**AUGUST 2016 WEATHER SUMMARY**
**FOR THE CENTRAL CALIFORNIA INTERIOR**

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Hot weather continued for the first few days of the month, as temperatures remained at least a few degrees above average due to a persistent ridge of high pressure over much of the western United States. High temperatures reached above 100 degrees until the 4th in the San Joaquin Valley, including the highest population centers. The atmosphere remained sufficiently unstable for the development of isolated thunderstorms over the crest of the Sierra Nevada, mainly over Kings Canyon and Sequoia National Parks, during the 1st through the 4th but produced little rainfall. Monsoonal moisture remained limited over our forecast area, as the deeper moisture was well to the east over the eastern Mojave Desert, or near the Arizona and Nevada state lines.

Triple digit highs, however, continued afterward for the next several days in the warmest locations as a weak trough of low pressure brought dry southwest flow aloft. Triple digits became less widespread in the San Joaquin Valley, but continued to prevail throughout the Kern County desert areas. Marine air was relatively deep along the coast, but not deep enough to bring significant cooling into the San Joaquin Valley, as temperatures remained near average during the 5th through the 11th.

Another high pressure ridge built over the region and brought a return to above average temperatures during the 12th through the 20th. Triple digit high temperatures prevailed throughout the San Joaquin Valley and the Kern County desert areas. The warmest temperatures of this period occurred during the 14th-15th when highs exceeded 105 degrees in quite a few locations in the San Joaquin Valley and around 110 degrees in the Kern County desert areas, especially in the vicinity of Ridgecrest and China Lake. There was no activity in terms of showers and thunderstorms until around the 16th , as a very dry airmass prevailed over much of the southwestern United States, with afternoon relative humidity falling as low as one percent in the Kern County desert areas. By the 17th, isolated thunderstorms developed along the Sierra Nevada crest, and coverage increased with each day until the 22nd as instability gradually increased. On the 22nd an upper-level low moved over southern California and brought some showers and thunderstorms to the southern end of the San Joaquin Valley. On the following afternoon, or on the 23rd, isolated thunderstorms remained confined to mainly the Sierra Nevada crest, as there was sufficient residual moisture.

Temperatures gradually cooled over the next several days as the ridge of high pressure weakened and shifted to the east. High temperatures were mainly near average during the 24th and 25th and

fell by several degrees, or to around three to five degrees below average, on the 26th due to an upper level trough over northern California that allowed some marine-cooled air to spill through the passes along the west side of the San Joaquin Valley. The winds were strongest around Pacheco Pass, where gusts to around 35 mph occurred throughout the day and into the evening of the 26th. The upper-level trough brought sufficient dynamics, mainly in the form of favorable winds, for the development of isolated showers along the Sierra Nevada crest during the afternoon of the 26th, but little rainfall occurred as moisture was quite limited due to the deep monsoonal moisture that remained well to the east.

On the 27th through the 31st temperatures were mainly near average as there were no strong ridges of high pressure over central California. During this period, dry southwest flow aloft prevailed so that no significant influxes of moisture impacted the region. A trough of low pressure passed over the region on the afternoon and evening of the 31st, and gusty winds developed in the favored locations of the Kern County mountain and desert areas. A few locales reached around 50 mph on the 31st.

The month ended below average in terms of any precipitation, including in the mountain and desert areas (Fig 1). While no precipitation fell in the San Joaquin Valley this month, the monthly average for August is near zero anyway (such as in Table 1 below). Temperatures were warmer than average for the month overall (Fig 2). No records were tied or broken in either Fresno or Bakersfield for the month. Neither of these locations reached the top 10 warmest Augusts on record.

