

Storm Data and Unusual Weather Phenomena - November 2011

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

(CA-Z092) SE S.J. VALLEY, (CA-Z095) KERN CTY MTNS

	11/02/11 02:13 PST		4K	Strong Wind (MAX 43 kt)
	11/02/11 16:00 PST		0	

(CA-Z095) KERN CTY MTNS

	11/02/11 07:51 PST		0	High Wind (MAX 61 kt)
	11/02/11 16:21 PST		0	

(CA-Z096) S SIERRA MTNS

	11/03/11 19:00 PST		0	Winter Weather
	11/04/11 07:00 PST		0	

November began with an upper-level ridge over California giving way to a short-wave trough that cooled temperatures to below normal. This short-wave set the stage for the arrival of a strong Pacific storm that brought rain and mountain snow to the region.

Strong winds developed in the Tehachapi Mountains and over the south end of the San Joaquin Valley on November 2nd. Winds gusted as high as 70 mph at the base of the Grapevine, including the Interstate 5 corridor, and blowing dust was reported in Tehachapi and downtown Bakersfield, while the Highway Patrol reported heavy winds across Bear Mountain Road, Lamont and Hart Flat.

Winds increased elsewhere in the San Joaquin Valley during the afternoon and evening of November 3rd as the cold front moved into the Valley. The strongest winds were reported across western Kern and Kings Counties with gusts to around 50 mph.

Tuolumne Meadows in Yosemite National Park received 8 inches of snow during the night of November 3rd-4th, and an inch of snow fell at Bear Valley Springs and Pine Mountain Club in the Tehachapi Mountains during the morning of the 4th.

(CA-Z096) S SIERRA MTNS

	11/05/11 22:00 PST		0	Winter Weather
	11/06/11 09:00 PST		0	

Behind a fast moving cold front was an unseasonably cold airmass that plunged snow levels into the foothills. By the morning of November 6th, snow was falling down to 2700 feet near Lake Isabella (a half inch of snow was reported at Mountain Mesa), and up to 2 inches of snow fell at 4000 feet. Further north, Tuolumne Meadows received another 8 inches of snow during the night of November 5th-6th.

The San Joaquin Valley saw temperatures fall to well below normal. The high temperature at Bakersfield on November 4th was only 56 degrees, just 1 degree above the record low maximum temperature for that date (55 in 1996). The next day, Fresno did break its record low maximum temperature for the 5th with a high of 57 degrees; the old record was 58, set in 1996. Two days later, Bakersfield tied its record low maximum temperature for November 7th of 58 degrees, last set in 1963.

In the cold, unstable air behind the front, scattered showers developed across interior central California, and even isolated thunderstorms. The airmass over the San Joaquin Valley stabilized as an upper-level ridge built into California behind the trough. With ground moisture from the showers of November 6th, conditions were right for the development of patchy fog the following morning. Fog was not the only concern for interior central California, however. The unseasonably cold airmass also brought sub-freezing temperatures to parts of the Kern County deserts.

(CA-Z095) KERN CTY MTNS

	11/10/11 03:59 PST		0	High Wind (MAX 60 kt)
	11/10/11 06:07 PST		0	

(CA-Z093) S SIERRA FOOTHILLS, (CA-Z094) TULARE CTY FOOTHILLS, (CA-Z095) KERN CTY MTNS, (CA-Z096) S SIERRA MTNS, (CA-Z097) TULARE CTY MTNS

	11/11/11 18:00 PST		0	Winter Weather
	11/12/11 07:00 PST		0	

A low pressure trough moved into California on November 10th. Ahead of the trough, a strong offshore flow brought southeast winds to the region. As these winds downsloped through the Tejon and Tehachapi Passes, very warm and above-normal temperatures occurred in the south end of the San Joaquin Valley. Bakersfield had a high of 78 on November 10th, and 76 the next day. Winds gusted at the base of the Grapevine as well, reaching 61 mph during the afternoon of November 10th, and 73 mph before sunrise the following morning.

