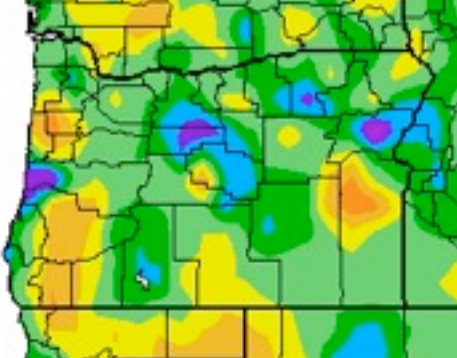


Oregon Climate Service

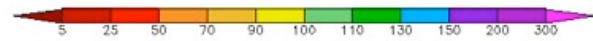
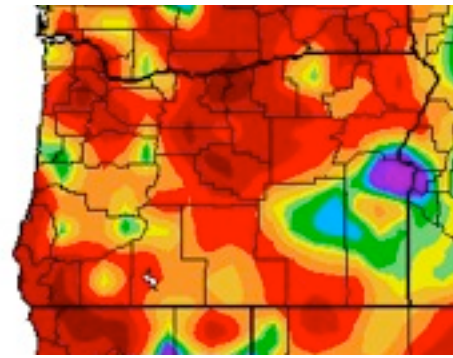
September 2010

August 2010 Temperature and Precipitation

Departure from Normal Temperature (F)



Percent of Normal Precipitation



Figures 1a and b: a) Departure from Normal Temperature (°F) and b) Percent of Normal Precipitation for August (source: HPRCC)

August 2010 was another dry month across much of the state. Precipitation was well below normal during most of August and a storm system brought some much-needed rain to a parched Western Oregon on the last two days of the month.

In step with the somewhat unusual nature of this year's weather, Summer (JJA) precipitation totals were above normal in the Willamette Valley, Oregon Cascades, Snake River Basin and Columbia Plateau, despite the anomalously dry months of July and August. This is owed almost entirely to unseasonably heavy rains in the first week of June. Eugene AP did not record any measurable precipitation during the period of July 2 to August 30.

Though temperatures were overall mostly seasonal for the month, there were some periods of both warmer and cooler than average temperatures. The Willamette Valley broke 100 °F for the first time this year during the most pronounced heat wave in the middle of the month. It is not unusual to top 100°F in this part of the state at least once a summer, and periods of above-average heat (or a heat wave) aren't uncommon. Temperatures climbed back into the 90s and 100s in the last week of August, before dropping down to more fall-like conditions to end the month. A couple of stations posted daily maximum temperature record events during the month. Eugene Airport broke three separate daily maximum temperature records in August. Ontario, OR shattered a daily precipitation record on August 6 with 0.86". The previous record, 0.32" was captured in 1954 (Page 2).

NOAA issued a La Niña Advisory in the first week of August, and La Niña conditions are expected to strengthen and last through Northern Hemisphere winter. In the Pacific Northwest, a La Niña tilts the odds toward a colder and snowier winter. The seasonal outlook from NOAA's CPC for Winter (DJF) shows an above average chance of both temperature and precipitation for these months, consistent with a La Niña (Page 3).

The impacts from thunderstorms were felt around the state; lightning strikes ignited wildfires and a storm brought ping-pong sized hail and street flooding to downtown Medford. (Pages 4 and 5).

August Station Records

Maximum Temperatures

| station | date | new record | old record (year) | yrs in record |
|------------|-----------|------------|-------------------|---------------|
| Astoria AP | August 14 | 90 (tied) | 90 (1942) tie | 57 |
| Eugene AP | August 14 | 101 | 100 (2008) | 120 |
| Eugene AP | August 24 | 96 (tied) | 96 (1982) | 120 |
| Eugene AP | August 25 | 97 | 95 (1967) | 120 |
| Redmond | August 25 | 100 | 96 (2003) | 61 |
| Rome | August 25 | 100 | 99 (1958) | 61 |

Minimum Temperatures

| station | date | new record | old record (year) | yrs in record |
|------------|-----------|------------|-------------------|---------------|
| The Dalles | August 23 | 49 (tied) | 49 (2008) | 62 |
| Moro | August 23 | 40 (tied) | 40 (1925) | 82 |
| Seneca | August 23 | 19 | 21 (1962) | 60 |
| Redmond | August 23 | 32 (tied) | 32 (1971) | 61 |
| Burns | August 23 | 31 | 32 (1992) | 71 |
| Meacham | August 29 | 28 (tied) | 28 (2000) | 62 |