**Table 1 –** Summary Statistics for ASOS Locations

**Table 1 - August 2016 Summary Statistics for ASOS locations**

| Location | Monthly Avg Temp | Departure From Normal | Total Monthly Precipitation | Departure From Normal |
|---|---|---|---|---|
| Bakersfield | 85.3 | 2.9 | 0.00 | -0.04 |
| Fresno | 82.5 | 0.8 | 0.00 | -0.01 |
| Hanford | 80.5 | 2.3 | 0.00 | -0.02 |
| Madera | 78.9 | 1.8 | 0.00 | -0.02 |
| Merced | 78.0 | 1.7 | 0.00 | -0.01 |

**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** | **August 2016 Observed** | **Departure From Normal** | **Calendar Year Observed** | **Departure From Normal** |
| Bakersfield | 13 | 3 | 43 | 14 |
| Fresno | 13 | 2 | 39 | 7 |

**Fig 1** - Percent of normal precipitation for August 2016:

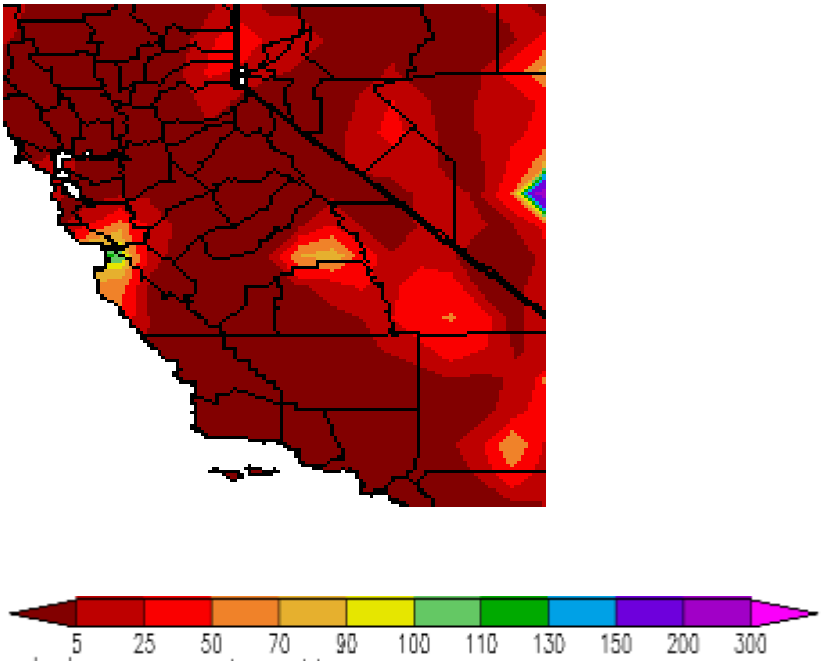
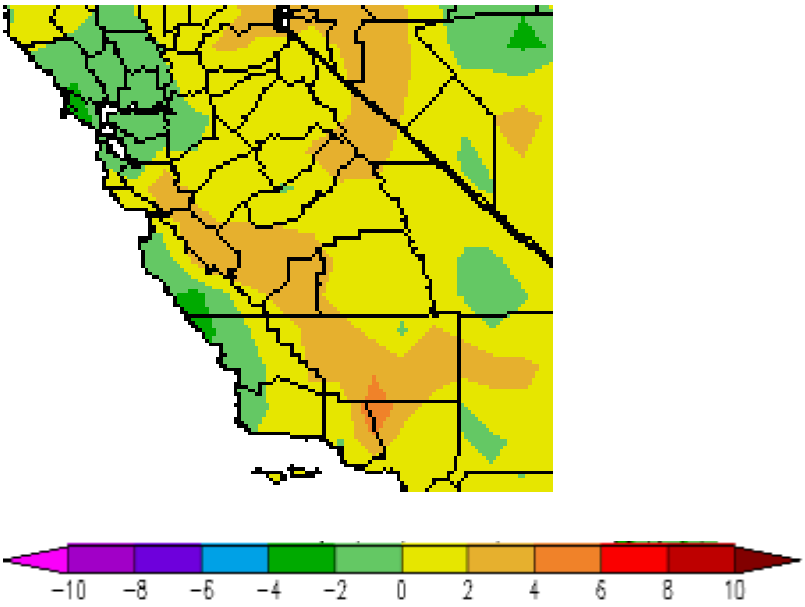


**Fig 2** - Departure from average temperature for August 2016:




Images in Fig 1 and 2 above are courtesy of the Western Region Climate Center.

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