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This storm also brought snow across the Southern Sierra and Kern County Mountains. Snowfall reports included 7 inches of new snow at Ponderosa and 2th. Snow fell at Pine Mountain Club (at 6100 feet in the western Tehachapi Mountains) during the evening of November 11th, and winds gusted to 56 mph at the base of the Grapevine during the morning g hours of the 12th. A high pressure ridge built over the east Pacific, setting up a dry northwest wind flow over California.

(CA-Z096) S SIERRA MTNS, (CA-Z097) TULARE CTY MTNS

11/20/11 04:00 PST	0	Winter Weather
11/20/11 16:00 PST	0	

(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, (CA-Z099) SE KERN CTY DESERT

11/20/11 21:24 PST	0	Dense Fog
11/22/11 11:00 PST	0	

The next in the series of storms arrived two days later. The storm brought a reinforcing push of cold air into the San Joaquin Valley, plunging high temperatures into the 50s. The high temperature at Bakersfield on November 20th was only 53 degrees, only 4 degrees warmer than the record low maximum temperature for the date of 49 degrees, set in 1922. Fresno had a high of 55 on the 20th, again only 4 degrees warmer than the record low maximum of 51 degrees, set in 1972. For both cities, this was the coldest high temperature for the month.

The upper-level low stayed off the California coast, spinning moisture into the state from the south. As a result, this storm brought more rain to the Southern San Joaquin Valley than to the central Valley. Even so, there was sufficient rain over most of the Valley floor to recharge the ground moisture. Areas of dense fog developed over the central and southern San Joaquin Valley during the morning of November 21st, persisting into the late morning hours in some locations. Morning fog also developed the next two mornings. Fog also developed in the Kern County deserts during the night of November 20th-21st, with the visibility at Edwards Air Force Base falling to less than a quarter mile shortly after midnight.

Snowfall in the mountains was moderate with this storm. The heaviest snow totals were reported at Agnew Pass, Tamarack Summit, Quacking Aspen, and Blackcap Basin, where around 10 inches accumulated.

(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

11/27/11 00:00 PST	0	Dense Fog
11/29/11 11:00 PST	0	

(CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z090) E CENTRAL S.J. VALLEY

11/30/11 14:30 PST	0.23M	Strong Wind (MAX 45 kt)
11/30/11 23:59 PST	0	

(CA-Z093) S SIERRA FOOTHILLS, (CA-Z096) S SIERRA MTNS, (CA-Z098) INDIAN WELLS VLY

11/30/11 16:00 PST	0.20M	High Wind (MAX 68 kt)
11/30/11 23:59 PST	0	

A low pressure trough moved into California on November 24th. This system brought some light rain to the region, but the main impact was from the mid and high clouds ahead of the cold front. These clouds inhibited fog development, resulting in a mostly fog-free Thanksgiving Day morning. Dense fog returned the next morning, mainly over the east side of the San Joaquin Valley and persisting into the late morning hours. The dense night and morning fog became more widespread over the central and southern San Joaquin Valley from November 26th through the 28th as a stagnant weather pattern lingered over central California.

A strong upper-level trough approached the central California interior on November 29th, destabilizing the airmass and reducing the San Joaquin Valley fog. A tight surface pressure gradient developed over California, resulting in northeast winds gusting over 60 mph across the Southern Sierra Nevada. High winds developed on November 30th which is a relatively rare phenomenon known as a Mono Wind Event across the Sierra Nevada. This event continued into the first two days of December and caused extensive tree damage across much of the Southern Sierra Nevada. Please see the December, 2011 storm data report for more details on this event.

At the lower elevations, a cold front moved through the San Joaquin Valley on November 30th, bringing northwest winds gusting to near 50 mph. The front also triggered high winds over the Kern County deserts, with gusts between 55 to 75 mph across the Inyokern area. Local media reported roof damage to a home in Inyokern and some trees and powerlines downed. Mountain waves developed over the south end of the Sierra Nevada during the evening of November 30th. One wave touched down near The Walker Pass, with the Blue Max weather station reporting a wind gust to 88 mph.