

## **Southern twisters: Don't blame La Nina.(unusual weather, including tornadoes, are perhaps incorrectly blamed on the La Nina current)(Brief Article)**

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Storms in the southern United States turned vicious this month, spawning 150 tornadoes and killing 18 people during a time of year when funnel clouds normally are a rare sight. Meteorologists are still struggling to explain what caused the unprecedented number of January twisters, but they can rule out any direct link with the climatic hellcat known as La Nina, a cooling of Pacific waters.

Last year, press reports tied extreme weather--often erroneously--to El Nino, a warming of the equatorial Pacific that ended midway through 1998. With the Pacific now colder than normal, the question arises whether La Nina should shoulder any blame for the severe storms in January, such as the southern tornadoes and the 18.6-inch snowfall in Chicago. Last week, a press release issued by the National Oceanic and Atmospheric Administration (NOAA) trumpeted: "La Nina drives some U.S. winter weather extremes."

NOAA meteorologists, however, disavow any concrete connection between the Pacific conditions and the storms. Joseph T. Schaefer, director of the National Weather Service's Storm Prediction Center in Norman, Okla., examined U.S. tornado records going back a half century, looking for evidence that January tornadoes come more frequently during episodes of La Nina. "From my 49 years of data, I find nothing," he says.

Take Arkansas, for example. Dozens of tornadoes raked the state last week, killing seven people. To test for a connection with La Nina, Schaefer searched through the database for the months with the most Arkansas tornadoes. Nine of the top 11 occurred in normal years, when neither La Nina nor El Nino held sway in the Pacific. One of the remaining two months was in a La Nina year, the other in an El Nino year.

Tennessee, also hit by tornadoes this year, showed a similar pattern--indicating that the equatorial Pacific had no clear influence on tornado frequency.

Ed O'Lenic, who makes forecasts for NOAA's Climate Prediction Center in Camp Springs, Md., says that it is impossible to connect La Nina to any one storm, such as the Jan. 2 blizzard in Chicago. He notes, however, that NOAA's long-term forecasts were for a general increase in precipitation around the Great Lakes and in the Northwest in early winter.

Forecasters agree that La Nina makes U.S. weather much more variable. The colder-than-normal conditions in the equatorial Pacific weaken the jet stream that sometimes flows over the southern states and helps keep weather constant. Without the strong southern jet, the path of Pacific winds can jump erratically as they pass over North America. Researchers are trying to determine whether that increases the odds of blizzards.

Climate models suggest that La Nina will endure at least until June. While meteorologists can't say whether to expect more record tornado outbreaks or snowfalls, they foresee continuing changeable weather. "I think it's good for people to be aware there is a lot of variability and that the potential for severe weather still exists," says O'Lenic.

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