Precipitation (liquid water equivalent)

| city | date | new record | old record (year) | yrs in record |
|------------|-----------|------------|-------------------|---------------|
| Rome | August 12 | 0.42" | 0.39" (1941) | 61 |
| Medford AP | August 17 | 0.78" | 0.44" (1975) | 79 |
| Eugene AP | August 30 | 0.44" | 0.36" (1983) | 120 |
| Ontario | August 6 | 0.86" | 0.32" (1956) | 62 |
| Rome | August 8 | 0.08" | 0.08" (2009) | 61 |

Tables 1, 2, 3 Individual station records for maximum temperature, minimum temperature and precipitation for selected stations in Oregon (via NWS and OSU)

Climate Outlook

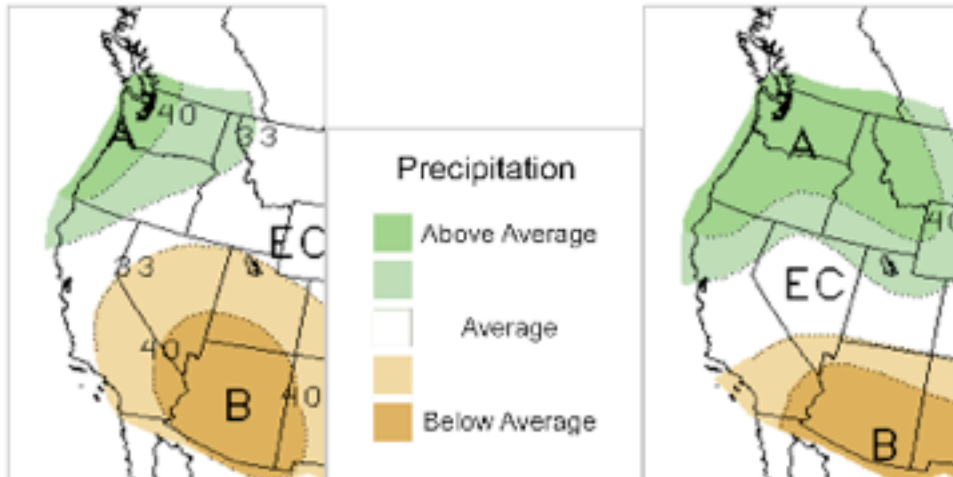


Figure 2. The 90-day probable precipitation outlook for September, October, and November (left), and December, January, February (right). Maps courtesy CPC/NOAA.

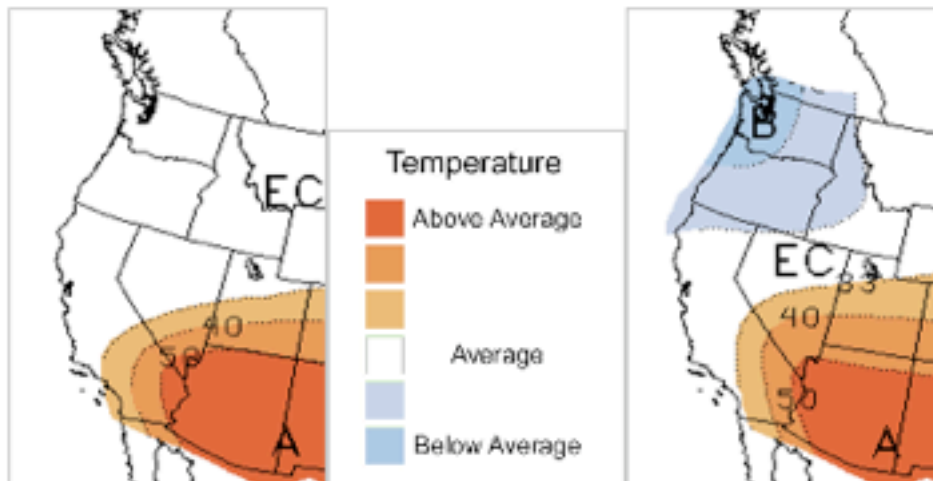


Figure 3 The 90-day probable temperature outlook for September, October, and November (left), and December, January, February (right). Maps courtesy CPC/NOAA

For September, October, and November, the odds are greater for seasonal precipitation to be above average for the Pacific Northwest. There are equal chances for temperatures to be at, above or below average during this time period.

