# WSP USA INSPECTION SERVICES DISASTER AWARENESS REPORT

December 31, 2020

### 2020: Year in Review

Mother Nature shattered Atlantic Hurricane records this season (which officially ended Nov. 30), with more named storms (30) than ever, claiming hundreds of lives and causing something in the range of US\$15 billion in damage. Coupling this with a global pandemic (COVID-19), made 2020's disaster season much more difficult. The events this year showed that disasters aren't singular events, but overlapping and intersecting phenomena. In the future, disaster planners will have to better account for how many things can go wrong at once, and that areas may not have time to fully recover from one catastrophe before the next one strikes.

#### Puerto Rico Earthquakes

Puerto Rico experienced an unprecedented series of ongoing earthquake swarms, with more than 9,000 earthquakes since December 2019 in the Ponce region of Southern Puerto Rico. These include the strongest earthquakes in Puerto Rico in over a century. There were three significant earthquakes, and each had many strong aftershocks. Many of the aftershocks were of significant magnitude and made relief and recovery difficult.

 On Jan. 6, 2020, there was a 5.8 magnitude earthquake, followed on Jan. 7 by a 6.4 magnitude earthquake. In Guayanilla more than 600 buildings were damaged,

including homes, a church and other buildings were destroyed. In Yauco, 3,261 homes were damaged including 62 that collapsed and 245 that are compromised and at risk of collapsing in the continuing quake activity.

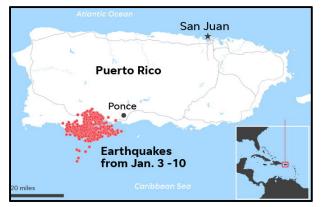
- On Jan. 11 there was an aftershock that registered at 5.9 magnitude.
- On Jan. 15, there was a 5.2 earthquake and on Jan. 25, a 5.0 magnitude earthquake hit near Guayanilla.
- On May 2, this same area was rocked by a magnitude 5.4 earthquake that caused new damage in Ponce and was felt throughout the same area as the earthquakes in January.

#### COVID-19

COVID-19 has dominated our headlines all year long, having affected all aspects of our lives. The virus has evolved from an isolated disease in a region of China, to a global pandemic that has killed over 1.7 million people worldwide, has brought travel to a near-standstill, pushed hospital systems to the brink and dragged the global economy into a recession.

- On January 9th, the World Health Organization announced a mysterious coronavirus-related pneumonia in Wuhan China. At this point, the WHO was uncertain how serious the virus was.
- On January 21st, a Washington state resident became the first person in the United States with a confirmed case of the virus having returned from Wuhan on January 15th. The CDC deployed a team to help with the investigation, including potential use of contact tracing.
- On January 31st, with a worldwide death toll of more than 200 and nearly 10,000 cases, the WHO issued a Global Health Emergency for just the sixth time. Human-to-human transmission quickly spread to the United States, China, Germany, Japan, Vietnam, and Taiwan.

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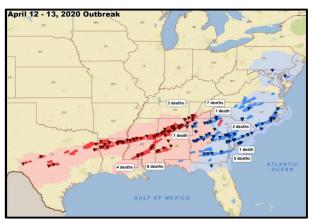
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- On February 3rd, the Trump Administration declared a public health emergency and global air travel was restricted.
- In the month of March the coronavirus exploded across the globe. The WHO declared a global pandemic on March 11th. Some of America's workforce began to work from home while millions lost their jobs.
- Also in March, after initially saying that masks for most of us were not needed, the CDC recommended that people wear masks in public settings and when around people who don't live in your household, especially when other social distancing measures are difficult to maintain.
- By the month of May, over 100,000 people in the U.S. had died of COVID-19, near the end of September we passed 200,000 people. That number is now well over 300,000, by far the most in the world, with more than 19 million people in the U.S. testing positive since the pandemic began.
- Now we are starting to see vaccines to protect against the virus. Vaccines are being developed by scientists around the world in a process taking place at unprecedented speed.

#### Tornadoes

The 2020 tornado season got off to a busy and early start with the first confirmed tornadoes coming just ten days into the year and 88 by the end of January alone. By the end of April, there had been 460 confirmed tornadoes and the U.S. appeared to be headed for one of the busiest tornado seasons on record. However, activity dropped off significantly after April with only 69 confirmed tornadoes in May 2020 – compared with the average of 272 for the same month each year and 509 confirmed reports in 2019. The last time there were fewer than 100 tornadoes in the month of May was 1970. As of July 24, there were 944 reported and 616 confirmed



tornadoes. 75 people had been killed in 23 separate tornadoes. In April, every day but three had severe weather reports leading to the second highest number of tornadoes recorded in that month since recent record keeping began.

Nashville Tornado

- At least two dozen died following a pair of surprise tornadoes that carved through middle Tennessee overnight March 2 into March 3, striking the downtown Nashville area before cutting a strip through the landscape farther to the east over the next 50-plus miles.
- The first tornado, which touched down just west of Nashville, demolished most of the John C. Tune Airport. The tornado was on the ground for more than 50 miles before finally lifting nearly an hour later.
- Shortly thereafter, an even stronger EF4 tornado touched down near Cookeville, Tenn. around 2 a.m., killing at least 18.

Mississippi Tornadoes

• At least 351 tornadoes were tallied across the Lower 48 in April, marking the deadliest month for tornadoes since 2013 and the second most active April on record.

