

Storm Data and Unusual Weather Phenomena - February 2012

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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CALIFORNIA, South Central

(CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z091) SW S.J. VALLEY, (CA-Z092) SE S.J. VALLEY, (CA-Z095) KERN CTY MTNS

	02/06/12 09:00 PST		36K	Strong Wind (MAX 45 kt)
	02/07/12 12:00 PST		0	

(CA-Z095) KERN CTY MTNS

	02/06/12 17:48 PST		0	High Wind (MAX 61 kt)
	02/07/12 17:00 PST		0	

February began with an upper-level trough moving through California. The trough brought gusty winds to the mountain and desert areas, with gusts to 40 mph continuing below the Tehachapi Pass into the evening hours of the 1st. However, it had no effect on the above-normal temperatures across the region, as highs at both Bakersfield and Fresno were 7 degrees above normal.

An upper-level ridge built into the state behind the trough. With a stable airmass in place, a stratus layer formed over the San Joaquin Valley on February 2nd. A dry northwest flow set up over California, with the central California interior between the departing trough to the east and the ridge to the west. This flow helped dissipate the stratus as the day progressed, with the last vestiges of the stratus lingering over the east side of the San Joaquin Valley and the adjacent foothills.

The ridge remained over California through February 6th, and then it gave way to an approaching upper-level trough. Patchy fog developed over Merced and Madera Counties during the morning of the 3rd; otherwise mostly clear skies prevailed across the region. Overnight temperatures fell into the 30s under the clear skies, but highs in the central and southern San Joaquin Valley warmed into the mid 60s to mid 70s each day from the 3rd through the 5th.

The upper-level trough moved into the central California interior on February 6th. Temperatures over the northern parts of the region cooled, but the south end of the San Joaquin Valley warmed into the mid 70s in strong pre-frontal warming. Strong southeast winds funneled through the passes of the Tehachapi Mountains into the far south end of the Valley, spreading as far north as Bakersfield. Winds gusted to 73 mph at Grapevine Peak on the 6th, and to 45 mph at Meadows Field. A dust storm was created near Lamont by the gusty winds with near-zero visibility. Gusts between 35-45 mph continued over the central and southern San Joaquin Valley continued on February 7th, and sustained wind speeds of 53 mph near Pine Mountain Club in the Tehachapi Mountains.

On the afternoon of the 6th, strong winds in the Bakersfield area caused blowing dust. Winds estimated around 35 mph at around 545 pm caused blowing dust and a school bus and big rig collided at Fairfax Road and Panorama Boulevard in Bakersfield due to blowing dust.

On the morning of the 7th, strong winds knocked down power poles in both the Fresno and Bakersfield areas.

Clouds associated with the trough spread over the San Joaquin Valley on the 7th and kept night-time temperatures mild. Both Bakersfield and Fresno set record high minimum temperatures for the date of 53 degrees, with the low at Meadows Field occurring only 25 minutes before midnight.

(CA-Z099) SE KERN CTY DESERT

	02/11/12 21:57 PST		1K	Strong Wind (MAX 40 kt)
	02/12/12 08:00 PST		0	

(CA-Z093) S SIERRA FOOTHILLS, (CA-Z094) TULARE CTY FOOTHILLS, (CA-Z095) KERN CTY MTNS

	02/13/12 14:12 PST		0	Winter Weather
	02/15/12 12:00 PST		0	

February 9th saw an upper-level ridge over California. The ridge continued the above-normal temperatures over the region, with Bakersfield setting a record high for the 9th of 77 degrees, and Fresno tied its record high of 71. The above-normal temperatures continued on the 10th, with Bakersfield and Fresno coming just short of their record highs.

This ridge was short-lived, as a series of upper-level troughs flattened the ridge beginning on February 11th, and brought colder weather to the region. The first trough brought a few showers to the central California interior around sunrise, and showers continued to develop through the day. In addition to the showers, clouds associated with the trough kept minimum temperatures well above normal, with both Bakersfield and Fresno having lows on the 11th in the lower 50s; neither city set a record.

As the first trough exited the region during the evening of February 11th, gusty winds developed over the Kern County mountains and desert. Gusts to 45 mph were reported behind the cold front. The highway patrol reported Highway 58 was closed due to gusty winds.

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In the San Joaquin Valley, it was the lack of wind that produced a stable airmass over the Valley floor. Patchy fog developed shortly before sunrise on the 12th, with a few spots reporting visibilities of less than a quarter mile.

The second trough brought up to a foot of snow to the Southern Sierra Nevada on February 13th. Winds gusted between 45-55 mph over the Kern County mountain and desert areas during the afternoon and evening of the 13th, and a mid-day shower dropped quarter-inch hail on parts of Bakersfield.

A third trough, on February 15th, brought gusty winds to the west side of the San Joaquin Valley, with gusts to 40 mph reported through much of the morning. Eight inches of snow fell near Fish Camp, and 2 inches of snow were reported at Coarsegold. Highway 41 into the Southern Sierra Nevada was closed at Oakhurst due to snow. The CHP escorted traffic over the I-5 Grapevine in Kern County and Tehachapi piled up 8 inches of snowfall.

