OCTOBER 2014 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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October began with interior central California under a departing dry, upper-level trough that brought mainly average temperatures to the region. By the 2nd, strong high pressure began to build over the eastern Pacific Ocean and moved inland over the region. Temperatures reached around 10-15 degrees above average, although minimum temperatures were around average to slightly above due to the dry airmass in place.

On October 3rd through the 5th, dry, warm air was prevalent over the mountains as an offshore wind pattern developed, especially over Kern County. In anticipation of this warm, dry pattern, a Fire Weather Watch had been issued on October 1st for the 3rd-5th, upgraded to a Red Flag Warning the next day. Afternoon relative humidities in the mountains of Kern and Tulare Counties dropped into the single digits for several hours with poor overnight recoveries. Conditions for the Tulare County mountains improved a bit on the 4th, but remained critical for the mountains of Kern County. The offshore winds weakened after this period; however, temperatures remained warmer than average for the next several days due to strong high pressure.

On the 8th, some mid-level moisture moved into the southern Sierra Nevada from the southeast and brought isolated afternoon and early evening thunderstorms. The thunderstorm activity ended around sunset as the atmosphere stabilized due to loss of solar heating. The moisture also moved east of the region during the nighttime and following day; thus, the threat of storms ended.

Temperatures cooled slightly while remaining well above average on the 9th and 10th, as the high pressure began to somewhat weaken, and a dry upper-level trough moved over the region. The trough was strong enough to bring gusty winds through the passes and canyons in eastern Kern County during the evening of the 9th. Wind gusts reached as high as 61 mph in Mojave, and other locales were around 50 mph in eastern Kern County.

On the 11th, there was slight warming and drying as a weak offshore flow developed over the central California interior. During the following day, a dry upper-level disturbance brought slightly cooler temperatures and locally gusty winds across the San Joaquin Valley. Nonetheless, a strong ridge of high pressure was persistent and dominated over much of California and off the coast since the 2nd day of this month.

Within the next few days, the high pressure ridge began to break down, and it gave way to a dry cold front on the 14th. Strong, gusty winds developed during that evening along the west side of the San Joaquin Valley (Sunflower Valley recorded a gust to 59 mph) and caused dense blowing dust. Visibility dropped to near zero, especially near Lost Hills along Highway 46 and Interstate 5, as well as below the passes to the coastal ranges, including along Highway 41. There was an accident that involved seven vehicles on Highway 41 just below Cottonwood Pass. Blowing dust was observed on the Caltrans web camera in Lost Hills (intersection of Interstate 5 and Highway 46) around 5:00 PM, and this prompted a Dust Storm Warning for much of the evening hours.

Much cooler temperatures arrived over central California as upper-level disturbances reinforced the trough over the western United States from the 15th through the next few days. The high temperature at Fresno on October 15th was 79 degrees, down 14 degrees from the previous day, while Bakersfield's high of 77 was 18 degrees cooler than its high on the 14th. As an indication of how much above normal temperatures had been for the first half of the month, the high temperatures on the 15th actually were near normal for mid-October.

On the 18th, high pressure began to build over the region, and temperatures rose to a few degrees above average until the 20th. Another low pressure system moved over the central California interior on the evening of the 20th, so temperatures fell back to around average by the following day. This weak system brought, a few sprinkles to parts of the central and southern San Joaquin Valley, including Hanford and Madera. Behind the low pressure trough, a northwest flow produced low clouds, and drizzle fell in the Tehachapi Mountains, during the morning of the 21st. A few locations even received a hundredth of an inch of precipitation. On the morning of the 22nd, the coolest low temperatures since May occurred. Lows reached the mid-40s to low-50s throughout the San Joaquin Valley; this is typical for late October.

High pressure returned during the 23rd and 24th and brought warmer, drier air to NWS Hanford's forecast area. Morning lows for these days remained around average for late October, although they were slightly higher than those on the 22nd. The high pressure ridge was strong enough to bring a return of well above average temperatures on the 24th, as highs reached into the upper 80s and lower 90s in the warmest locations in the Kern County mountain and desert areas, as well as the San Joaquin Valley. However, this warming was short-lived, as another upper-level low pressure system affected the region by the following day.

On the 25th, the low pressure trough brought some light rain and gusty winds to central California interior. There was a brief period of blowing dust during the afternoon, especially in Hanford, Lemoore, and locations to the north, such as Fresno. Local visibility reached around a mile or less, including at NWS Hanford. Merced received measurable rainfall at 0.02 inch, while Madera received a trace. A few locations in the foothills got almost two tenths of an inch of rain.

By the following morning, low clouds banked up against the south end of the San Joaquin Valley, as well as north and west facing slopes in the Kern County mountain areas, as upslope, or northwesterly flow prevailed over the area behind the upper-level low. Temperatures remained relatively cool on the 27th; in fact, low temperatures reached into the 40s in much of the San Joaquin Valley. For the first time since late April, the lows were 49 degrees at both Bakersfield and Fresno. Other locations dropped into the lower 40s, such as Hanford, Madera, and Merced.

High pressure began to build over the region once again by the 28th and brought a return of warmer than average temperatures for the last days of October. The weather changed abruptly on the last day of the month, as the first significant storm of the season reached California.

The storm was preceded by gusty winds on the west side of the San Joaquin Valley during the evening of October 30th. Winds gusted to 45 mph at Sunflower Valley, and strong winds continued through the evening hours. After a morning lull, winds again picked up in the afternoon of the 31st as the storm began to move onshore.

By the early evening of Halloween, rain moved into the central San Joaquin Valley, with showers and a few thunderstorms bringing locally heavy rains to the region. Fresno had received a half inch of rain by midnight PST (daily weather data use standard time to avoid the time changes), and 0.64 inch. Winds gusted to around 40 mph in the San Joaquin Valley as the cold front moved through, picking up patchy blowing dust before the rain washed the dust out of the lower atmosphere. Snow fell above 7000 feet in the Southern Sierra Nevada during the early evening hours, with the snow level lowering as the night progressed.

The rain that fell at Bakersfield on October 31st was more than twice the 30-year normal for the entire month (0.30 inch), while Fresno's rainfall of 0.50 inch was less that the normal of 0.63 inch. The rain and mountain snow, while much needed, did little to lessen the impact of the ongoing drought affecting California. Fresno's rainfall deficit for the last three years is nearly 15 inches, and several storms will be needed to make a dent in the shortfall.

October was unseasonably warm, especially due to the number of days with San Joaquin Valley highs in the 90s during the first half of the month. October 2014 was the warmest October on record for Fresno, while Bakersfield had its 8th warmest October on record. For the first 10 months of the year, both Bakersfield and Fresno had their warmest January 1st-October 31st on record.

In terms of rainfall, Bakersfield had its 18th wettest October on record. The wettest October was in 1974 with 1.82 inch of rain. Fresno had its 53rd wettest October on record. The wettest October for Fresno was in 1904 with 3.21 inches of rain.

THE 10 WARMEST OCTOBERS ON RECORD
/AVERAGE TEMPERATURE IN DEGREES FAHRENHEIT/

	BAKERSFIELD	FRESNO
1.	75.2...1978	*72.0...2014*
2.	72.7...1933	71.4...1933
3.	72.4...2003	70.5...1991
4.	72.1...1991	70.1...1987
5.	71.5...1987	69.9...1978
6.	71.5...1980	69.8...2003
7.	71.5...1958	69.3...1917
8.	*71.4...2014*	69.2...1958
9.	71.2...1977	69.1...2012
10.	71.0...1964	68.7...1999