

Storm Data and Unusual Weather Phenomena - March 2009

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

(CA-Z096) S SIERRA MTNS				
	03/01/09 16:00 PST		0	Winter Weather
	03/02/09 22:00 PST		0	

(CA-Z096) S SIERRA MTNS, (CA-Z097) TULARE CTY MTNS				
	03/03/09 16:00 PST		0	Winter Storm
	03/04/09 16:00 PST		0	

March began with an upper-level low off the California coast. Strong warming in the south end of the San Joaquin Valley gave Bakersfield a record high of 86 degrees, which almost was the warmest day of the month at Meadows Field. The low drew subtropical moisture into interior central California from the southwest, bringing rain and high-elevation snow to the region. In Yosemite National Park, a foot of new snow fell at Tuolumne Meadows during the night of March 2nd-3rd. Colder air moved into the region during the 3rd as a slow moving cold front dropped south. The high at Fresno dropped from 67 on the 3rd to only 59 on the 4th, and Bakersfield's high fell 13 degrees—from 74 on the 3rd to only 61 the next day. More snow fell over the Southern Sierra Nevada beginning the night of March 3rd and continuing through the 4th. Estimated snowfalls at SNOTEL sites ranged from 15 inches to around 2 feet. With a cold, unstable airmass over the San Joaquin Valley, conditions were right for thunderstorms to form over the west side of the San Joaquin Valley during the afternoon and evening of March 4th. The trough pulled east of California during the morning of March 7th. This system brought the bulk of March's precipitation to central California, with Fresno having a storm total of 0.18 inch, and Bakersfield receiving 0.20 inch. With the moist lower levels of the airmass over the San Joaquin Valley, patchy fog developed during the morning hours of the 7th.

(CA-Z098) INDIAN WELLS VLY, (CA-Z099) SE KERN CTY DESERT				
	03/09/09 15:00 PST		1K	Strong Wind (MAX 48 kt)
	03/09/09 18:00 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				
	03/10/09 03:00 PST		0	Frost/Freeze
	03/10/09 08:00 PST		0	

A dry system moved through California on March 8th and 9th, bringing only some high clouds and locally gusty winds to the Kern County mountains and deserts. Winds gusted in excess of 45 mph at both Mojave and Ridgecrest during the afternoon and early evening of the 9th. In the wake of this storm, a cold airmass lingered over the San Joaquin Valley. Temperatures plummeted into the mid 20s in the coldest Valley locations during the morning of March 10th. Naval Air Station Lemoore had a low of only 24 degrees, while the airports at Merced and Porterville dropped to 27 degrees.

(CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z091) SW S.J. VALLEY, (CA-Z098) INDIAN WELLS VLY, (CA-Z099) SE KERN CTY DESERT				
	03/21/09 16:00 PST		2K	Strong Wind (MAX 43 kt)
	03/22/09 23:00 PST		0	

(CA-Z096) S SIERRA MTNS, (CA-Z097) TULARE CTY MTNS				
	03/21/09 17:00 PST		0	Winter Storm
	03/22/09 17:00 PST		0	

(CA-Z095) KERN CTY MTNS				
	03/22/09 12:00 PST		0	High Wind (MAX 50 kt)
	03/22/09 23:00 PST		0	

The second major storm of March arrived on the 21st, heralded by strong winds ahead of the cold front. Several gusts between 45 and 50 mph were reported in the Kern County desert, and gusts of 35 to 38 mph were recorded on the west side of the San Joaquin Valley during the afternoon and evening of the 21st. Thunderstorms developed over the Sierra Nevada foothills in Madera and Mariposa Counties during the early morning of March 22nd, and showers spread over the San Joaquin Valley. The storm brought up to two feet of new snow to the higher elevations of the Southern Sierra Nevada. Up to an inch of rain fell in the Sierra foothills, but only light rain fell on the San Joaquin Valley floor. Bakersfield had the highest storm total of the reporting Valley sites, with 0.16 inch of rain. The storm brought a very cold airmass to the region. The high at Fresno on March 22nd was only 55 degrees, 18 degrees cooler than the previous day's high of 73. Bakersfield had a high of 63 on the 22nd, a drop of 15 degrees from the high of 78 degrees on the 21st. Clouds cleared during the night of March 22nd-23rd, and winds subsided, allowing temperatures in the central and southern San

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Joaquin Valley to fall below freezing for a late-season frost. Coalinga dropped to a low of 25 degrees, and the Porterville Municipal Airport fell to 30 degrees. Naval Air Station Lemoore, Lemon Cove and Lindsay had lows of 31.

(CA-Z089) W CENTRAL S.J. VALLEY, (CA-Z090) E CENTRAL S.J. VALLEY, (CA-Z091) SW S.J. VALLEY, (CA-Z095) KERN CTY MTNS, (CA-Z098)

INDIAN WELLS VLY, (CA-Z099) SE KERN CTY DESERT

	03/29/09 13:00 PST		3K	Strong Wind (MAX 44 kt)
	03/29/09 20:00 PST		0	

(CA-Z099) SE KERN CTY DESERT

	03/31/09 17:56 PST		0	High Wind (MAX 60 kt)
	03/31/09 23:59 PST		0	

South winds developed over the Tehachapi Mountains on March 27th, and downsloped into the south end of the San Joaquin Valley. Temperatures warmed to well above normal, with Bakersfield reaching a high of 85 degrees. The low at Meadows Field on the 27th was 56 degrees, which was just 1 degree from the record high minimum temperature for the date (57 degrees in 1978). The winds subsided during the night as an upper-level ridge of high pressure moved over the San Joaquin Valley. This ridge brought continued well-above-normal temperatures to the Valley on March 28th. Fresno had a high of 81 degrees, the first 80-degree day since November 18th, 2008. Bakersfield warmed to 87 degrees, just missing a 106-year-old record high of 88, set in 1893. The 87 degrees at Meadows Field was the warmest day in March for Bakersfield. Likewise, Fresno's 81 degrees was its warmest day for the month.

An upper-level disturbance tracked across the Pacific Northwest during the night of March 28th-29th, then dropped into the Great Basin. Although this disturbance did not bring any precipitation to the region, it did bring gusty winds to the Kern County mountains and deserts on the 29th, and even some locally gusty winds to the San Joaquin Valley during the afternoon and evening. Gusts to around 40 mph were widespread across the San Joaquin Valley floor, and gusts in the mountains and deserts were between 45 and 50 mph.

March ended with a dry upper-level disturbance moving into the Pacific Northwest and California. This disturbance brought another round of gusty west winds to the Kern County mountains and deserts during the evening of the 31st, with winds gusting between 40 and 50 mph.