JULY 2016 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

By Brian Ochs, Climate Services Focal Point
Scott Rowe, Assistant Climate Services Focal Point
WFO San Joaquin Valley-Hanford

A very warm spell that occurred for much of the last week of June continued until the 2nd as high pressure dominated the weather pattern. Temperatures remained around 10-15 degrees above average. The areas that experienced the warmest temperatures were 105 degrees and above in the San Joaquin Valley and around 110 degrees in the Kern County desert areas.

On the 3rd, the high pressure weakened so that temperatures moderated for the next several days; temperatures lowered to around average by the 5th and continued to gradually lower until the 9th. Highs generally ranged around 95 to 105 degrees in the warmest locations.

By the 10th, temperatures had fallen to as much as 10 degrees below average because of a strong and unseasonably cool low pressure system that impacted the Pacific Northwest and Northern Rockies. Very windy conditions impacted the mountain and desert areas, including over exposed peaks and below the passes and canyons in eastern portions of Kern and Tulare Counties. Winds gusted just above 70 miles per hour on some of the exposed mountain peaks, while gusts of around 60 mph were recorded just below, or east of, the Tehachapi Pass along Highway 58. Due to dry vegetation and gusty winds, both a Wind Advisory and a Red Flag Warning were issued for the Kern County mountain and desert areas for the 10th. Very breezy conditions occurred elsewhere, and cooler marine air continued to flow into much of interior Central California. Well below average (by around 10-15 degrees) temperatures prevailed for the next couple of days as a result of this cooler air influx.

On the 14th and 15th, temperatures rose back to several degrees above average as the low pressure trough retreated back to the north and high pressure nudged from the south into central California. While temperatures gradually lowered on the 16th and 17th as the high pressure began to slightly weaken each day, very dry air brought single digit relative humidity during the afternoons to the mountain and desert areas.

Once again, cooler than average temperatures returned to the region on the 18th and 19th, as a low pressure trough over northern California brought some marine air. Some breezy conditions occurred, and winds locally gusted to around 35 to 40 mph along the west side of the San Joaquin Valley and around 45 mph through and just below the passes and canyons in the Kern County mountain and desert areas. Temperatures fell back to the lower to mid-90s in the lower elevations, except the desert areas remained quite warm with afternoon temperatures around 100

degrees. Dry weather continued for the next several days, and temperatures rose a little each day as the ridge of high pressure redeveloped. Temperatures returned to around average by the 22nd. For the last nine days of the month, temperatures rose to above average, and peaked as much as 10 to 15 degrees above average during the 25th through the 30th. High temperatures reached near 110 degrees in both the San Joaquin Valley and the Kern County desert areas. In fact, Bakersfield reached 111 degrees for a high temperature on the 30th, and Fresno reached 109 degrees on the 27th and 29th. Despite this very warm period, no record highs (including both daily maximum and minimum temperatures) were reached at Fresno and Bakersfield during this period or the entire month of July. This period, as well as the earlier half of August, is generally the warmest of the entire calendar year. During the 26th through the 31st, some isolated thunderstorms developed along the Sierra Nevada crest during this time, although the airmass remained too dry for showers and thunderstorms to form elsewhere such as over the Kern County desert areas or the mountain areas south of the Sierra Nevada. Relatively little rainfall fell with any thunderstorms that developed over our forecast area, as the storms tended to produce most of their precipitation east of the Sierra Nevada. The only exception is just above Tuolumne Meadows in Yosemite National Park along the Sierra Nevada crest where one thunderstorm produced hail and brief heavy rain during the afternoon of the 28th. The month ended quite warm, although temperatures managed to drop by around three to five degrees compared to the previous day as a shallow layer of marine air spilled into the San Joaquin Valley.

The month of July was above average in temperature, while precipitation was below average (see Table 1 and Figures 1-2). On average, most of central California receives less than a few hundredths of an inch of precipitation on average during this month, especially in the San Joaquin Valley.

