all-clear can automatically be sent to multiple communication channels, including cell phones (text/voice), landlines, email, social media, website portals, RSS feeds, digital signage and sirens.

4: Target Select Recipients with Geo-Mapping
Geo-mapping functionality empowers alerting personnel to quickly and easily target only recipients in affected areas when a storm impacts or will impact their area. Users simply draw a multi-point polygon shape on a region or regions of a map to reach select recipients that are located within the drawn shape(s).

5: Increase Situational Intelligence with Interactive Polling
Interactive polling is an excellent tool to leverage during critical events like a hurricane. Robust polling capabilities empower users to ask multi-layered questions and give recipients multiple ways to respond, including recording a response. Determine the status of stakeholders and facilitate more effective response efforts, gather on-the-scene reports and confirm availability of critical personnel.
**Next Steps**

1. Now that you have read this preparedness guide, please share it with your colleagues and discuss the ways your organization would benefit from automating severe weather alerts and other emergency communications.

2. If you would like more information on how Regroup’s Mass Notification System can enhance your Emergency Response and Business Continuity Plans, contact us for free consultation. This will enable you to see first-hand how your team can respond faster and more effectively during a time of crisis.

3. Subscribe to our Crisis Management Newsletter to receive information regarding new white papers and upcoming webinars related to best practices in emergency and mass notification.

To help you evaluate the preparedness level of your emergency communications plan, we would like to offer you a free consultation with one of our communications specialists. You will have the opportunity to evaluate your existing emergency communications protocols and discover ways you can further enhance communications during disruptive events. Register now and make sure your organization will be able to weather the next storm.
**Additional Hurricane Preparedness Resources:**

While the 2015 Hurricane Preparedness Guide provides valuable information, it is by no means an all-encompassing guide to hurricane preparedness. Use the guide, along with the following resources, to ensure you and your community are really prepared for the 2015 Hurricane Season.

**How to Prepare for a Hurricane (PDF)**
**Tropical Cyclone Preparedness Guide (PDF)**
**National Hurricane Center Outreach Resources**
**FEMA**
**Ready.gov**
**American Red Cross**
**Hurricanes.gov**
**Weather.gov**

**White Papers**

The Power of Automated Messaging for Emergency Notifications & Business Continuity
Ten Step Guide to Effective Crisis Communications
7 Best Practices in Emergency Notifications
The Emergency Notification System Checklist

**Webinars**

Severe Weather & Emergency Notifications - How to Prepare for 2015
Extreme Weather: Best Practices in Preparation & Communication
About Regroup Mass Notification

Emergency Notifications
In the event of a crisis, Regroup enables agencies to rapidly send emergency notifications to all popular communication methods, as well as to PA systems, digital signage, alert beacons and more. Administrators can enhance their Emergency Response Plan by giving public safety departments access to send, receive and reply to messages using the systems two-way communication capability. Emergency messages can also be saved in advance containing text, audio, video and attached documents.

Day-to-Day Communications
You can effortlessly achieve ROI by utilizing Regroup’s platform to proactively communicate with multiple agencies, departments and area residents. Administrative costs will be reduced by having the ability to send thousands of messages per minute, drastically reducing time and manpower. An added benefit is that it will significantly increase the chances recipients receive messages about events, deadlines and updates due to the higher penetration rate obtained through multi-modal messaging.

Group Messaging
Unify agencies and departments by empowering them with the ability to send messages to mobile devices (text/voice), landlines, email, social media, forums and more. As Regroup allows administrators to create an unlimited amount of groups, as well as send unlimited messages, we boast the most cost-effective group messaging solution by offering a system that enables your community to stay informed and involved in programs and events without incurring extra fees.

Cost-Effective Communication Solutions for State & Local Governments
Clients choose us for the following reasons: Our system is robust yet easy to use, secure yet highly customizable, and because our 100% Software-as-a-Service system not only easily integrates into databases, but also saves you the time and hassle of software installation and server maintenance fees. Contact us today to test drive our platform yourself while on a customized demo tailored to fit your needs.

• Unlimited SMS Text/Voice Alerts/Emails
• Unlimited Group Creation
• User Friendly, One-Click Messaging
• Unparalleled 24/7 Support
• Real-Time, Two-Way Communication
• Seamless Database Integration
• We save clients money, on average 50%
• Secure, Redundant & Reliable Servers
• Easy Website and PA System Integration