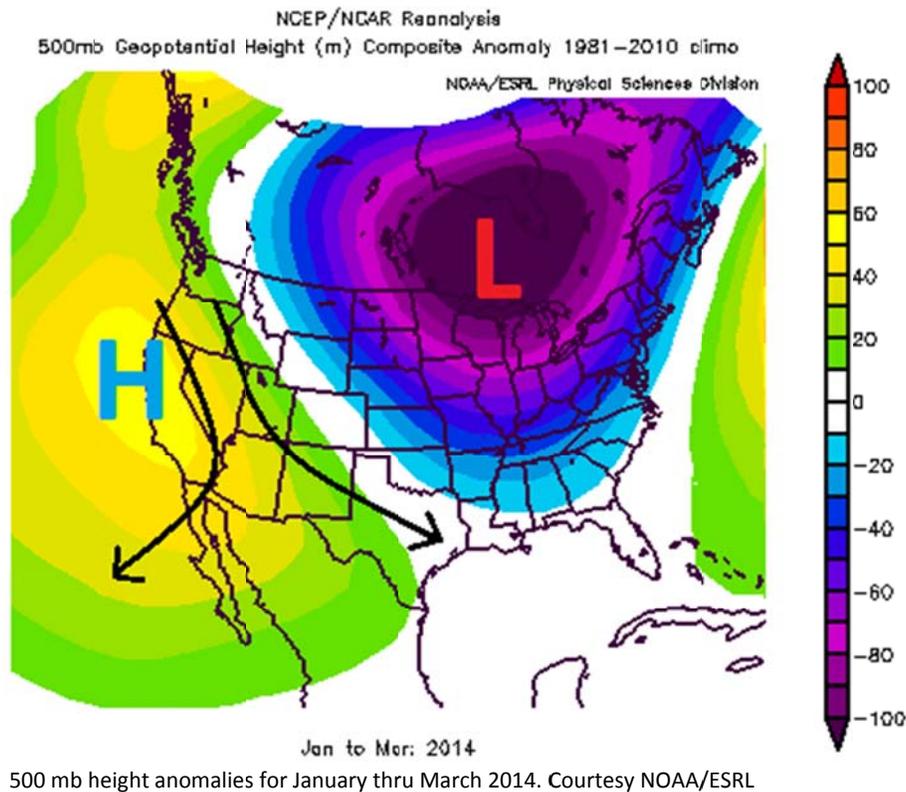


# NNSS Climate Summary

## January – March 2014



The second quarter of FY14 was warm and dry at the NNSS. A persistent upper level pattern with high pressure along the West Coast and low pressure centered south of Hudson Bay remained nearly stationary throughout the period. The image above represents the height anomalies at 500 mb and their effect on the mean flow over the western United States. Although not officially declared, this pattern is similar to that associated with La Nina in the Pacific basin.

January 2014 picked up where 2013 ended with very dry conditions over the Southwest. The difference from December was instead of cold and dry, it was relatively warm and dry. The persistent ridge of high pressure that has dominated the area's weather throughout the fall and early winter was positioned near the west coast for most of the month. This pattern kept the area under dry northwest flow aloft and cold air from Canada was over the eastern half of the U.S. The only exceptions were a couple systems on the 4<sup>th</sup> and 31<sup>st</sup>. They ushered in cooler air and the latter provided the only measurable precipitation for the month.

The pattern shift at the end of January that brought much needed rainfall to northern California and Nevada continued into the first week of February. High pressure was suppressed to the south allowing several systems to have an impact on our weather. Much cooler air overspread the area through the 7<sup>th</sup> with temperatures falling to below average levels.

Conditions returned to those observed during December and January as high pressure once again expanded northward along the west coast during the middle of the month. It remained in place for several weeks deflecting Pacific systems well to the north. The NNSS observed mostly sunny skies with relatively warm temperatures during this time. Afternoon highs peaked on the 16<sup>th</sup> with the lower

elevations reaching the mid 70's. A brief pattern shift on the 19<sup>th</sup> allowed a cold front to traverse the area. Gusty winds associated with the front prompted the first hazardous weather advisory since the beginning of December.

