



Preparing Your Business for El Niño

Spanish for “the little boy,” El Niño is not a storm but rather a state of the atmosphere. El Niño leads to weather patterns that set the stage for stronger and more frequent storms to occur in different parts of the country, increasing the need to remain aware of changing weather conditions. The current El Niño is one of the strongest in almost 20 years. It has contributed to a number of weather events that occurred during the fall of 2015 and is forecast to continue through the 2016 winter season.

Despite its diminutive name, a very strong El Niño effect can result in severe weather with potentially tragic loss of life and significant property damage. Businesses should be aware of how El Niño can affect their region, and take appropriate steps to protect their employees, facilities and operations from loss.

AN EL NIÑO WINTER IN THE U.S.

While many variables affect the weather each year, winters in the U.S. during El Niño are usually warmer and drier than average in the Northwest, northern Midwest, and upper Northeast states, which means those regions experience lower than average snowfalls. Nevertheless, a major nor'easter dumped record levels of snow in the Mid-Atlantic region and New York in mid-January. This occurred because there was arctic air entrenched in the Eastern U.S. before the system formed, which is uncommon during El Niño years. Again, day-to-day weather is always influenced by a number of factors that all interact and can produce conditions that depart from expected meteorological conditions.

During typical El Niño years, significantly wetter conditions are often present in the Southwest, including central and southern California, while both cooler and wetter than average conditions occur in Southeastern



states. El Niño’s impact has already been felt in some parts of the South and Midwest, which experienced deadly tornadoes and flooding rains during the last week of 2015. In early January 2016, a series of rainstorms drenched California. While the rain was welcome, given the severe drought conditions the state has endured for the last four years, this spawned flooding and mud flows in locations recently ravaged by wildfire. Many businesses may be unprepared for flooding and potential mudslides caused by the interaction of heavy rain on parched or fire-scorched hills.

Based on data collected over 60 years by the National Weather Service, El Niño events are also correlated with an increase in the number of tornadoes across the Deep South, especially in Florida, like was experienced in the Tampa area in mid-January.

PREPARING FOR EL NIÑO RAINS

Since early fall, meteorologists and emergency planners have been publicizing the need for home and business owners in California and the Southwest to prepare for the heavy rains associated with El Niño. Since it has been nearly 20 years since the last very strong El Niño, many residents have never experienced, or have forgotten, the damage drenching rain can cause due to both flooding and water intrusion. The Federal Emergency Management Agency (FEMA) has mounted a [campaign to urge Californians to buy flood insurance](#), as thousands have let these policies lapse during the drought and may not have any coverage if they do not purchase flood insurance at least 30 days before a flood occurs. Flood insurance is provided through the federal [National Flood Insurance Program \(NFIP\)](#) or private insurance companies, depending on a business's location, building and business characteristics, and property value. The best way to learn more about flood insurance benefits, costs, and options is to contact an insurance agent or visit [floodsmart.gov](#).

REDUCE POTENTIAL FLOOD DAMAGE

Flood-proofing your building is likely the most economical and practical option to reduce damage.



Install Flood Doors—Install permanent swing flood doors or moveable flood gates for exposed openings including doors and windows.



Seal Penetrations—Seal or caulk penetrations coming into buildings around utilities such as electrical conduits, fire protection systems, water lines, gas lines and exhaust vents.



Inflate Water Barriers—Use inflatable water barriers that can be interconnected and stacked to block floodwaters.



Fill Sandbags—Protect your building using sandbags with plastic sheeting and sealants around doors and openings. There also are numerous new water-absorbing sacks that are used like sandbags.



Raise Electrical System Components—Hire a licensed electrician to raise electric components (switches, sockets, circuit breakers and wiring) at least 12 inches above [the FEMA-designated flood height for your area](#). This will help prevent damage to the electrical system and avoid the potential for fire from short circuits in flooded systems.



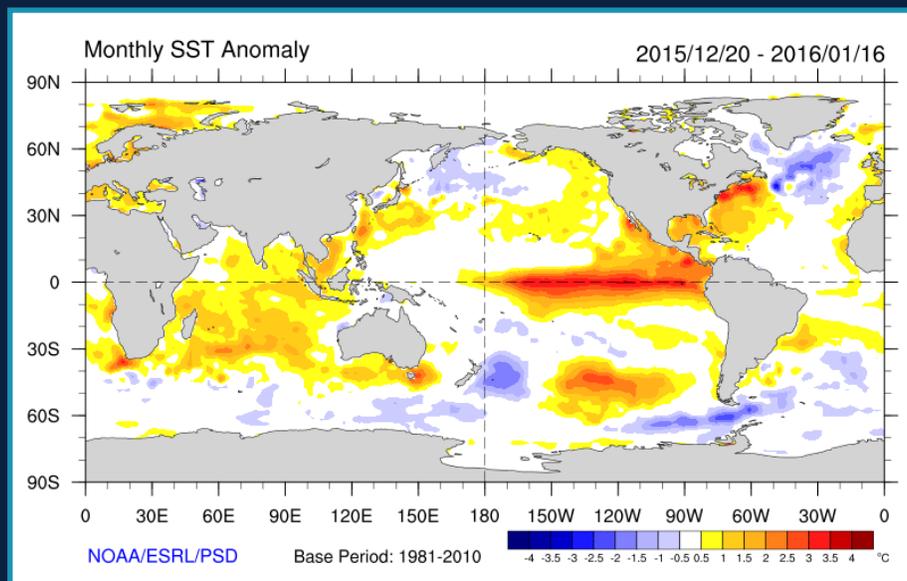
Raise or Flood-Proof HVAC Equipment—Floodwaters can extensively damage heating, ventilation, and cooling (HVAC) equipment. Have a contractor move it to an upper floor or build a flood-proof wall around the equipment.