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- Three outbreaks punctuated the month, including one on Easter Sunday that produced at least 150 tornadoes. It proved the third most prolific tornado day on record as swarms of twisters marched across the South.
- Among them were a pair of wedge tornadoes that stampeded across southern Mississippi north of Hattiesburg, leveling large chunks of Bassfield, Soso, Laurel and Moss. One was rated a 190 mph EF4, a buzz saw of wind that peaked at 2.25 miles wide. That proved the widest tornado in Mississippi state history and the third largest ever to touch down in the United States.
- Just a half-hour after the tornado's monstrous rampage, a mile-wide EF3 developed to the north.

#### Michigan Flood

In May 2020, following heavy rains, the Edenville Dam breached and the Sanford Dam downstream overflowed, which caused major flooding in Midland County, including the city of Midland. Approximately 10,000 people were evacuated. Governor Whitmer called it "an event unlike anything we've ever seen in 500 years".

• The FEMA Individuals and Households Program (IHP) Damage Assessment identified 52 homes destroyed, 907 homes with major damage, 740 homes with minor damage, and 642 homes affected by the severe storms and flooding in the disaster area.

#### Iowa Derecho

For a meteorologist, perhaps the most memorable event of the year was the August derecho — a storm described as an inland hurricane — which plowed a path 800 miles long and 40 miles wide through lowa and Illinois. A broad area experienced hurricane-force winds, sometimes lasting 50 minutes, with gusts reaching 140 mph.

• As of October 2020, it is the most costly thunderstorm in US history.

#### Wildfire Season

Fueled by record heat and parched vegetation, fanned by howling winds and, at times, sparked by blitzes of lightning, the West was plagued by an onslaught of devastating wildfires that began in June and continued into December. The 2020 wildfire season in California was off the charts in terms of area burned. Some 4.2 million acres were torched in blazes in just the Golden State alone. That's an area larger than Connecticut and twice as extensive as what burned in California's previous worst fire season.

- Thirty-one people died in California wildfires, which damaged or destroyed more than 10,000 structures. Five of the top six largest wildfires in the state all occurred in 2020.
- In Washington state, fires charred 600,000 acres, the largest burned area since 2015.
- In Oregon, blazes consumed more than a million acres and burned down 4,009 homes, per the Statesman Journal. At one point, more than 10 percent of the state's population was under an evacuation warning or order.
- Colorado saw its three largest fires on record occur in 2020. First came the Pine Gulch fire in late July north of Grand Junction, which scorched nearly 140,000 acres. The Cameron Peak Blaze, which began in August west of Fort Collins, was the largest of the three, burning 208,000 acres over four months. Then came the East Troublesome, which torched 192,560 acres in October, at one point growing 100,000 acres in less than 24 hours.

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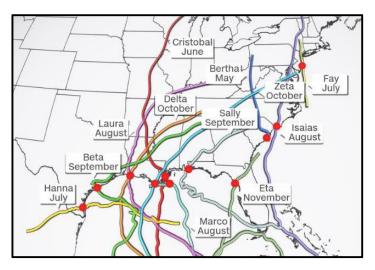
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#### Atlantic Hurricane Season

The 2020 Atlantic hurricane season was the most active and the seventh costliest Atlantic hurricane season on record.

- The season featured a total of 31 (sub)tropical cyclones, all but one of which became a named storm.
- Of the 30 named storms, 13 developed into hurricanes, and six further intensified into major hurricanes, with one, Hurricane lota, attaining Category 5 strength on the Saffir– Simpson scale.
- It was the second season to use the Greek letter storm naming system, the first being 2005.



- Of the 30 named storms, 12 of them made landfall in the contiguous United States, breaking the record of nine set in 1916.
- Two of those landfalls, Laura and Delta, were within 15 miles of each other, both ravaging the Lake Charles area.
- Hurricane lota formed in the Caribbean and rapidly intensified to Category 5 on November 16, the latest Category 5 hurricane on record in the Atlantic Ocean.
- This also made 2020 the only recorded season with two major hurricanes in November. Iota ultimately made landfall in the same general area of Central America that Eta had just weeks earlier and caused catastrophic damage.

#### 2020 WSP Disaster Summary

- Awarded eight separate task orders.
- Six different states (Michigan, Louisiana (2), California, Oregon, Alabama, Florida) as well as the Territory of Puerto Rico.
- Five different causes of damage: Earthquake, Flood, Severe Storms, Wildfires and Hurricanes
- Due to the COVID-19 nationwide emergency, FEMA introduced remote home inspections for disaster survivors starting mid-April. For remote inspections, inspectors contacted disaster survivors and completed the standard onsite inspection process by phone using FEMA's Remote Inspection Tool and Script.
- WSP inspectors have done an excellent job adjusting to the new scope and exceeding FEMA's quality and production requirements.
- Over 160,000 inspections completed
  - o Of those, over 127,000 inspections were completed remotely
  - Over 4,900 quality control inspections completed
    - o Of those, over 3,900 quality control inspections were completed remotely
- 635 inspectors activated

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Pending Individual Assistance Declaration Request 12/31/2020						
State	Event	Date Submitted	Approved/Denied /Pending	Number of Counties/Tribes		
WA	Wildfires & Straight-Line Winds Sept 6 & continuing	9/16/2020	Pending	1 County		
LA	Hurricane Zeta October 26-29	11/24/2020	Pending	6 Parishes		
MS	Hurricane Zeta October 28-29	11/24/2020	Pending	6 Counties		
СО	Wildfires September 6-November 5	12/21/2020	Pending	3 Counties		

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WSP USA Inspection Services Active Disasters						
Disaster Number and State	Disaster Type	Number of Counties Declared	Days Since Launch	Registration Deadline		
4558 CA	Wildfires	15 Counties	125	12/11/2020		
4559 LA	Hurricane	21 Parishes	121	11/27/2020		
4562 OR	Wildfires	8 Counties	105	11/30/2020		

### WSP USA INSPECTION SERVICES ACTIVITY

