

The flip side of years of no hurricanes: Good luck runs out

31 May 2015, by Seth Borenstein



In a Aug. 30, 2005 file photo, rescue personnel search from victims as they traverse the New Orleans 8th Ward in the flooded city of New Orleans after the onslaught of Hurricane Katrina. Cities like Tampa, Houston, Jacksonville and Daytona Beach historically get hit with major hurricanes every 20 to 40 years, according to meteorologists. But those same places have now gone at least 70 years, sometimes more than a century, without getting smacked by those monster storms, according to data analyses by an MIT hurricane professor and The Associated Press. (AP Photo/Dave Martin, File)

For millions of Americans living in the hurricane zones on the Gulf and East coasts, recent decades have been quiet—maybe too quiet.

Cities like Tampa, Houston, Jacksonville and Daytona Beach historically get hit with major hurricanes every 20 to 40 years, according to meteorologists. But those same places have now gone at least 70 years—sometimes more than a century—without getting smacked by those monster storms, according to data analyses by an MIT hurricane professor and The Associated Press.

These are places where people may think they

know what to expect from a major hurricane—with more than 110 mph winds, such as Katrina or Andrew—but they really don't. They are cities where building construction has boomed but haven't been tested by nature at its strongest. In the Tampa region, an Andrew-sized storm could cause more than \$200 billion in damage, according to a local government study in 2010.

Few of Tampa's current residents witnessed the last major hurricane that hit there in October 1921. Movies were silent, booze was illegal and Warren Harding was president. For northeast Florida and southern Georgia, the last major hurricane was sometime in the 19th century.

"We've been kind of lucky," said MIT meteorology professor Kerry Emanuel, who along with the AP crunched numbers on how often hurricanes have hit metro regions and compared them to when the last time they were hit. "It's ripe for disaster. ... Everyone's forgotten what it's like."

"It's just the laws of statistics," said Emanuel. "Luck will run out. It's just a question of when."

This hurricane season, beginning Monday, doesn't look to be as busy as past ones. The National Oceanic and Atmospheric Administration forecasts a 70 percent chance of fewer than normal hurricanes, mostly because of an El Niño weather oscillation. But even a quiet season can have one devastating storm hit. That's what happened when Andrew smashed parts of Miami in 1992; it was the second costliest hurricane on record, in a below average year for overall hurricane activity.

Craig Fugate, administrator of the Federal Emergency Management Agency, is preparing for the worst and worrying that other people aren't.

Inexperienced people "generally underestimate how bad it will be and made decisions about staying when they should be evacuating," Fugate

said. "You have to accept the fact that every time a major storm threatens it's a new experience for 99 percent of the people involved."

And then there are the people who went through smaller storms and think that wasn't too bad and misjudge the bigger storm. In that type of situation, that thinking can "get you killed," Fugate said. "People don't always understand the threat."

Hurricane evacuation researcher Jay Baker, a retired Florida State University professor, said his studies and surveys show that people will still evacuate properly even if they don't have recent storm experience.

But it's not just people; it's the officials who have to make the tough decisions and tell people what to do. Only one hurricane-prone state, Louisiana, has a governor who was in office when a major hurricane hit. The FEMA top management is different than in 2005, when the last majors hit.

Fugate, who was Florida's emergency management chief during many state landfalls in 2004 and 2005, said "there are very, very few people who are working state government in Florida who were there in state government in 2004."



This Aug. 25, 1992 file photo shows the water tower, a landmark in Florida City, Fla. still standing over the ruins of the Florida coastal community that was hit by the force of Hurricane Andrew. Cities like Tampa, Houston, Jacksonville and Daytona Beach historically get hit with major hurricanes every 20 to 40 years, according to

meteorologists. But those same places have now gone at least 70 years, sometimes more than a century, without getting smacked by those monster storms, according to data analyses by an MIT hurricane professor and The Associated Press. (AP Photo, File)

Experts are especially worried about the Tampa region. Emanuel calculates using past storm data and computer simulations that a major hurricane in general should hit Tampa every quarter century or so. The National Hurricane Center, calculating on past storms a bit differently, says a major hurricane should hit every 30 years or so. But it's been decades upon decades since the big one hit.

"It's a real big concern," said Christopher Landsea, science operations officer at the National Hurricane Center in Miami. "My worry is that we'll have hundreds or even thousands dead the next major hurricane that hits the Tampa Bay area."

It may sound like areas like Tampa are "overdue," scientists like Landsea and Emanuel say that's not a good word because the odds of getting hit don't actually change because there were no storms the year before. They are the same year to year.

"Hurricanes don't give a darn what happened the last year, the last 10 years," Landsea said. "We could certainly have a major hurricane hit Tampa-St. Pete in 2015 but it doesn't matter for this particular season that it hasn't had a hurricane since 1921."

For Houston the last major hurricane hit was 1941, according to the hurricane center, although smaller storms, barely under the threshold for major, have hit more recently and major storms have skirted nearby.

"I would be seriously worried about Houston, just because it's a huge petrochemical center with very large potential for a blended natural-technological event," said Kathleen Tierney, director of the Natural Hazards Center at the University of Colorado.

For Ocean City, Maryland, and down the coast at Norfolk, Virginia, it's been more than 160 years

since they've been hit by a major hurricane. And while geography and currents make landfalls there rarer than Florida, it can happen and probably will someday, experts said.

"I feel like I live on the San Andreas fault," longtime coastal Maryland resident RuthAnne Grant said inside a hardware store on Memorial Day. "A lot of older people move up here without a clue about what's going to happen."

It has been more than nine years since the U.S. was struck by a major hurricane—Superstorm Sandy did major damage but didn't qualify meteorologically as a major hurricane. That's a streak that is so unprecedented that NASA climate scientist Timothy Hall went looking to see if it could be explained by something that has happening with the weather or climate. He found that big storms formed, they just didn't hit America, coming close and hitting islands in the Caribbean and Mexico. The lack of hurricanes hitting the U.S. "is a matter of luck," Hall concluded in a peer-reviewed study.

Even though the Virginia, Maryland, Delaware area doesn't get as frequent major hurricanes as Florida or Texas, the traffic chokepoints and inexperience of people there worry Fugate, especially Norfolk.

"These are areas that haven't had a lot of hurricanes," Fugate said. "People tend to think, well, they don't have a hurricane problem. But it's a region that would be very difficult to evacuate."

At a disaster conference in Ocean City, Maryland's emergency management director Clay Stamp said he does worry about "a false sense of security" in the region because there have been several close calls with smaller storms that didn't hit in the past decade or so. But he added that watching major disasters in Sandy and Katrina from afar has helped make residents more aware of how bad it could get.

Stamp worries about tourists who look at sunny skies and don't pay attention: "We just need the public to stay connected. When they come to the beach, the propensity is to disconnect."

Hurricane center director Rick Knabb lives in a city,

Fort Lauderdale, that hasn't been directly hit by a major hurricane since 1950, though Andrew came close.

"We should count our blessings that in any particular location, you've gone a long time without a significant impact," Knabb said. "It's not like hurricanes or tropical storms haven't happened anymore. They just haven't happened here or where you live."

More information: FEMA's hurricane preparation page: 1.usa.gov/1FjyQ9v

National Hurricane Center: www.nhc.noaa.gov

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