Raise Fire Pump—Hire a contractor to raise fire pumps, controllers and related equipment above the estimated flood heights.

WHAT IS EL NIÑO?

El Niño is part of the El Niño-Southern Oscillation, which is a periodic change in sea surface temperatures and atmospheric pressure over the tropical Pacific Ocean. The warming phase is known as El Niño while the cooling phase is known as La Niña; each phase can last from several months to 2 years.



Shown is the monthly sea surface temperature anomaly map from December 16, 2015 to January 16, 2016, courtesy of NOAA. The map highlights the difference between current sea surface temperatures and the average for the same time period, with noticeably higher temperatures in the Pacific Ocean.



Direct Water Away From Building—Make sure your property’s grading (slope) directs water away from the building. Also, ensure downspouts funnel water away from the building to prevent rainwater from accumulating near the building’s perimeter.



Anchor Fuel Tanks—Unanchored fuel tanks outside your building can be swept away by flood waters, damaging your building or other properties downstream. The supply line to an unanchored tank in your basement also can tear free and fuel can contaminate your basement.



Install Sewer Backflow Valves—Flooding in some areas can cause sewage from sanitary sewer lines to back up through drain pipes. Backflow valves are designed to prevent return flow into the building.



Check Sump Pumps—Make sure your sump pump is working properly and the battery is fully charged.



Protect Wells from Contamination—Floodwater can enter and contaminate wells, making water unsafe to drink. A licensed well-drilling contractor can inspect your well and suggest improvements.

More information about preparing and protecting businesses from floods can be found at DisasterSafety.org/ibhs-risk-flood/reduce-flood-damage-to-businesses.

PREPARING FOR EL NIÑO TORNADES

Even though there is no way to eliminate all the damage of a direct hit from a violent tornado, business owners can implement a variety of affordable measures which, for the majority of tornadoes, will effectively reduce damage to facilities, injuries to employees and the losses associated with business disruptions. While the best way is to construct new buildings using the latest high-wind mitigation standards (including safe areas for personnel), there also are ways to improve the wind resistance of existing buildings in a cost-effective manner.

REDUCE POTENTIAL HIGH-WIND DAMAGE

Consider retrofitting, especially when remodeling or replacing building components. Retrofitting may include:

- Bracing and strapping the roof.
- Adding recommended fasteners, ties, reinforcements, roof covering and anchors as building components are modified and maintained.

- Making entry doors and overhead doors more wind-resistant.
- Building a safe room to protect against tornadoes.

Minimize damage from windborne debris by:

- Identifying and removing trees and branches that could fall on the building walls or roof, or on power lines.
- Inspecting and repairing loose or damaged building components such as siding, soffit and fascia, shingles and roofing, brickwork, and brick chimneys.
- Avoiding using built-up roofs with aggregate or pavers on the surface.

More information about preparing and protecting businesses from tornadoes can be found at DisasterSafety.org/ibhs-risks-tornado/steps-to-reduce-the-risk-of-tornado-damage-in-commercial-structures.

WEATHERING EL NIÑO AND OTHER STORMS

Prepare your business for El Niño by ensuring you have a solid business continuity plan in place that has been tested. OFB-EZ (Open for Business-EZ) is a free business continuity tool designed by IBHS to help even the smallest businesses plan for any type of business interruption so they can quickly re-open and resume operations following a disaster. With non-technical language and a streamlined layout, OFB-EZ can help any business owner create an easy-to-use recovery plan tailored to the individual business. Download the free OFB-EZ Toolkit at DisasterSafety.org/wp-content/uploads/OFB-EZ_Toolkit_IBHS.pdf.

What’s more, a business continuity plan developed with immediate El Niño concerns in mind can be activated for other severe weather events—so it should be kept up-to-date even as the weather patterns change.

IBHS is a non-profit applied research and communications organization dedicated to reducing property losses due to natural and man-made disasters by building stronger, more resilient communities.

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