OCTOBER 2012 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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The first three days of this month continued well above average in terms of temperature due to a persistent high pressure in control. A blocking pattern over North America remained in place so that the ridge remained nearly stationary. Record or near-record high maximum temperatures were reached at locations in the San Joaquin Valley from the 1st until the 3rd. High temperatures reached the triple digits in the San Joaquin Valley and the Kern County desert. Fresno tied its record high temperature for October 2nd of 101 degrees, last set in 1980. The night of the 2nd-3rd was unseasonably warm, with temperatures reaching record high minimum values. Fresno had a low of 69 degrees on October 3rd, breaking the high minimum temperature record for the date (68 degrees in 2001), while Bakersfield tied its record high minimum temperature for the 3rd of 72 degrees, last set in 1970.

By the 4th, the upper-level ridge began to weaken, allowing for some marine air to flow into the region. Temperatures cooled by around 10 degrees from the previous day. Cooling continued for the next few days so that temperatures reached near to below average by the 6th. Temperatures only reached the lower 80s in the San Joaquin Valley by the 6th, while they generally remained in the 80s in the desert from the 6th and through the next few days. The first cool-down that occurred on the 4th brought some breezy conditions, mainly in the desert areas, below the passes and canyons, and wind speeds and gusts were generally just below advisory level (i.e., wind gusts less than 45 mph).

Slightly cooler than average temperatures prevailed from the 7th through the next few days, as the upper-level ridge moved westward over the eastern Pacific Ocean. However, a closed upper-level low pressure system moved southward along the coast of California by the 9th and 10th and then moved onshore over southern California by the 11th.

Due to this upper low, shower and thunderstorm activity developed during the afternoon and evening of the 11th over parts of Kern and Kings Counties in the San Joaquin Valley, as well as parts of the southern Sierra Nevada and Kern County mountain and desert areas. Locations in the San Joaquin Valley generally received a tenth of an inch or less of rainfall, while Sierra Nevada locations received as much as nearly three quarters of an inch by the following day. A few locations in the higher elevations of the southern Sierra Nevada received light snow, or as much as two inches. Some showers continued until the 12th in Merced and northern parts of NWS Hanford's county warning and warning area due to wrap-around moisture over the low that

continued moving to the east of the region. Temperatures were well below average as cloud cover remained over much of the area.

On the 13th, low clouds lingered over the southern and eastern sides of the San Joaquin Valley and the Kern County mountains through much of the day. Temperatures remained several degrees below average. By the evening hours, the upper-level ridge returned to the area and set up offshore, or easterly winds over the region, which was indicative of a much warmer temperatures for the region for the following day, with temperatures returning to around average values. Temperatures continued to gradually rise each day through the next couple of days as the ridge continued as the dominant weather feature; temperatures were a few degrees above average by the 16th and peaked on the 18th. Record high maximum temperatures were tied or broken on this day of peak warming; for example, a record high of 95 degrees, that was set back in 1903 in Fresno (i.e., Fresno-Yosemite International Airport), was tied. Fresno also broke its record high minimum temperature for the 18th with a low of 63 degrees. The old record low maximum temperature had been 62 degrees, set in 2009.

By the 19th, high pressure began to weaken and exit the region, while marine-cooled air moved inland from the Pacific Ocean and allowed temperatures to cool by several degrees. In addition, a relatively cold low pressure system was approaching the Pacific Northwest and continued to move toward central California through the next couple of days. Consequently, temperatures cooled another several degrees by the 21st. The storm system arrived by the early morning hours of the 22nd and brought rain and snow to the region. This system was the first winter-like storm to impact the southern Sierra Nevada in terms of snowfall.

The cold front tapered off to the south as it moved through central California. Most of the precipitation fell north of Kern County. Fresno received a quarter inch of rain, and around a tenth of an inch fell in parts of Kings and Tulare Counties, but rainfall in the south end of the San Joaquin Valley was measured only in the hundredths. Up to a foot of snow fell above 7000 feet in the Southern Sierra Nevada.

An unseasonably cold airmass moved into the central California interior behind the cold front. High temperatures in the central and southern San Joaquin Valley north of Bakersfield were only in the 60s, with Fresno tying its record low maximum temperature for October 22nd of 63 degrees, set in 1889. The south end of the San Joaquin Valley was a little warmer, with highs in the lower 70s.

An east-Pacific upper-level ridge slowly built into California, with its progress impeded by a broad trough that covered much of the eastern half of the United States and Canada. Temperatures warmed to near normal by the 25th, and, after one day of near-persistence,

continued warming to above normal on October 27th and to as much as 12 degrees above normal by October 30th.

The average temperature for Fresno for October was 69.1 degrees, for the 8th warmest October on record. The average temperature for Bakersfield was nearly a degree cooler at 68.2 degrees.