## Storm Data and Unusual Weather Phenomena - July 2011

Location Date/Time Deaths & Property & Event Type and Details

Injuries Crop Dmg

## **CALIFORNIA**, South Central

(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

07/02/11 11:00 PST 0 Heat

07/10/11 17:00 PST 0

July began with an upper-level ridge building into California in the wake of the storms that marked the last days of June. Temperatures warmed to near normal on the first day of the month, and continued to warm the next several days. Bakersfield recorded 9 consecutive days of triple digit heat from July 2nd-10th, and Fresno had 8 consecutive days. Both cities had highs of 106 degrees on July 4th (the hottest day of the period), with Bakersfield repeating the next day.

KERN COUNTY --- 2.0 S ROSAMOND ARPT [34.84, -118.20], 3.3 SE ROSAMOND [34.83, -118.14], 3.3 NE ROSAMOND [34.90, -118.12], 2.7 N ROSAMOND ARPT [34.91, -118.19]

07/04/11 15:30 PST 5K Flash Flood (due to Heavy Rain)

07/04/11 17:30 PST 0 Source: Newspaper

Local newspaper reported street flooding from heavy thunderstorm rains. Heavy rain occurred for 30 minutes with 1.17 inches of rianfall. The thunderstorm also produced minor street flooding and pea sized hail. Power outages also affected the city.

KERN COUNTY --- 0.3 ESE ROSAMOND [34.87, -118.16]

 07/05/11 16:00 PST
 10K
 Thunderstorm Wind (EG 50 kt)

 07/05/11 16:15 PST
 0
 Source: Trained Spotter

Thunderstorm winds knocked down trees and power poles in Rosamond. Also, blowing dust closed nearby Highway 58 for a short time due to near-zero visibility.

KERN COUNTY --- 3.1 NNW RICARDO [35.42, -118.00], 2.9 NNE RICARDO [35.42, -117.96], 5.0 NNE RICARDO [35.45, -117.94], 6.2 N RICARDO [35.47, -117.94]

-117.98]

07/05/11 16:26 PST 2.50K Flash Flood (due to Heavy Rain)

07/05/11 18:26 PST 0 Source: Trained Spotter

The highway patrol reporting flooding on California Highway 14 at Red Rock-Randsburg Road.

An upper-level trough moved through the region on July 4th-6th. The trough interacted with a surge of monsoonal moisture, bringing thunderstorms to the Southern Sierra Nevada, Tehachapi Mountains and the Kern County deserts. The afternoon of July 4th saw gusts of 50-55 mph in the Kernville/Lake Isabella area, and hail up to a half-inch in diameter fell at Ponderosa in the Tulare County mountains. Heavy rain fell in Rosamond, with a spotter reporting 1.48 inch of rain that caused street flooding.

Thunderstorms redeveloped during the afternoon of July 5th. Strong winds knocked down trees and utility poles in Rosamond. The winds also caused blowing dust with zero visibility that closed Highway 58 between Mojave and California City. Flooding was reported in Rosamond and on Highway 14 at the Red Rock-Randsburg Road later in the afternoon as thunderstorms continued over the region. The storms continued the next day as the trough began moving east of the central California interior. Heavy rain was reported at Hume Lake on the 6th, with an inch of rain falling in 1 ½ hour. The trough brought cooling to the region, with Fresno having a high of "only" 100 on the 5th, although temperatures rebounded to 105 the next day as the ridge strengthened over the state behind the departing trough.

San Joaquin Valley temperatures continued in triple digits from the 7th through the 9th, with some locations—including Bakersfield—having triple-digit heat on the 10th.

FRESNO COUNTY --- 1.8 SW MONO HOT SPGS [37.31, -119.04]

FRESNO COUNTY --- 0.7 N CEDAR GROVE [36.79, -118.67]

07/30/11 10:51 PST 0 Heavy Rain 07/30/11 12:51 PST 0 Source: Mesonet

Two-hour rainfall total was 0.89 inches. The thunderstorm dropped 0.87 inches from 1251 PDT to 1351 PDT.

