

Washington State Inferno: “Everything Was Burning”

Lightning started a series of fires in Washington State in early August, and by the 28th they had charred an area of over 800 square miles, about twice the size of Dallas, Texas. Wildfires in the state since late June are collectively responsible for destroying hundreds of buildings. Chelan County Sheriff Brian Burnett told the Associated Press that he’d never seen a fire like this, so hot it melted cars.

According to Seattle’s KING-TV, Okanogan County Sheriff Frank Rogers says many homes burned on the night of August 19-20 in the Twisp and Winthrop areas, some 115 miles northeast of Seattle. He said it was "a nightmare.....everything was burning". The Twisp Fire grew at a staggering 1,000 acres per hour for a time. Given the fluid situation, it may take a while for complete assessment of the damage; a telling fact comes from the Okanogan Fire Complex in the northern part of the state: It’s the largest fire ever in Washington State at nearly 300,000 acres. Two of the fires have burned their way into southern Alberta where it’s also tinder dry.



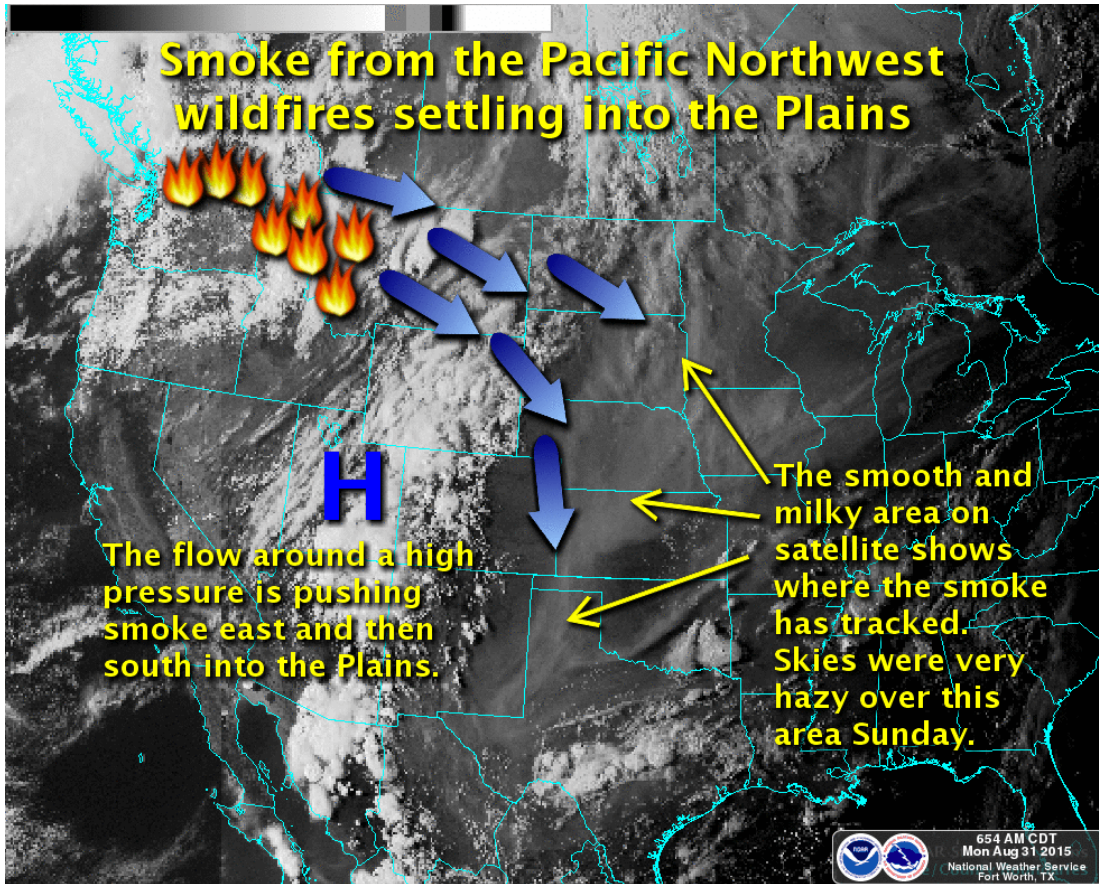
Fires reach beautiful Chelan Lake on August 16. Most of the town of Chelan was just barely saved. / KING-TV



Parts of this car in Chelan actually melted from the heat (see the metal on the ground?) / Ruth Fremson / New York Times

A contributing factor: an infestation of beetles killed many trees, offering up an especially plentiful fuel supply for the fast-moving flames. Lightning storms in July and August played the part of co-conspirator, igniting dozens of fires while offering little rain.

