NOVEMBER 2012 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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An upper-level ridge was over California at the start of November, creating a stable environment across the central California interior. Fresno tied its record high minimum temperature for the 2nd of 56 degrees, last set in 1941. Areas of fog developed in the central and southern San Joaquin Valley during the morning of November 3rd, but considerably less fog formed the next day.

The ridge remained over California through the 7th, then gave way to an approaching upper-level low. Light showers developed over the Tehachapi Mountains during the late morning of November 8th, as subtropical moisture moved into Kern County and collided with a cold front dropping south through the San Joaquin Valley. This set up a convergence zone over the Tehachapi Mountains that triggered the convection.

Except for along the convergence zone, very little precipitation fell on the central California interior on the 8th. As a result, the air remained moisture laden. A weak short-wave ridge moved over California during the night of November 8th-9th, but this was enough to trigger dense fog development over much of Kings County as well as southern Fresno and western Tulare Counties.

Thunderstorms developed during the afternoon of November 9th. One of these thunderstorms triggered a weak tornado (rated EF0), that touched down 4 miles north northeast of Tipton at 12:55 PM PST. No damage was reported. This was the 86th tornado to touch down in the WFO Hanford's seven-county warning/forecast area since records began in the 1950's, and was the 13th to touch down in Tulare County. Other thunderstorms dropped pea-sized hail on northern Hanford. In the Southern Sierra Nevada, several inches of snow fell above 6000 feet, and a couple of inches of snow fell on the floor of Yosemite Valley.

In the wake of this storm, an unseasonably cold airmass settled over the central California interior. Low temperatures fell below freezing across parts of the central and southern San Joaquin Valley on the morning of November 11th and 12th, and the Kern County deserts had their first hard freeze of the season.

An upper-level low drew subtropical moisture over the southern half of California beginning November 15th. This warm, moist airmass kept overnight low several degrees above normal. The low at Fresno on the 16th was 58 degrees, tying the record high minimum temperature for the date, last set in 1965. The low at Fresno the next day also was 58 degrees. This broke the record

high minimum temperature for November 17th by one degree. The old record had also been set in 1965.

Showers developed over the region on November 17th, as well as a few thunderstorms. One thunderstorm that formed over Madera County lasted for almost three hours as it slowly moved northeast across the county and into the Sierra Nevada foothills. Another thunderstorm dropped heavy rain on Merced County. In the Southern Sierra Nevada, snowfall amounts generally were less than 6 inches, although a couple of sites near the crest reported storm totals around a foot. The cold front that triggered these storms weakened rapidly southward, but sporadic light showers continued across the central California interior into the morning of November 18th.

A weak upper-level disturbance brushed the northern fringes of the WFO Hanford warning/ forecast area on November 20th-21st. This disturbance brought 0.21 inch of rain to Yosemite Valley, with only around a hundredth as far south as Shaver Lake and into the Southern Sierra Nevada foothills near Mariposa and Oakhurst. On the San Joaquin Valley floor, no measurable rain was reported. The Merced Regional Airport did report a trace of rain, and this was the southern extent of the Valley rain from this storm.

Despite the lack of rainfall from the storm on November 20th-21st on the San Joaquin Valley floor, patchy dense fog developed during the morning of the 22nd. Initially the fog formed in the Los Banos area, but this patch of fog eroded from the north. Later, a larger patch of fog developed in the Reedley-Visalia area, and thent spread northward and westward, lingering through much of the morning. At the same time, clouds banked up over the south end of the San Joaquin Valley. The combination of low clouds and fog kept central and south Valley highs in the lower to mid 60s, except for the Madera Regional Airport which only had a high of 58 degrees.

Dense fog redeveloped in the central and southern San Joaquin Valley during the evening of November 22nd, forming a ribbon along the Highway 99 corridor. This narrow band of fog drifted over the Valley floor, causing visibilities at most airports to fluctuate from near zero to a couple of miles. The fog became more widespread toward daybreak, persisting through the late morning of November 23rd.

The 24th saw fog develop later in the night, mainly after midnight. The fog lasted through daybreak, then began to lift by 8 AM in some locations; the fog had completely dissipated by 11 AM.

The stable weather pattern continued through November 27th. The first in a series of east-Pacific storms approached the northern part of the central California interior that evening. These storms tapped into a long fetch of subtropical moisture, with resulting high snow levels through the first day of December.

While the first storm brought between a tenth and a quarter inch of rain to much of the central and southern San Joaquin Valley—north of Bakersfield—it was the second storm that brought significant rain to the central California interior. Fresno had a record rainfall on November 30th of 0.62 inch; the old record was 0.50 inch, set in 1982. In the Southern Sierra Nevada, new snowfall amounts ranged from 8 to 18 inches above the 9,000 foot level. The Sierra foothills saw heavy rain, with amounts as high a 4 inch; some rock and mud slides occurred as the heavy rains weakened the soil.

Bakersfield and the far south end of the San Joaquin Valley remain rain shadowed. Meadows Field recorded only 0.02 inch of rain from each of the first two storm, as the storm track stayed mainly north of Kern County.

The combination of clouds and the warm subtropical airmass also kept low temperatures unseasonably warm. Both Bakersfield and Fresno set record high minimum temperatures on the last day of the month. Both cities had above-normal average temperatures, an Fresno had its sixth warmest November on record. This was also the fourth consecutive month that Fresno ranked in the “top 10 warmest months. August and September 2012 were the warmest months, respectively, on record, and October 2012 was the eighth warmest October on record. Temperature records for Fresno began on August 16th, 1887.