For December, January, and February, consistent with La Niña, chances are greater for above average seasonal precipitation for the Pacific Northwest. The odds tilt toward below average temperatures for this time period in our region, also indicative of the presence of a La Niña.

Please note that these climate outlooks are not weather forecasts. They represent probabilities for the period given, but individual weather patterns within these periods may be variable.

Lightning Sparks Fires in the Central Cascades



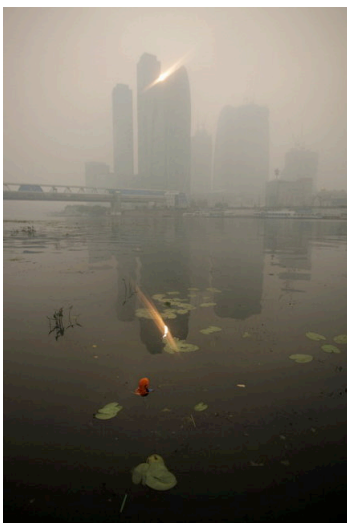
Figure 4. The Scott Mountain fire (left), and a helicopter siphoning water from the Deschutes River (right). Photo credit: Ken Higl/inciweb.org.

On August 17, as many as 30 fires were ignited by lightning strikes in the Central Oregon Cascades. The fires were invigorated by hot weather and strong, dry west winds. The fires include: the View Lake Complex in Mount Hood National Forest, the White Lightning Complex northeast of Warm Springs, the Lower Deschutes Complex, the Scott Mountain Fire in the Mount Washington Wilderness Area, and the Oak Flat Fire 10 miles Northwest of Selma. As of September 1, only the View Lake Complex, Scott Mountain, and Oak Flat fires were still active.



Figure 5. Active Fires as of August 31. Map courtesy BLM.gov.

Russian Haze in the Willamette Valley



Early in August, haze in the Willamette Valley that was speculated to come from a small wildfire near Sisters, OR may have actually been coming from Russia. Meteorologists at the National Weather Service say that smoke from more than 500 wildfires that burned through swamps and forests in Russia followed prevailing winds west to east, made its way across the Gulf of Alaska, and down to the Pacific Northwest. The NASA Earth Observatory confirmed that the Russian smoke reached the stratosphere at altitudes of more than six miles.

Figure 6. A thick, dense haze chokes Moscow, Russia. Photo credit: Alexander Zemlianichenko/AP