KERN COUNTY --- BORON [35.00, -117.65], 3.9 SSE NORTH MUROC [34.95, -117.79]

 07/30/11 13:55 PST
 0
 Thunderstorm Wind (MG 53 kt)

 07/30/11 14:15 PST
 0
 Source: Trained Spotter

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Trained spotter and Edwards mesonet observations indicated wind gusts to around 60 mph from a thunderstorm outflow. No damage was reported.

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	07/30/11 15:57 PST		0	Heavy Rain
	07/30/11 17:57 PST		0	Source: Mesonet
One hour rainfall amount, from a h	eavy thunderstorm, was 1.06 inches.			
KERN COUNTY 10.5 S ONYX [3	35.53, -118.20 <u>]</u>			
_	07/30/11 16:00 PST		0	Heavy Rain
	07/30/11 18:00 PST		0	Source: Mesonet
In only 33 minutes, a heavy thunde	erstorm dropped 0.56 inches of rain.			
KERN COUNTY 4.8 NE SUMMI	T SWITCH [35.20, -118.36]			
	07/30/11 16:30 PST		0	Heavy Rain
	07/30/11 18:30 PST		0	Source: Mesonet
One hour rainfall from a heavy thur	nderstorm was 1.44 inches at Whiterock Cre	eek.		
KERN COUNTY 8.7 ENE CLAR			9], 11.6 ENE CLAF	RAVILLE [35.51, -118.18], 10.1 NE
KERN COUNTY 8.7 ENE CLAR	nderstorm was 1.44 inches at Whiterock Cre  AVILLE [35.49, -118.22], 9.5 ENE CLARAVI		-	•
,	nderstorm was 1.44 inches at Whiterock Cre  AVILLE [35.49, -118.22], 9.5 ENE CLARAVI  07/30/11 17:06 PST		5K	Flash Flood (due to Heavy Rain)
KERN COUNTY 8.7 ENE CLAR	nderstorm was 1.44 inches at Whiterock Cre  AVILLE [35.49, -118.22], 9.5 ENE CLARAVI		-	•
KERN COUNTY 8.7 ENE CLAR CLARAVILLE [35.52, -118.22]	nderstorm was 1.44 inches at Whiterock Cre  AVILLE [35.49, -118.22], 9.5 ENE CLARAVI  07/30/11 17:06 PST	LLE [35.47, -118.1	5K	Flash Flood (due to Heavy Rain)
KERN COUNTY 8.7 ENE CLAR. CLARAVILLE [35.52, -118.22]  The highway patrol reported a muc	AVILLE [35.49, -118.22], 9.5 ENE CLARAVI  07/30/11 17:06 PST  07/30/11 18:06 PST	LLE [35.47, -118.1	5K 0	Flash Flood (due to Heavy Rain) Source: Law Enforcement
KERN COUNTY 8.7 ENE CLAR. CLARAVILLE [35.52, -118.22]  The highway patrol reported a muc	AVILLE [35.49, -118.22], 9.5 ENE CLARAVI  07/30/11 17:06 PST  07/30/11 18:06 PST	LLE [35.47, -118.1	5K 0	Flash Flood (due to Heavy Rain) Source: Law Enforcement
KERN COUNTY 8.7 ENE CLAR. CLARAVILLE [35.52, -118.22] The highway patrol reported a muc	AVILLE [35.49, -118.22], 9.5 ENE CLARAVI 07/30/11 17:06 PST 07/30/11 18:06 PST dlisde on Kelso Creek Road in the Kern Cour	LLE [35.47, -118.1	5K 0 51], 0.6 WSW JOH	Flash Flood (due to Heavy Rain) Source: Law Enforcement
KERN COUNTY 8.7 ENE CLAR. CLARAVILLE [35.52, -118.22]  The highway patrol reported a muc TULARE COUNTY 3.9 NE ROA JOHNSONDALE [36.00, -118.49]	AVILLE [35.49, -118.22], 9.5 ENE CLARAVI  07/30/11 17:06 PST  07/30/11 18:06 PST  dlisde on Kelso Creek Road in the Kern Coul  DS END [35.97, -118.45], 1.0 NNW ROADS	LLE [35.47, -118.1 nty Mountains. END [35.94, -118.5	5K 0 <b>51], 0.6 WSW JOH</b> 25K 0	Flash Flood (due to Heavy Rain) Source: Law Enforcement  NSONDALE [35.97, -118.54], 3.2 NE  Flash Flood (due to Heavy Rain) Source: Law Enforcement
KERN COUNTY 8.7 ENE CLAR. CLARAVILLE [35.52, -118.22]  The highway patrol reported a muc TULARE COUNTY 3.9 NE ROA JOHNSONDALE [36.00, -118.49]	AVILLE [35.49, -118.22], 9.5 ENE CLARAVI  07/30/11 17:06 PST  07/30/11 18:06 PST  dlisde on Kelso Creek Road in the Kern Count  DS END [35.97, -118.45], 1.0 NNW ROADS  07/30/11 17:36 PST  07/30/11 18:36 PST  orted a mudslide which caused damage to S  ER [36.70, -119.55]	LLE [35.47, -118.1 nty Mountains. END [35.94, -118.5	5K 0 51], <b>0.6 WSW JOH!</b> 25K 0 way and Mountain	Flash Flood (due to Heavy Rain) Source: Law Enforcement  NSONDALE [35.97, -118.54], 3.2 NE  Flash Flood (due to Heavy Rain) Source: Law Enforcement  Highway 99 near Johnsondale.
KERN COUNTY 8.7 ENE CLAR CLARAVILLE [35.52, -118.22]  The highway patrol reported a mucture of the county 3.9 NE ROA JOHNSONDALE [36.00, -118.49]  The California Highway Patrol reported in the county in t	AVILLE [35.49, -118.22], 9.5 ENE CLARAVI  07/30/11 17:06 PST  07/30/11 18:06 PST  dlisde on Kelso Creek Road in the Kern Coul  DS END [35.97, -118.45], 1.0 NNW ROADS  07/30/11 17:36 PST  07/30/11 18:36 PST	LLE [35.47, -118.1 nty Mountains. END [35.94, -118.5	5K 0 <b>51], 0.6 WSW JOH</b> 25K 0	Flash Flood (due to Heavy Rain) Source: Law Enforcement  NSONDALE [35.97, -118.54], 3.2 NE  Flash Flood (due to Heavy Rain) Source: Law Enforcement

