

Weather and Climate Summary and Forecast

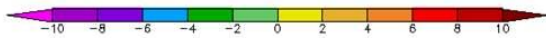
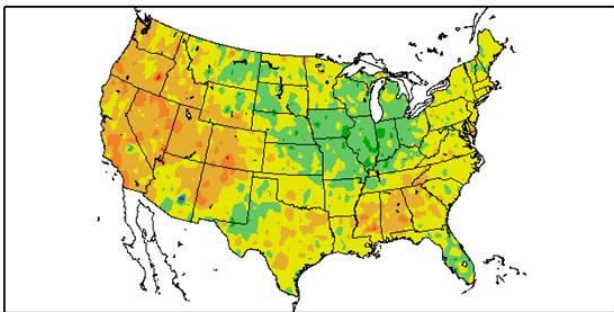
Fall 2014

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Southern Oregon University
October 3, 2014

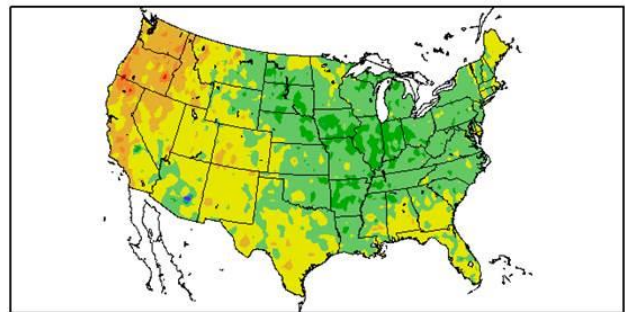
While fall is clearly here with crisp nights and glorious blue skies, September 2014 has been entered into the record books in the western US. The month will be remembered both for record warmth and a single storm event that brought fall's first precipitation ... in record amounts to many areas. Across the US temperatures in September were generally above normal except for a broad area of the Midwest, part of west Texas, and portions of southern Florida where temperatures were 0.5-2.5 degrees below normal (see figure below or attached). Warmer than average temperatures were seen throughout western US (1 to 6 degrees above normal).

Rainfall patterns nationwide during September were again dominated by the monsoon flow and hurricane remnants in the desert southwest across into Texas and up into the northern Rockies. These regions saw September rainfall amounts that were 200-600% of normal (see figure below or attached). The west coast rainfall pattern was mixed with above normal amounts in the Puget Sound and northern Cascades, moderately dry conditions in northern Oregon, then evidence of the 1-6 inch recording breaking rain event September 23-25 from southern Oregon into the Bay Area, and continued extreme dry conditions from the central coast to southern California (except the zone of heavy rain in the LA basin and surrounding mountains from tropical systems).

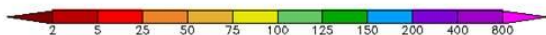
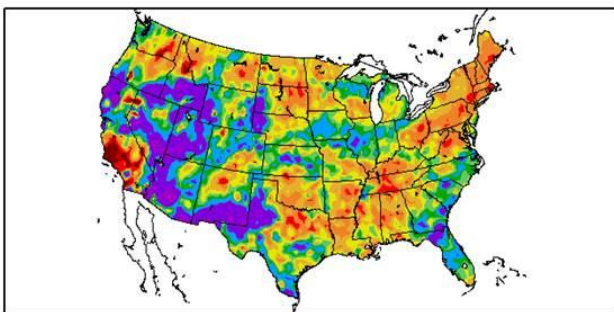
Departure from Normal Temperature (F)
9/1/2014 – 9/30/2014



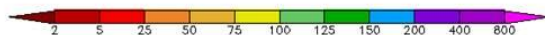
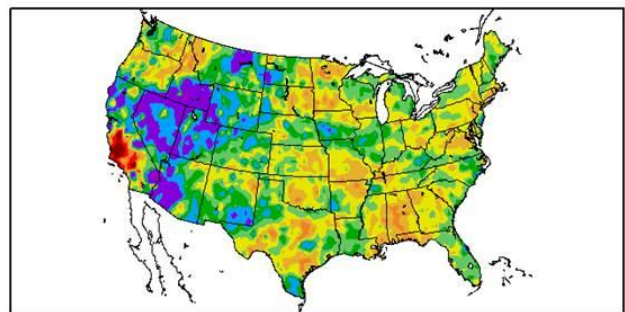
Departure from Normal Temperature (F)
7/1/2014 – 9/30/2014



Percent of Normal Precipitation (%)
9/1/2014 – 9/30/2014



Percent of Normal Precipitation (%)
7/1/2014 – 9/30/2014



The three month period from July through September continued the run of warmer than average conditions over the western US. Much of the west has just experienced its warmest summer on record. However, the eastern US continued to have a cooler than normal summer (see figure above or attached), continuing a pattern that we have seen for nearly two years now - warm/dry west, cool/wet east. The July through September rainfall pattern over the US largely reflects the monsoon and September rain events in the west, thunderstorm events in the central US, and coastal rains along the Atlantic states. While monsoon rainfall did bring some relief to parts of the western US, severe to exceptional drought conditions continue for much of California, Oregon, and parts of Washington (US Drought Monitor figure attached).

September temperatures in Oregon continued above normal with McMinnville, Milton-Freewater, Roseburg and Medford ranging from 2.6 to 4.5°F warmer than average. The September conditions brought the 2014 growing degree-day accumulations to record numbers for three of the four locations. Degree-days are similar or above the 2013 values on this date (the same in Milton-Freewater to 10% up in McMinnville and Medford; see attached). All four locations in the attached plot are running above their 2004-2013 average (11-24%) and their 1981-2010 average (17-28%) for the April through September growing season.

As we move into October and completing the harvest period, the general flow of the atmosphere has not changed significantly, however, shorter days and lower sun angle are bringing nighttime temperatures down. Current short term forecasts are pointing to mild conditions over the west, but little to no rain for the foreseeable future (at least into the middle to end of next week).

The current 6-10 and 8-14 day outlooks from the Climate Prediction Center reflect both the changes in seasonal flow of the atmosphere but also the these broad conditions we have seen for months now. The result is that temperatures in California, Oregon, and Washington are projected to stay seasonally average or above normal through at least mid-October. Rainfall outlooks over the same time period indicate a greater likelihood of dry conditions over most of the west with some indication of continued, but subsiding, monsoon flow in the southwest. The 30 day outlook through the month of October is not much different, with a greater likelihood of warmer and drier conditions along most of the west coast with a greater chance of rain into extreme southern California from the lingering monsoon flow.

The longer term forecast extended out to 90 days (Oct-Nov-Dec) from the Climate Prediction Center forecast continues the 30 day pattern ... likely warm and dry. While we will clearly get our seasonal push of storms and some rain, the chance of drought recovery does not look good right now. That could change as we move further into the winter, but no further developments in El Niño conditions in the tropical Pacific warrant significant forecast changes at this time.

In summary, all evidence continues to point to seasonally mild conditions over the next couple of weeks. Possible chance of rain the middle to end of next week, but nothing substantial on the forecast horizon.

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