

Weather-Ready Nation: Whatever your local risk, here's how to be prepared for the storm ahead

June 3 2021, by Erik Salna



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The approach of summer in the U.S. means that it's time to be ready for [hurricanes](#) and [wildfires](#). The incidence of weather and climate disasters

is [increasing in the U.S.](#), a trend due partly to climate change but also to human decisions.

Since the 1950s, population growth has [increased significantly in Sun Belt states](#). Millions of people have moved to coastlines, from Texas to the Carolinas, putting more lives and property in harm's way during hurricanes. Florida, the [hurricane](#) capital of the United States, now is the [third-most-populous state in the nation](#).

Recognizing that Americans are increasingly vulnerable to [extreme weather](#), the National Oceanic and Atmospheric Administration's [Weather-Ready Nation initiative](#) is helping communities plan for events like violent tornadoes, destructive hurricanes and widespread flooding. As a [meteorologist and supporter of this effort](#), I believe that everyone should understand what kinds of severe weather hazards could affect their family and home and be ready for them. Here are some ways to do it.

June 1 is the start of meteorological summer. Enjoy the outdoors safely by knowing your risks, preparing, and serving as an example to others. Weather hazards can escalate quickly.

[#WeatherReadyhttps://t.co/BY1wi7bZdT](https://t.co/BY1wi7bZdT)
pic.twitter.com/Z3YY3hKvQX

— NOAA WRN Ambassadors (@WRNAmbassadors) [June 1, 2021](#)

What to do instead of taping windows

The U.S. experienced a record 22 [billion-dollar weather and climate disasters](#) in 2020 that wreaked about US\$95 billion in total damage. This included a historic hurricane season, with 30 named storms and seven billion-dollar tropical cyclones—the most in one year since NOAA

started keeping track of billion-dollar disasters in 1980.

For Atlantic and Gulf coast residents, hurricane preparedness has to be a way of life. It means knowing whether you live in a [designated evacuation zone](#). That's key in the event of storm surge—when a hurricane pushes seawater up onto local beaches and inland areas. Readiness also means having a family and business disaster plan that details preparations, and maintaining a [hurricane survival kit](#).

Another priority is knowing how to protect your home and business from damaging winds. Conducting a home insurance review with your agent and scheduling a [wind mitigation inspection](#) will identify what you can do to strengthen and protect vulnerable parts of the building such as windows, entry doors, garage doors and roofs.

Adding metal hurricane shutters or hurricane-resistant windows can help. So can retrofitting the attic or eaves with [metal hurricane straps](#), which connect the rafters to the walls to prevent the roof from blowing off.

Here's one step to skip: Putting tape onto windows for wind protection from a hurricane. Tape does nothing to reduce wind damage, so this is a waste of time.

Consumers also need to rethink how they shop for a new home in storm-prone areas. It's OK to want granite countertops, walk-in closets and a safe neighborhood near schools and parks. But buyers should also consider how well a house is built, its age, the materials it contains, the shape and condition of the roof, and building code requirements at the time it was constructed.

And they should ask whether the house is located in a [flood-prone area](#), has wind-resistant features or has been [retrofitted against hurricanes](#). Even residents who don't live in a zone where it is required should

consider taking out flood insurance.

Storm-testing buildings

Florida International University's [International Hurricane Research Center](#), which is part of our [Extreme Events Institute](#), was designated NOAA's first Weather-Ready Nation ambassador in South Florida. Our [Wall of Wind](#) facility is capable of creating Category 5 hurricane conditions—winds with speeds over 157 mph.

Like crash testing for vehicles, wind testing can help ensure that structures, traffic signals and building components can hold up under stress. The Wall of Wind is part of the National Science Foundation's [Natural Hazards Engineering Research Infrastructure program](#).

For educational outreach, we host the yearly [Wall of Wind Mitigation Challenge](#), in which teams of local high school students develop innovative wind mitigation concepts and solutions. And the Extreme Events Institute uses a [risk equation](#) to help the public understand and support measures to confront the "risk drivers" that lead to major losses.

For more about hurricane mitigation and preparedness, watch our 12-episode "[Eye of the Storm](#)" video series, or visit our [Spanish-language hurricane website](#).

Wildfires, tornadoes and floods

NOAA's [National Weather Service](#) is also investing in new forecasting tools and [linking its forecasts to lifesaving decisions](#) made in every state and county. The goal is to provide timely forecasts that emergency managers, first responders, government officials, businesses and the public can act on.

Across the United States, Weather-Ready Nation ambassadors are preparing for many types of extreme weather events.

Another extreme wildfire season is expected in many Western states. The Oregon Office of Emergency Management is asking residents to [have a bag packed and to prepare an evacuation plan](#).

Flooding can occur almost anywhere across the country, and hazards can develop quickly. In mid-May 2021, over 12 inches of rain fell on the Lake Charles, Louisiana, area [in a single day](#), triggering flash flooding that completely submerged parked cars. Flooded roadways can be deadly, so take heed of NOAA's "Turn Around Don't Drown" message and [avoid walking or driving in flooded areas](#)—it could save your life.

Tornado safety is critical: So far in 2021, twisters have [killed a dozen people](#), in Alabama, Louisiana, Texas and North Carolina. Tornado readiness includes [knowing the safest room in your home](#)—usually a windowless interior room on the lowest floor—and [tuning in to NOAA Weather Radio](#), which will provide severe-weather information directly from your local National Weather Service office.

During any severe weather event, such as the February 2021 deep freeze in Texas, the power may go out, so everyone should have flashlights and batteries on hand. Portable generators can be useful during extended outages, but [always operate them outdoors](#) to avoid the risk of [carbon monoxide poisoning](#).

Apathy and complacency can also be dangerous when it comes to weather-driven disasters. In my view, weather readiness has to become a way of life—something that all Americans see as their responsibility. The best forecasts in the world may be useless if the public doesn't respond or hasn't taken the needed actions to protect themselves when extreme weather threatens.

Most importantly, remember to help your neighbors when needed, especially if they are elderly and can't help themselves. In addition, consider supporting local nonprofits or churches that help residents in your community who have financial or transportation needs to be ready and safe. We are all in this together.

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