

## **FEBRUARY 2008 WEATHER SUMMARY**

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The unsettled weather from the last days of January continued into the first few days of February, as the next Pacific storm dropped out of the Gulf of Alaska and into California. By the time the storm ended on the 3<sup>rd</sup>, Fresno's three-day rain total was 0.67 inch, and stations from the Merced airport south through Bakersfield reported storm totals between 0.60-0.70 inch, except for the rain-shadowed west side of the San Joaquin Valley, where the Hanford airport had less than half an inch of rain.

In the Southern Sierra Nevada, up to 18 inches of snow fell in the high country above 7000 feet, with 4-6 inches of snow falling in the Tehachapi Mountains. The storm brought a push of cold air to the region, resulting in low snow levels. Measurable snow fell into the Sierra foothills and below the Pass level in the Tehachapi Mountains. The storm also brought gusty winds to the region. Gusts to 45 mph were recorded in the central San Joaquin Valley during the afternoon and night of February 2<sup>nd</sup>, and gusts over 50 mph hit the Indian Wells Valley on the 3<sup>rd</sup>.

A tranquil weather pattern set in behind the storm. An upper-level ridge of high pressure built into California on the 8<sup>th</sup>. The stable airmass combined with surface moisture from the earlier rains for the development of dense fog during the night of February 8<sup>th</sup>-9<sup>th</sup>. After a brief respite from the fog on the 10<sup>th</sup>, dense fog returned the next two nights. The fog was a major factor in a series of chain-reaction accidents on Highway 99 near Kingsburg during the morning of February 12<sup>th</sup>. At least four separate accidents occurred, involving at least 40 vehicles and resulting in at least 10 people being injured. (News accounts said as many as 12 were injured, and initial reports said around 60 vehicles were involved. CHP reports favored the lower numbers.)

A dry cold front moved through California on the 13<sup>th</sup>. Winds gusted to around 50 mph in the Kern County mountains and deserts on the 13<sup>th</sup>, with a gust to 76 mph reported by the RAWs above Walker Pass and a gust to 82 mph measured by the Jawbone Canyon RAWs. The winds continued into the morning of the 14<sup>th</sup> in the high country of the Southern Sierra Nevada, and were observed in the Diablo Range on the west side of the San Joaquin Valley; whitecaps were reported on the San Luis Reservoir on the morning of February 14<sup>th</sup>.

A cold airmass settled into the San Joaquin Valley behind the cold front, bringing frost to the Valley floor. Low temperatures in the central and southern San Joaquin Valley the morning of February 15<sup>th</sup> were as low as 28 degrees, and over a dozen stations had lows below 32 degrees.

High pressure built back into California on February 16<sup>th</sup>, warming temperatures to near to a few degrees above normal. Temperatures continued to warm through the 18<sup>th</sup>, ahead of a series of three Pacific storms that moved through the central California interior from February 20<sup>th</sup> through the 24<sup>th</sup>.

The storms brought a mix of rain, mountain snow, and thunderstorms to the region. As the first storm moved into central California, a severe thunderstorm developed southwest of Lake Isabella during the late morning (1030 PST) of February 20<sup>th</sup>, with nickel-size hail reported near the town of Havilah. Other thunderstorms developed over the southern San Joaquin Valley shortly after noon, but did not reach severe levels. As the cold front moved through the Kern County deserts during the afternoon of the 20<sup>th</sup>, it generated wind gusts of 45 to 55 mph.

The second storm brought up to 15 inches of snow to the high country of the Southern Sierra Nevada, while the third storm brought more than double that amount to the Sierra on the 23<sup>rd</sup> and 24<sup>th</sup>. A severe thunderstorm developed near Arvin at 1246 PST on February 22<sup>nd</sup>, with nickel-size hail reported. Thunderstorms continued over the central and southern San Joaquin Valley through the afternoon of the 22<sup>nd</sup>, but these storms remained below severe levels.

The third storm brought gusty winds to the central and southern San Joaquin Valley on the 23<sup>rd</sup> and 24<sup>th</sup>, with a gust to 53 mph recorded at Meadows Field, Bakersfield, and gusts estimated as high as 70 mph over the far south end of the San Joaquin Valley, as southeast to south winds funneled through the Tehachapi Pass and the Grapevine onto the Valley floor. Gusts to 36 mph were measured as far north as Castle Airport at Atwater, in Merced County.

There was strong rain-shadowing over the southern San Joaquin Valley, as southwest winds aloft carried the storms through central California. Fresno had a five-day storm total of 1.45 inch, 68 percent of the total rainfall for February of 2.12 inches. Bakersfield received only 0.22 inch of rain for the five-day period, and only trace amounts fell at Meadows Field on February 21<sup>st</sup> and 23<sup>rd</sup>. (Fresno's rainfall for the month matched its 30-year normal rainfall for February of 2.12 inches. Bakersfield had a monthly total of 0.82 inch, 67.8 percent of its normal of 1.21 inch.)

High pressure aloft built over California behind the storm complex. Despite abundant ground moisture and a stable airmass, only patchy fog developed across the central and southern San Joaquin Valley, with dense fog limited to the Madera-Merced-Atwater and Hanford-Visalia-Selma areas. Temperatures warmed to well above normal under the upper-level ridge, with both Bakersfield and Fresno warming into the mid 70s on the 29<sup>th</sup>. Fresno tied its record high of 76 degrees for Leap Year Day, a record last set in 1924.