Widespread smoke and haze from the wildfires covered portions of several states from Montana to Texas. The smoke is so extensive that the National Weather Service office in Fort Worth, Texas made note of it:



National Interagency Fire Center information officer Tina Boehle said in a New York Times interview that this fire season is different from many because there's been a tremendous amount of activity in a short period of time. However, the worst may be over as a wetter weather pattern is evolving over the Pacific Northwest.

Seattle Storm: No Fire, Just Fierce Winds

As if the fires weren't enough, a severe windstorm brought about by deep low pressure swept northwestern Washington on August 29 and produced widespread damage. Winds over 80 mph were clocked along the shoreline; the Coast Guard reported at least 20 boats cast adrift and several rescues. Inland, two people were killed by falling trees, several more were injured, and at one point more than 500,000 people in the Seattle metro area were without power. Trunks and limbs were downed all over the place with numerous reports of roof, vehicle and power line damage as well. It's too soon to offer a loss assessment but adjusters will be busy across Washington State for a while.



A huge tree lies across a normally busy road offering testimony to severe storm winds in Seattle / KING-TV

California and Oregon Fire Update: Conditions Improving

California began August with a headline-grabbing fire east of the Napa Valley area: The “Rocky” Fire started from a vehicle fire in late July and grew to 7,000 acres in just 24 hours; it continued to enlarge very quickly and by early August, its size increased nearly 800% to over 60,000 acres.

Much of fire zone contained sparsely unpopulated rugged terrain, but some two dozen homes were destroyed. At the fire’s peak more than 13,000 people were in danger and many residents were under mandatory evacuations. A brief period of cooler weather gave firefighters the upper hand and that fire is now mostly contained. Several other large California fires are also largely under control.

A fire near the community of John Day, Oregon reached 50,000 acres and burned 85 structures earlier in August, but that fire is also gradually easing as we move into September.



The Canyon Creek fire near John Day, Oregon destroyed 35 homes and damaged/destroyed 50 other structures. KOIN-TV

Other fire hotspots include Idaho and Montana where several hundred thousand acres, including portions of Glacier National Park, are on fire. The total loss for all fires in the west is not yet assessed but it's a lot of zeroes for sure, with structure losses to at least several hundred.

“Erika” Falls Apart, but Brings Flooding to Southeast U.S.

Tropical Storm “Erika” formed in the western Atlantic last week and never reached hurricane strength, but it made a mark on the Caribbean where a foot of rain fell on the island of Dominica on August 26, killing 20 in floods and mudslides. The system was downgraded to just a low-pressure area before reaching the U.S. but a tremendous stream of moisture from Erika’s remnants made for significant flooding in South Carolina.



Water into homes after Charleston flooding / Mike Courtney @notoriouslynice



Flooding in Charleston, SC from the remnants of Erika / @nickmilak / Instagram

Charleston recorded its 2nd wettest August day ever with more than six inches of rain on the 31st, making for widespread flooding. More heavy rain from the tropical storm left-overs is likely to plague the area for several days. Florida also received some heavy rainfall from Erika, although flooding was less severe.

At press time, another tropical system, “Fred”, was over the far eastern Atlantic but expected to fizzle over colder water in the middle of the ocean. The total storm count of six storms through the end of August is very close to average, but we’ve been lucky in dodging any major hurricanes. El Nino wind shear has something to do with that, but there’s lots of season left. The odds of a major hurricane making it to U.S. shores during the remainder of this season is lower than average compared to a non-El Nino year.

Speaking of El Nino....