Table 1 – Summary Statistics for ASOS Locations

Table 1 - July 2016 Summary Statistics for ASOS locations

Location	Monthly Avg Temp	Departure From Normal	Total Monthly Precipitation	Departure From Normal
Bakersfield	86.2	2.4	0.00	0.00*
Fresno	84.0	1.0	0.00	-0.01
Hanford	81.3	2.1	0.00	-0.02
Madera	80.2	1.5	0.00	-0.02
Merced	79.0	1.2	0.00	-0.01

*On average, Bakersfield receives a trace of precipitation during the month of July.

Table 2 – Number of Days with Maximum Temperature of 100 degrees or higher (for Bakersfield and Fresno)

Table 2 – Number of 100-Degree Days				
Location	**July 2016 Observed**	**Departure From Normal**	**Calendar Year Observed**	**Departure From Normal**
Bakersfield	15	2	30	11
Fresno	14	1	26	5

Fig 1 - Percent of normal precipitation for July 2016 (map and legend courtesy of Western Region Climate Center):

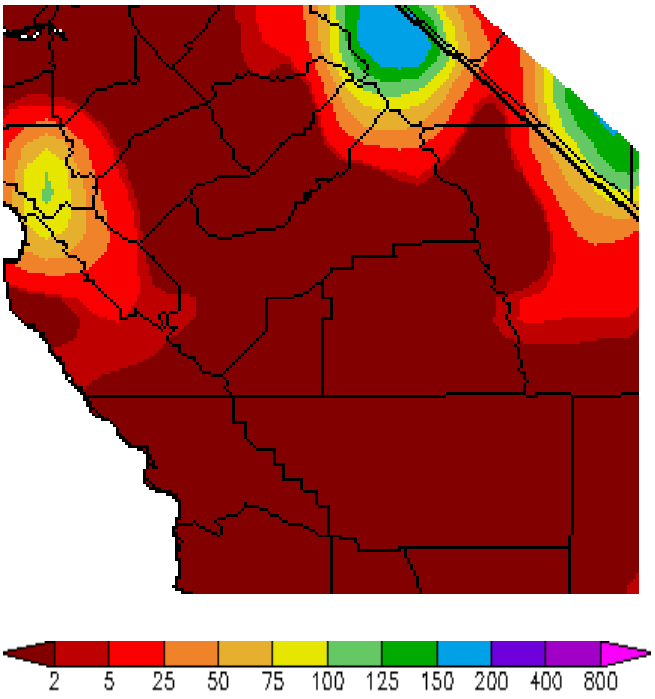
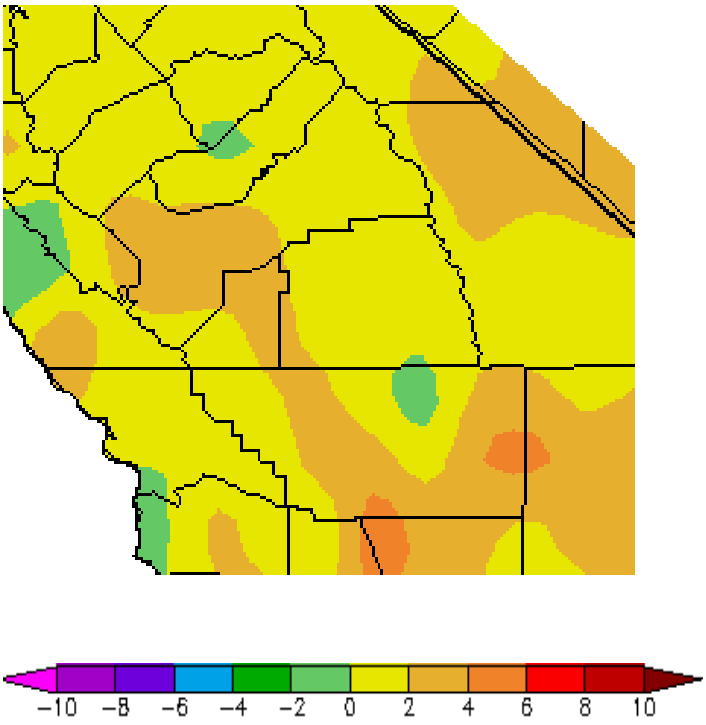


Fig 2 - Departure from average temperature for July 2016 (map and legend courtesy of Western Region Climate Center):



Please note: Normal refers to the latest 30-year period averages, or for 1981-2010.