Behind this final trough, cold air settled into the San Joaquin Valley. An upper-level ridge built into the state, bringing mostly clear skies and light winds. Radiational cooling resulted in late season frosts over the region during the early morning of February 16th.

(CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z090) E CENTRAL S.J. VALLEY, (CA-Z091) SW S.J. VALLEY, (CA-Z092) SE S.J. VALLEY

02/16/12 03:00 PST	0	Frost/Freeze
02/17/12 08:00 PST	0	

Behind this final trough, cold air settled into the San Joaquin Valley. An upper-level ridge built into the state, bringing mostly clear skies and light winds. Radiational cooling resulted in late season frosts over the region during the early morning of February 16th.

An upper-level trough moved through the central California interior on February 18th. This trough brought spotty light showers to the region, and wind gusts to around 40 mph in the Kern County desert. The main impact on the central and southern San Joaquin Valley was another surge of cold air behind the cold front. High temperatures on February 19th were several degrees cooler than the previous day.

A trailing short-wave dropped through California on February 20th. This disturbance triggered a couple of afternoon showers near the Southern Sierra Nevada crest, but otherwise had no impact on the central California interior. Temperatures in most locations around the region were a few degrees warmer as the cold air began to moderate.

An upper-level ridge built toward the California coast on the 22nd, and remained near the state the next several days. Temperatures warmed to above normal on February 22nd, and a few degrees warmer on the 23rd before leveling off the next day as the ridge remained just offshore.

The upper-level ridge moved onshore on February 24th ahead of an approaching upper-level trough. This brought strong warming to the central and southern San Joaquin Valley, with both Bakersfield (81) and Fresno (77) breaking their record high temperatures for the date by one degree. For Fresno, this broke a record that had stood for 116 years, since 1896. For Bakersfield, this was only the second time this year that the high was in the 80s. The other time was January 2nd, when the high was 82 degrees.

(CA-Z095) KERN CTY MTNS

02/27/12 11:00 PST	0	Winter Weather
02/27/12 21:00 PST	0	

(CA-Z096) S SIERRA MTNS

02/29/12 02:00 PST	0	Winter Storm
02/29/12 23:59 PST	0	

The first in a series of three upper-level troughs reached the California coast on February 25th. Although this storm did not bring any precipitation to the central California interior, it did cool temperatures back to near normal for all areas except the deserts.

The second trough approached California the following day. This system split as it neared the coast, with the southern part diving southward parallel to the coast before turning onshore during the evening. As this system moved into southern California, it brought snow to the Kern County mountains. Up to 4 inches fell on the Tehachapi Mountains at the pass level, and Interstate 5 over the Grapevine was closed for several hours during the afternoon of February 27th. Trace amounts of snow fell on Grocer Grade in the Temblors and at Glennville in the Southern Sierra Nevada. Bakersfield received 0.12 inch of rain from the storm, nearly doubling its rainfall for February.

The northern part of this storm moved into northern California on the 27th.

Upper-level disturbances rotating around the low moved into the central California interior during the late afternoon, triggering showers that continued into the late evening. One shower strengthened as it moved off the Diablo Range into the western San Joaquin Valley, and dropped hail on Interstate 5 northeast of Coalinga. Snow fell as low as the 3000-foot level in the Southern Sierra Nevada, and Lodgepole received 3 inches of new snow. Further north, Yosemite Valley reported an inch of snow.

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The storm moved into the Great Basin during the early morning hours of February 28th. With available ground moisture, a few patches of fog formed in the central and southern San Joaquin Valley. Otherwise, it was dry in the San Joaquin Valley with temperatures near to a few degrees warmer than the previous day (except at the south end of the Valley where clouds cleared and there were several degrees of warming).

The third storm approached the northern California coast during the afternoon of February 28th. A strong upper-level jet dived under the low, and pushed the storm inland during the evening. This storm had better dynamics than its predecessors, and thunderstorms developed along the cold front while it was off shore, continuing as the front moved onto the coast. The storm mainly affected northern California, but it did drop slowly southward during the day on the 29th. Measurable rain finally reached Fresno late in the afternoon of February 29, and Kings and Tulare Counties shortly thereafter. It was locally windy on the west side of the San Joaquin Valley, and over the Kern County mountains and deserts. Nearly a foot of snow fell on the high country of Yosemite National Park, and the Park Service reported that 4 to 6 inches of snow fell on the floor of Yosemite Valley. Further south, up to 9 inches of snow fell in the Southern Sierra Nevada high country in Fresno County, and Lodgepole in Sequoia National Park reported 5 inches of new snow.

The rain that fell at Fresno-Yosemite International Airport on "Leap Day," 0.27 inch, accounted for over a third of the total February rainfall at Fresno (0.75 inch), and was close to the total for February at Meadows Field, Bakersfield (0.29 inch). Despite the series of storms at the end of February, the central California interior's rainfall remained well below normal, both for the month and for the rain season. Average temperatures for February were slightly above normal at both Bakersfield and Fresno.