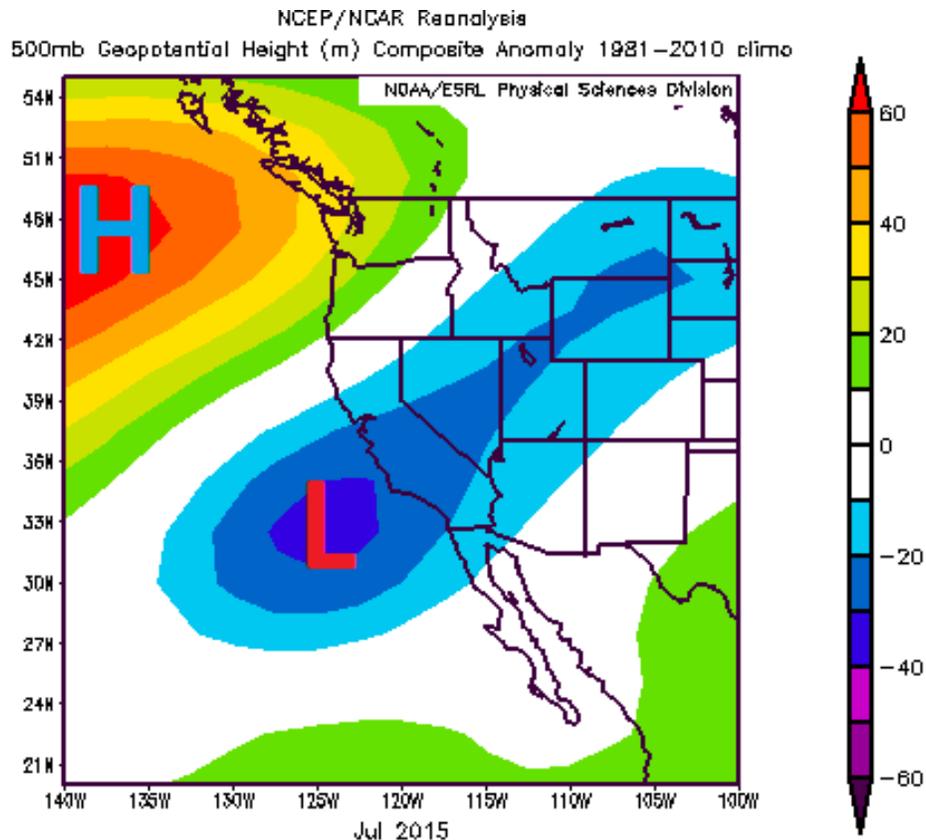


NNSS Climate Summary

July 2015



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

A strengthening El Niño had an impact on the weather during July. A persistent trough of low pressure was located off the West Coast for much of the month and is shown in the plot above by the negative height anomalies off the California coast. This resulted in below average temperatures with several precipitation events affecting the area.

The month started off hot and humid due to the early onset of the monsoon. The strong ridge of high pressure that brought hot temperatures to the area for the second half of June was located in a favorable position to advect moisture northward from Mexico. Mainly afternoon thunderstorms developed daily through the 7th. From the 8th thru 10th, the effects of El Niño began to be noticed when an abnormally strong area of low pressure moved into California from the Pacific. The low initially helped to develop showers and thunderstorms but eventually dry air to the southwest overspread the region and pushed the moisture far to the east.

A trough of low pressure remained off the coast through the end of the month and suppressed the upper-level ridge to the southeast. This pattern continued a mainly dry southwest flow over the area but also served to keep afternoon high temperatures several degrees below average. During this time, Hurricane Dolores developed off the coast of Mexico. The west coast trough helped to turn Dolores to

the north and, on the 19th, a greatly diminished system was located off the southern California coast. Tropical moisture spread northward over the southwestern U.S. generating a widespread precipitation event on the NNSS. All locations received measureable rain with Areas 22 and 23 recording the most with over one half inch. Dry southwest flow returned from the 21st through 30th but July ended with another Pacific system moving into California drawing up moisture from the south which produced afternoon thunderstorms on the 31st.

Drought information: The U.S. Drought Monitor has the NNSS classified D3 (Extreme Drought)

El Niño update: El Niño has reached moderate strength. Forecast models are predicting the event to continue to strengthen into the strong category during 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	99	3	65	20	0.87
Desert Rock Airport	103	3, 5	63	10, 19	1.19
Frenchman Flat	103	29	52	17	1.06
Rainer Mesa	85	1	47	10	1.43
Yucca Dry Lake	98	3, 29	52	16	0.54

Monthly highlights:

Highest temperature: 104°F at Area 25
 Lowest temperature: 47°F at Rainer Mesa
 Highest precipitation: 1.43" at Rainer Mesa
 Lowest precipitation: 0.20" at BJY

Hazardous Weather Notifications:

A Lightning Alert was issued for July 1 from 1500 to 2200 PDT.
 A Lightning Alert was issued for July 2 from 1330 to 2200 PDT.
 A Lightning Alert was issued for July 6 from 1315 to 2000 PDT.
 A Lightning Alert was issued for July 7 from 1145 to 2200 PDT.
 A Lightning Alert was issued for July 8 from 1030 to 1700 PDT.
 A Lightning Alert was issued for July 9 from 1245 to 1900 PDT.
 A Flash Flood Watch was issued for July 20 from 0800 to 2200 PDT.
 A Lightning Alert was issued for July 21 from 1600 to 2100 PDT.
 A Lightning Alert was issued for July 30 from 1145 to 2000 PDT.
 A Lightning Alert was issued for July 31 from 1200 to 2000 PDT.

James Wood