MARCH 2010 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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March began with an upper-level ridge over the central California interior. The ridge kept a low-level inversion over the central and southern San Joaquin Valley, resulting in patchy Tule fog for the first day of the month, mainly near Hanford and Visalia. The ridge was not over the state long, however, as an upper-level trough reach the state the next day, bringing the first, and largest, precipitation event of March to the region.

This was a two-part storm, with the first—and weaker—system arriving on the 2nd, with the stronger system reaching the central California interior the next day. The first system brought up to 9 inches of new snow to the Southern Sierra Nevada in Yosemite National Park and in Madera County, while the focus of the second system was further south. Up to a foot of new snow fell on the Tulare County Mountains above 6000 feet on March 3rd, and up to 5 inches fell in the Tehachapi Mountains. As the second storm moved through the Kern County deserts, it caused gusts up to 58 mph during the evening of the 3rd and through much of the 4th.

An upper-level ridge built into California behind the storm, bringing dry weather and calmer winds. A low-pressure system in the east Pacific dropped south parallel to the coast on March 6th, but the low stayed well offshore and only brought a few showers and thunderstorms to the Kern County Mountains and deserts on the 6th and 7th, including 10 inches of snow that fell on Pine Mountain Club, 6 inches at Alta Sierra, and 2 inches at Frazier Park

After a short break on March 8th, another Pacific storm reached central California on the 9th. This storm brought 5 inches of new snow to the Tulare County Mountains above 6000 feet, and several wind gusts to around 50 mph to the Kern County Mountains and deserts. Isolated gusts over 60 mph also were reported from this storm.

High pressure built back into California behind the storm, but again the break between storms was short-lived as the next storm already was dropping out of the Aleutian Islands. This storm brought another 7-13 inches of new snow to the Southern Sierra Nevada high country on March 12th-13th, up to 1 ½ inch of rain to the Sierra at and below 5000 feet, gusts to 50 mph to the west side of the San Joaquin Valley, and gusts up to 70 mph in the Kern County Mountains and deserts.

An upper-level ridge built over the state for dry weather and above-normal temperatures. Upper-level short-waves moved through the Pacific Northwest and northern California, temporarily flattening the ridge at times and bringing high clouds to the region.

Beginning March 15th, high temperatures in the central and southern San Joaquin Valley were in the 70s to lower 80s for eight consecutive days. Bakersfield had its first 80-degree day of the year on March 20th, with a high of 82. The last time Bakersfield had seen a high in the 80s was on November 4th, which also was Fresno's last 80-degree day.

A mostly dry system moved through California on March 25th-26th. This storm brought more gusty winds to the mountains and deserts, with several gusts in the 40-50 mph range. There were only a couple of gusts that reached the High Wind Warning criteria of 58+ mph, and these were confined to Jawbone Canyon and the south end of the Tehachapi Pass.

March ended with a late-season storm moving through interior central California. Ahead of the storm, temperatures warmed to several degrees above normal, and Fresno finally hit 80 on March 28th, the first time this year. The storm moved into northern California on the 29th, and slowly sagged southward on the 30th. A weak pre-frontal boundary did move south over the central San Joaquin Valley during the afternoon and evening of the 29th, triggering brief gusts to 25-30 mph.

Light rain and mountain snow spread into the northern part of the region during the morning of March 30th, but the main energy of the storm did not arrive until the next day. Rainfall amounts in the central and southern San Joaquin Valley generally were less than two tenths of an inch. However, there were reports of hail up to a half-inch in diameter as weak thunderstorms moved over the east side and south end of the San Joaquin Valley, and a funnel cloud was photographed northeast of the city of Fresno. Two-day snow totals of up to 21 inches were reported in the high country of the Southern Sierra Nevada. In the Kern County Mountains, gusts to 75 mph were measured, while gusts over 50 mph were observed in the Kern County deserts.

Despite a wet start to March—which saw Fresno receive 0.62 inch of rain in 3 days (March 2nd-4th)—rainfall tapered off sharply for the remainder of the month. Fresno had a monthly total of 0.96 inch, only 43.6 percent of the normal for March of 2.20 inches. Bakersfield fared even worse, with a total of only 0.25 inch for March. This was a mere 17.7 percent of the monthly normal of 1.41 inch. Even so, the rain season through March 31st was almost exactly normal for both cities (100.2 percent for Bakersfield; 101.1 percent for Fresno), due to above normal rainfalls during December through February (except near normal for Fresno in January).

ADDENDUM TO THE FEBRUARY 2010 CLIMATE SUMMARY

After the February 2010 summary was written, a National Weather Service survey of a possible tornado in Kern County on February 27th confirmed the touchdown. The summary of the tornado follows.

…The February 27th Southwestern Kern County Tornado…

Thunderstorms over the southern San Joaquin Valley during the afternoon of February 27th spawned a tornado over southwestern Kern County. At 1645 PST (0045Z on the 28th), a weather spotter reported a tornado over an oil field 15 miles northeast of the city of Taft. The National Weather Service Doppler Radar at Hanford indicated moderate convection near the time and location of the report. The tornado was rated EF0 on the Enhanced Fujita scale.

This tornado was the second tornado in the central and southern San Joaquin Valley so far this year. The last tornado was on January 18th, just west of the city of Fresno. The last tornado in Kern County was on September 1st, 2007, near the city of Rosamond.