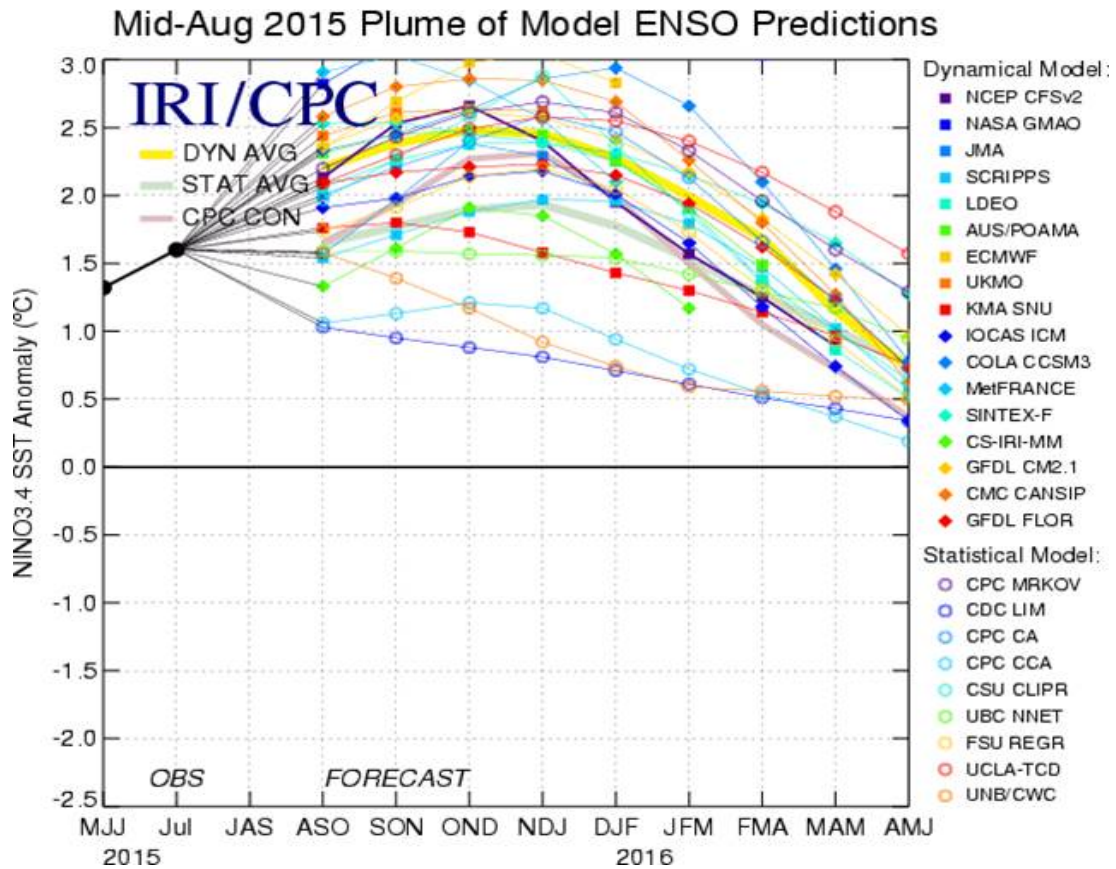
All of the gears are meshing for a major El Nino event as reported in July; and it’s likely to be on par with the 1997-1998 El Nino. That one brought the worst tornado outbreak ever in Florida history along with lots of floods across the southern U.S.

The EL Nino effect normally reaches its maximum in early to mid-winter, but the effect lingers even after its peak, making for a forecast of a very wet late fall and winter for the south. Expect dry and quite mild for southern Canada and the northern U.S.

There is some variability that cannot be forecast months out: The Arctic Oscillation (AO) and the North American Oscillation (NAO). These two patterns are related to pressure differences between the tropics and

the colder northern latitudes; a negative AO means very cold weather in southern Canada and the U.S. as the jet blows in a north to south direction. A strong El Nino with a negative AO would make for lots of snow and ice in the south as we saw in 2009-2010. A positive AO brings an El Nino with more severe weather and rain and milder southern temperatures during the winter. This aspect is simply unknown right now.

The latest El Nino forecast continues to show the strongest event in 20 years, comparable to the 1997-98 episode. Please bear in mind that each El Nino pattern is a bit different than ones before or after, but the general trend for stormy southern skies is usually good. Check out this graph:



As you can see, most of the lines, which are model predictions, go higher than “1.5”, which is the threshold for a strong El Niño. In fact, we’re already crossing the line from moderate to strong...fasten your belt for a bumpy and somewhat unpredictable ride this fall and winter.

October-November Outlook

El Niño becomes more prominent as it gets colder and it’s safe to say we’ll start to see more dramatic effects by October in terms of severe weather events/heavy rainfall over the plains and southern U.S. One or two significant tornado or severe wind outbreaks will be more likely this year than in a typical fall.

Even southern Canada, especially Ontario, is not immune to an occasional tornado in September or October. For the winter, southern Canada and the Great Lakes will be drier than average if this turns out in any way typical for a strong El Niño. Strong east coast storms (New York, Boston) are often found in these types of winters too. Does this mean another snowy winter for Boston (Ugh!)? More on that next month.

Later in the fall to early winter, California, and possibly all the way up to Washington, is likely to get excessive rain. That's great news to ease a five-year drought, but widespread mudslides like those in 1998 are likely if the rains come. There are many hillsides with dead or burned-away vegetation that will make easy targets for a muddy mess.

Look for a fresh El Nino update and a graphical winter outlook in next month's newsletter.

Steve LaNore, Certified Broadcast Meteorologist
Author of *"Twister Tales: Unraveling Tornado Myths"* and
"Weather Wits and Science Snickers"
Available in Kindle, Nook and paperback formats.
