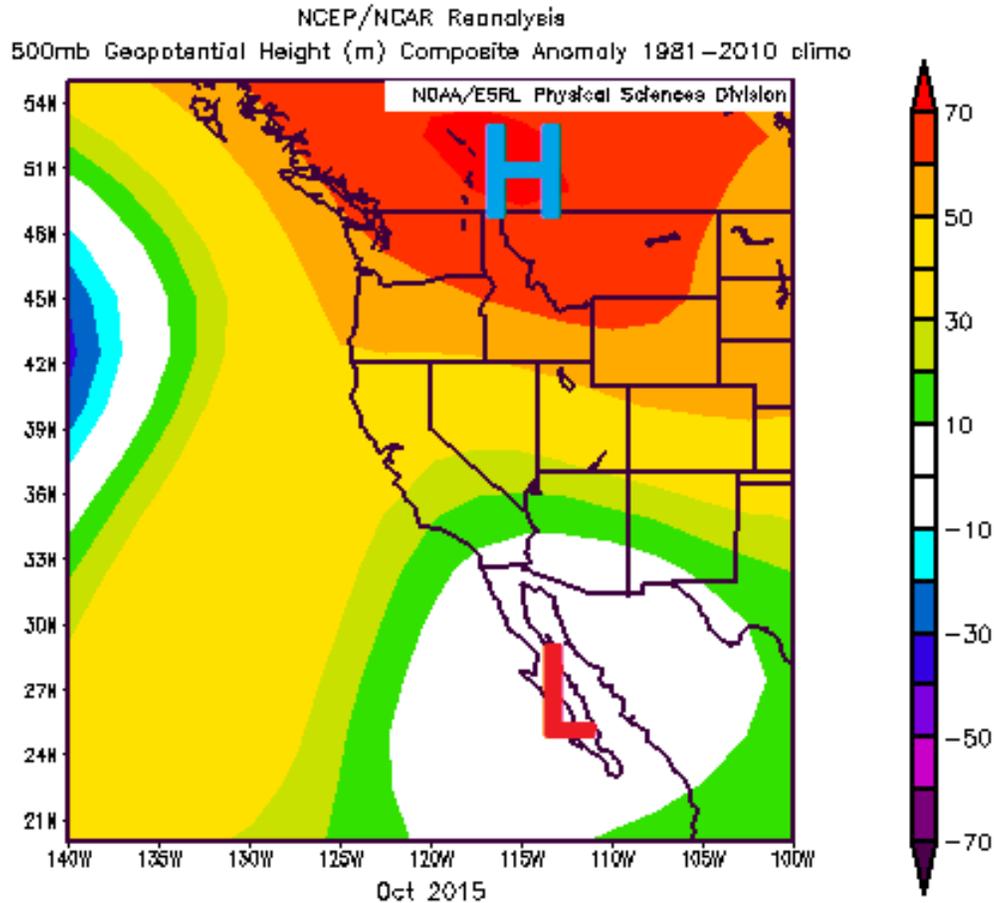


NNSS Climate Summary

October 2015



500 mb height anomalies for October 2015. Courtesy: NOAA/ESRL

A strong El Niño was present in the tropical Pacific and the atmosphere responded to it. The graphic above depicts lower pressure over Mexico, a feature that had a significant impact on October's weather. The month ended up with temperatures above average and precipitation near all-time record levels.

October began with a trough of low pressure entering the West Coast. The base of the trough pinched off to form a cut-off low that was located off the southern California coast on the 4th. The low slowly moved inland through the 6th bringing abundant subtropical moisture northward and set the stage for the first of two heavy rain events that impacted the NNSS. Numerous showers and thunderstorms brought locally heavy rain during this period with most locations receiving 1-3" of rain.

The low was east of the area by the 7th but was not finished with the NNSS. The low made a broad clockwise loop through Mexico during the next seven days and ended up off the southern California coast again by the 15th. Although it had weakened, the low was able to once again bring significant moisture northward from Mexico. The low was drawn northeastward by a trough which moved inland over the West Coast and interacted with the subtropical moisture in place to initiate one of the most significant precipitation events ever observed on the NNSS.