February ended on an active note as a strong Pacific jet stream undercut the high. The 27<sup>th</sup> and 28<sup>th</sup> observed the first significant systems since November to impact the area. The first on the 27<sup>th</sup> had limited moisture so only some light showers were observed. It did bring windy conditions with some sites experiencing gusts above 40 mph. The second and stronger Pacific system approached the coast on the morning of the 28<sup>th</sup>. Widespread precipitation was observed with several sites recording over an inch. Meda 14 in Mid Valley received the most with 1.76 inches of rain. Due to the warm nature of these systems, snow was observed only at the highest elevations.

March started off with cool conditions due to a trough that was briefly over the west. The trough was replaced on the 4<sup>th</sup> as high pressure redeveloped over the area. This allowed afternoon temperatures to rise into the 70's at the warmest locations. The high remained over the West Coast until the end of the month. Several dry cold fronts passed through as they dropped down the backside of the ridge. The main affects were some gusty winds and cooler temperatures. The strongest was on the 17<sup>th</sup> when the first hazardous weather advisory for the month was issued. The cooler air behind these fronts moderated quickly with highs rebounding to the upper 70's and low 80's at the lower elevations. Most locations saw their warmest readings on the afternoons of the 24<sup>th</sup> and 25<sup>th</sup>.

The month ended on an active note as the high was displaced which allowed the jet stream to bring several Pacific systems through the area. A vigorous area of low pressure crossed the Sierra Nevada on the morning of the 26<sup>th</sup> destabilizing the atmosphere. Scattered thunderstorms developed by late morning and affected the area into the early evening. Precipitation amounts were generally light but several sites received over 0.10". A stronger thunderstorm dropped 0.32" in 30 minutes at the RWMC. A second system impacted the area on the 30<sup>th</sup> and was preceded by strong southwest winds. Measurable precipitation was recorded at most locations.

Listed below are some selected stations with temperature and precipitation amounts for the period...

<u>Station</u>	<u>Month</u>	<u>Highest (F)</u>	<u>Date</u>	<u>Lowest (F)</u>	<u>Date</u>	<u>Precipitation</u>
Meda 23 (Mercury)	Jan	68°	18 <sup>st</sup>	35°	8 <sup>th</sup>	0.05"
	Feb	72°	16 <sup>th</sup>	30°	2 <sup>nd</sup>	0.55"
	Mar	76°	25 <sup>th</sup>	38°	18 <sup>th</sup>	0.05"
Desert Rock Airport	Jan	70°	15 <sup>st</sup>	27°	8 <sup>th</sup>	0.09"
	Feb	76°	16 <sup>th</sup>	24°	4 <sup>th</sup>	0.42"
	Mar	80°	25 <sup>th</sup>	38°	18 <sup>th</sup>	0.04"
Meda 43 (Yucca Lake)	Jan	70°	18 <sup>th</sup>	17°	20 <sup>th</sup>	0.07"
	Feb	71°	13 <sup>th</sup>	16°	2 <sup>nd</sup>	0.77"
	Mar	77°	24 <sup>th</sup>	26°	20 <sup>th</sup>	0.17"
Meda 40 (Rainer Mesa)	Jan	54°	17 <sup>th</sup>	15°	31 <sup>st</sup>	0.11"

Feb	60°	13 <sup>th</sup>	11°	1 <sup>st</sup>	0.93"
Mar	59°	16 <sup>th</sup>	22°	11 <sup>th</sup>	0.30"

**Hazardous Weather Notifications:**

A Wind Advisory was issued for February 19<sup>th</sup> from 0730 to 2200.

A Wind Advisory was issued for February 27<sup>th</sup> from 0800 to 2000.

A Wind Advisory was issued for March 17<sup>th</sup> from 1200 to 2000 PDT.

A Lightning Alert was issued for March 26<sup>th</sup> from 1115 to 1700 PDT.

A Wind Advisory was issued for March 29<sup>th</sup> from 1200 to March 30<sup>th</sup> to 0600 PDT.

A Wind Advisory was issued for March 31<sup>st</sup> from 1200 to 2200 PDT.