

Wild December pushes US weather in 2015 to near records

January 7 2016, by Seth Borenstein



In this Dec. 31, 2015 file photo, houses are surrounded by floodwater in Arnold, Mo. Federal weather officials said December's wild El Nino pushed 2015 in the U.S. to near-record levels for heat, moisture and downright extreme conditions, federal weather officials said. (AP Photo/Jeff Roberson, File)

December's wild El Nino pushed 2015 in the United States to near-record levels for heat, moisture and downright extreme conditions, federal weather officials said Thursday.

The year that just ended was the second warmest and third wettest in 121 years of record-keeping for the lower 48 states, the National Oceanic and Atmospheric Administration announced.

The 54.4 degree average last year was second only to 2012.

"The combination of El Nino plus climate change clearly has brought the U.S. some weirdly memorable, highly unusual, and quite troubling weather," said climate scientist Michael Oppenheimer of Princeton University. "As for the influence of climate change, it's just the beginning."

These are just U.S. statistics. Globally, it's almost certain to be hottest on record with exact figures coming out later this month, and the U.S. near-record is emblematic of that, said Deke Arndt, NOAA's climate monitoring chief.

"We live in a warming world and a warming world is bringing more big heat and more big rain events to the United States," Arndt said during a NOAA press conference.

For much of the spring and summer, climate change was the big factor pushing U.S. temperatures above normal. But in November and December, El Nino took over and supercharged the global warming effect while turning on the heavy rains, said Victor Gensini, a meteorology professor at DuPage College outside Chicago.

El Nino is the natural warming of the central Pacific that changes weather worldwide. It occurs every two to seven years or so with one of its most noticeable affects being heavy downpours in California.

Going into December, it was just the fifth warmest and ninth wettest year in the United States. Then a record-setting December pushed

everything up a few notches.

At 38.6 degrees—6 degrees warmer than the 20th century average—December was nearly a full degree warmer than the record set in 1939. And the 3.93 inches of precipitation in December surpassed the old record by more than a sixth of an inch.

This was the first time that a month was both the warmest and wettest on record, said NOAA climate scientist Jake Crouch.

Last year, the U.S. lurched from one extreme to another. Going into December, the U.S. was flirting with a record low number of tornado deaths. Then a series of nasty tornadoes killed 24 people in four days, making it the second deadliest December for tornadoes on record.

December storms, featuring flooding in the Mississippi River and snowfall in the Southwest, killed at least 50 people, making it the deadliest weather event of 2015.

NOAA compiles a climate extremes index that puts all sorts of extreme weather—hot and cold, wet and dry—into one lump statistic. It showed 2015 was 70 percent more extreme than the average over 106 years. It was the fourth most extreme year in the United States.

Ten weather disasters last year caused \$1 billion or more in damage—ranking fourth highest for number of billion-dollar disasters in 35 years of record-keeping. Dollar figures are adjusted for inflation.

Michael Mann, a Pennsylvania State University climate scientist, said the issue is not so much records but how last year's dramatic weather affected Americans, including record rainfall in South Carolina in early October and a balmy Christmas Eve in the East.

"These events weren't 'caused' by climate change, but each of them was made worse by climate change," Mann said in an email. "2015 was the year where climate change impacts in the U.S. weren't just detectable—they were obvious."

More information: NOAA's state of the climate:
www.ncdc.noaa.gov/sotc/summary...nfo/national/2015/12

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