Early morning on the 18th a line of slow moving thunderstorms developed over the NNSS. Very heavy rain with rates in excess of an inch per hour were measured and in some instances persisted for nearly three hours. As a result, widespread flash flooding occurred in Areas 5, 6, 14, 25 and 26 causing damage to roadways and “filling” the dry lakes in Areas 5 and 6. The most significant totals from 18th were 3.50” at Mid Valley, 3.43” at Jackass Flats, and 3.14” at Port Gaston. The system was east of the area by the 19th and left behind sunny and mild weather. A weak system moved through on the 28th and brought some light precipitation to the region. The other story of the month was the warmer than average temperatures. Many locations had high temperatures in the 90’s during the middle of the month with the warmest day being the 12th.

Drought information: The U.S. Drought Monitor has the NNSS classified D2 (Severe Drought). This is an improvement from D3, Extreme Drought.

El Niño update: A strong El Niño is present in the equatorial Pacific. Forecast models are predicting this event to continue through the winter of 2015-16.

Below is data for some select locations.

<u>Station</u>	<u>Highest (°F)</u>	<u>Date</u>	<u>Lowest (°F)</u>	<u>Date</u>	<u>Precipitation (in.)</u>
Mercury	89	12	49	30	2.39
Desert Rock Airport	92	12	45	26	2.12
Frenchman Flat	93	12	39	26	2.39
Rainier Mesa	72	12	30	30	5.50
Yucca Dry Lake	90	12	39	26	3.03

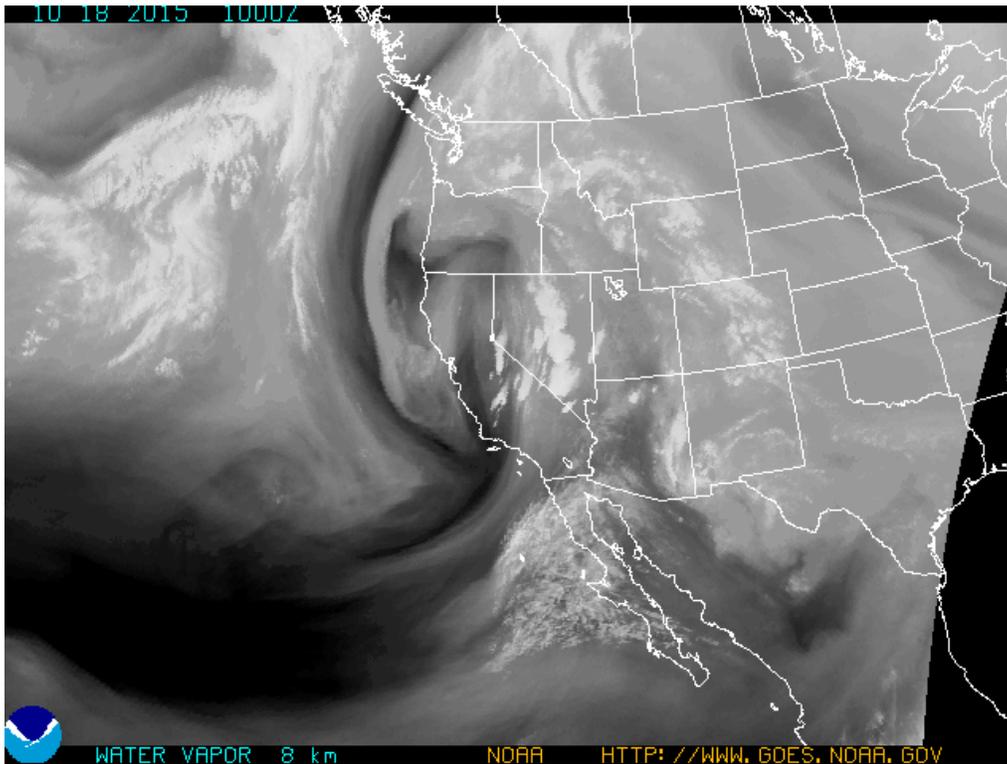
Monthly highlights:

Highest temperature: 93°F at M50 in Area 25
 Lowest temperature: 30°F at Rainier Mesa
 Highest precipitation: 5.50” at Rainier Mesa
 Lowest precipitation: 2.12” at Yucca Mountain and Desert Rock Airport

Hazardous Weather Notifications:

A Wind Advisory was issued for October 1st from 1200 to 1900 PDT.
 A Lightning Alert was issued for October 5th from 0645 to 2000 PDT.

Below are some pictures from the October 18th event.



Water vapor image from 1000 UTC October 18, 2015 showing thunderstorms over Nevada.



Flood damage along the Mercury Highway in Area 6.