A 21- Year old woman was struck in the ankle while inside her home by lightning. She was standing near a sliding glass door.

On the 28th, southeast winds aloft began to bring mid-level moisture from northern Mexico and the Desert Southwest. For the first time in approximately three weeks, isolated thunderstorms developed over the Sierra crest around Kings Canyon and points just to the north and east. The surge of monsoonal moisture continued through the end of the month, with the strongest thunderstorm activity on July 30th and the morning of the 31st. A few thunderstorms over the Southern Sierra Nevada had rain rates of an inch or more in an hour, and a severe thunderstorm moved over Edwards Air Force Base during the afternoon of the 30th. The warm nature of the monsoonal moisture kept central and southern San Joaquin Valley high temperatures around 100 degrees through July 30th.

A line of thunderstorms moved through the central and southern San Joaquin Valley during the morning of July 31st, bringing record-tying rain to both Bakersfield and Fresno. After the thunderstorms moved out of the San Joaquin Valley, skies began to clear and temperatures warmed rapidly. With the cloud cover, the temperature at Fresno was between 70-72 degrees for most of the morning of the 31st. But once the clouds began to clear, the temperature warmed at a rate of 8 degrees per hour from 11 AM to 1 PM (reaching 88 degrees), and topped out at 97 degrees at 5 PM.

Both Bakersfield and Fresno were 0.6 degrees warmer than normal for July. However, July was the last month to use the 1971-2000 30-year climatological normals. The new normals, for 1981-2010, were implemented of August 1st. The new average temperature for July is slightly warmer than the 1971-2000 average. Using the new normals, July 2011 was slightly cooler than normal, with Bakersfield down 0.1 degree, and Fresno down 1.0 degree. Both Bakersfield and Fresno had 11 days with highs of 100 or above in July.

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