## **Tornadoes Crash through Illinois**

Although the U.S. tornado total year-to-date is below average, there have been several major episodes already this year; Tulsa and Oklahoma City both took hits on March 25 with widespread damage; a monster killer tornado and several smaller ones struck Illinois on April 9. The only saving grace is that they did not strike a heavily populated area.



*This amazing photo of the Rochelle, Illinois tornado was captured by former meteorology professor Walker Ashley.* 

Rochelle was one of several small towns that took a severe beating at the hands of an EF-4 (winds 166 to 200 mph) tornado that stayed on the ground for 30 miles, achieving a width of more than 2,000 feet at times. Every building in community of Fairdale, home to about 200 people, received significant to extreme damage, and many were destroyed. Two persons were killed in the twister with 22 others hurt. Rochelle, Illinois also took a lot of damage; in one typical tornado story 14 people took shelter in the basement of a restaurant while their meals took flight.

According to the National Weather Service, a total of 11 twisters dotted the Illinois landscape with the Rochelle-Fairdale one by far the strongest. It was also the only EF-4 or stronger tornado to strike in the northern part of Illinois in 25 years.



Fairdale, Illinois took a severe beating from the EF-4 tornado along with two fatalities / National Weather Service

Several hundred structures were damaged or destroyed, along with a few hundred vehicles, leaving a ballpark insurance estimate of \$25-50 million in losses, but officials with Illinois Emergency Management said the job of assessing costs is not complete.

## Florida: No "Sunshine" from this Sky...

Although far less intense than the Illinois storms, Ocala, Florida (north central part of the peninsula) saw a "relatively weak" EF1 tornado on April 21<sup>st</sup> with 90-100 mph winds; it tore through a 2-mile long, 1,000 foot wide zone of the town. The Marion County Sheriff's office said 55 homes were damaged with 10 rendered uninhabitable; proof that lesser tornadoes can still pack a punch. No one was hurt.



A huge tree gouges a hole in this Ocala, FL house at the hands of 90-mph tornado winds / WFTV-TV image

## California Fire Risk: Getting Worse...

The California Department of Water Resources said that a new "low water" mark was set April 1<sup>st</sup> with the early-April snowpack measurement. The statewide snowpack's equivalent water content was at a paltry five percent of the long-term April 1st average.

A typical year would yield a 28-inch average; it was only 1.4 inches on April 1, making 2015 by far California's driest winter on record.

Phillips Station is located 90 miles east of Sacramento, and it is used as a window into the overall snowpack condition in the central Sierra Nevadas. Phillips should be covered with several feet of snow in early spring, with the average April 1 depth (since 1941) at 66.5 inches. This year it was Zero. Zilch. Nada. No snow on the ground at all.

Governor Edmund G. Brown Jr. said after witnessing the snow drought, "We're standing on dried grass, and we should be standing in five feet of snow. We're in an historic drought, and that demands unprecedented action." The Governor issued an executive order mandating stricter conservation measures across the Golden State.

The state's reservoirs are in better shape than the snowpack, but with no spring meltwater to replenish them, they will drop quickly as the warm season moves in. California normally gets little rain from early June through October...so with the dry season almost here, fires could be extreme.

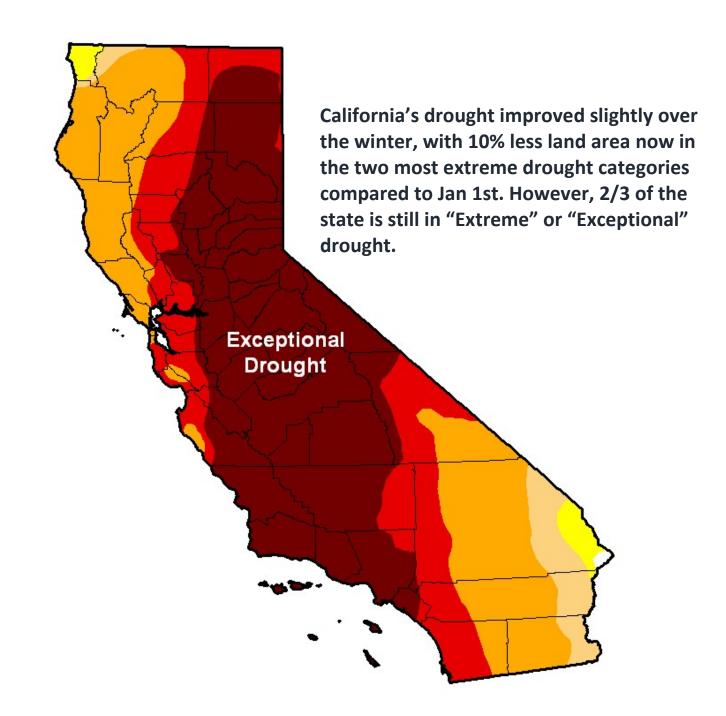
In fact, the season is getting an early start with smaller fires already breaking out in southern California. A small grass fire of just a few acres still had firefighters jumping on April 27<sup>th</sup> to save homes as they battled 30+ mph winds to keep the flames away:



KLTA-TV image/ Granada Hills area

El Nino has little effect on California weather during the summer and with four years of serious drought, the slight easing brought by winter rains was woefully short of any real help.

In fact, vegetation that may have perked up during the temporary moistening will quickly die and offer more fuel for fires this summer and fall. Expect a seriously dangerous fire season for the state the remainder of this year.



## Hurricane Outlook 2015: El Nino Stronger than Expected?

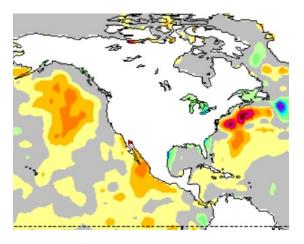
Indications over the winter were for a weak El Nino which would have a limited effect on the 2015 Atlantic hurricane season; since that time, the grouping of computer models has shifted Pacific sea temperatures warmer across the board, which makes El Nino stronger.

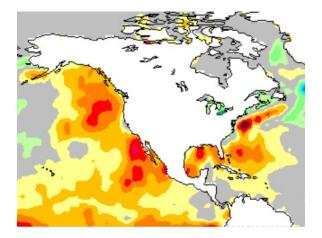
The Colorado State hurricane forecast, which has been better than 80% accurate since 1984, calls for an extremely quiet season with only 7 named storms, far below the average of 11.3 per year. One of the primary factors for this forecast is the expectation of a moderate El Nino, which creates more wind aloft over the tropics, an unfavorable factor for hurricanes.

Some other hurricane forecasting groups such as the HUGO (Hurricane Genesis & Outlook Project) at Coastal Carolina University are also predicting a quiet season. They, like Colorado State, say it will be a "slow" season with eight named storms, four hurricanes and two major ones.

Two things to note: slow does not mean "nice". There were only 6 named storms in 1992, and one of them, Hurricane Andrew, virtually obliterated the city of Homestead Florida. And speaking of Florida, it's overdue for a hurricane as there hasn't been a direct hit on the Sunshine State since 2005, their longest hurricane-free spell on record.

Plus, sea surface temperatures in the western Atlantic and Gulf are warmer than this time last year, offering more energy for hurricanes. While it is unlikely to be a super-active season, 10 or 11 named storms, close to average, seems reasonable given these factors.





Sea surface temperatures (compared to normal)/NOAA April 22, 2014 April 23, 2015

As for severe weather season, given the active El Nino jet, expect frequent bouts of heavy rain and severe weather in May. Don't forget that straight-line winds and hail often do more dollar damage in a given year than tornadoes, and we're just getting into the "meat" of the season now.

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