Thunderstorm brings hail, flooding to Rogue Valley

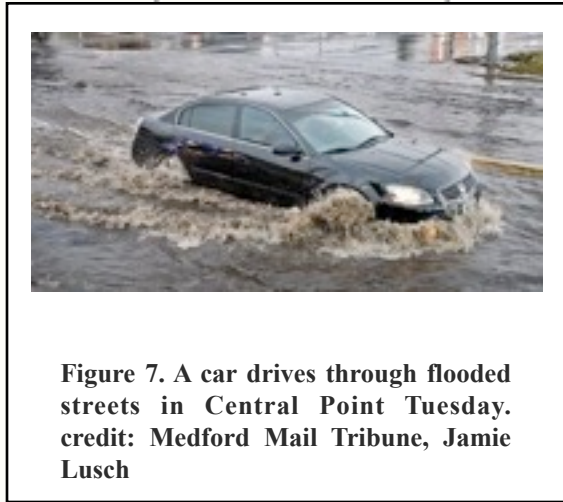
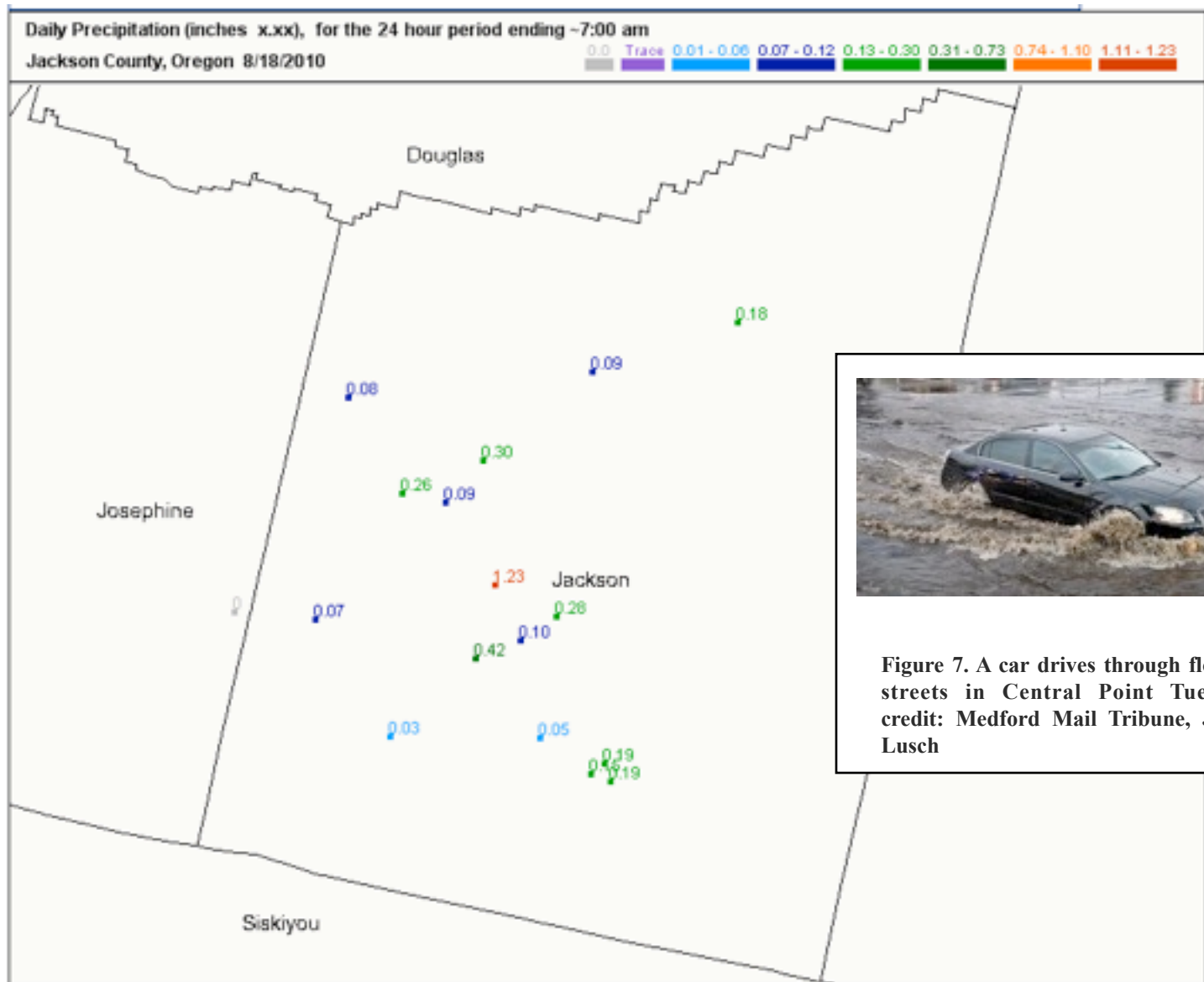


Figure 7. A car drives through flooded streets in Central Point Tuesday. credit: Medford Mail Tribune, Jamie Lusch

Figure 8. Daily Precipitation totals for Jackson County for period ending at 7am on August 18, 2010 map credit: CoCoRaHS

A slow-moving severe thunderstorm dumped rain and hail on the Rogue Valley, causing urban street flooding and threatening crops. National Weather Service in Medford recorded a preliminary total of 0.78” of rain. This was enough to top the previous daily precipitation record of 0.44” (1975). The Storm Prediction Center at NOAA compiled six spotter reports of hail in Jackson County. Hail up to 1.5” in diameter was reported in East Medford. CoCoRaHS spotters recorded up to 1.23” in the 24-hour period ending at 7am on August 18, 2010 (figure 8).

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