

Storm Data and Unusual Weather Phenomena - July 2018

| Location | Date/Time | Deaths & Injuries | Property & Crop Dmg | Event Type and Details |
|----------|-----------|-------------------|---------------------|------------------------|
|----------|-----------|-------------------|---------------------|------------------------|

CALIFORNIA, South Central

(CA-Z098) INDIAN WELLS VLY, (CA-Z099) SE KERN CTY DESERT

| | | |
|--------------------|---|----------------|
| 07/06/18 10:00 PST | 0 | Excessive Heat |
| 07/08/18 20:00 PST | 0 | |

A large area of high pressure built into central California from the east on July 6 and brought a hot and dry airmass to the region which persisted through July 8. This produced a period of excessive heat across the Kern County deserts. The high weakened on July 9 resulting in a slight moderation of daytime temperatures in the desert areas.

(CA-Z093) S SIERRA FOOTHILLS, (CA-Z096) S SIERRA MTNS

| | | | |
|--------------------|----|---|----------|
| 07/13/18 20:36 PST | 4 | 0 | Wildfire |
| 07/31/18 23:59 PST | 18 | 0 | |

Direct Fatalities: M33UT, M36OU

The Ferguson Fire started on July 13, 2018 at 2136 PDT in the South Fork Merced River drainage, 10 miles north of Mariposa, CA in Sierra National Forest. The cause of the fire is under investigation. The fire started in an area that has steep, rugged terrain with scarcely any road access and a heavy presence of beetle-killed trees. On the morning of July 14, a heavy equipment operator was killed in a bulldozer rollover accident. The fire grew rapidly under hot and dry weather conditions. Strong inversions each day resulted in smoke issues in the fire area that limited aircraft operations. Smoke impacts from the fire spread throughout Yosemite National Park, the Sierra Nevada and foothill and into the San Joaquin Valley. Highway 140 leading into Yosemite National Park was closed on July 14 and remained closed through the end of July and into August. Smoke impacts in Yosemite resulted in dangerous air quality causing Yosemite Valley and most of the eastern part of the park to be closed to visitors on July 25. This closure continued into early August. Highway 41 leading into Yosemite from the south was also closed. Several communities just outside of Yosemite, including El Portal, Foresta, and the park employee housing at Rancheria Flat were subject to evacuations. From July 24 to 31, additional evacuations and repopulations of other areas continued to occur. On July 29, another tragic accident occurred when a tree fell, hitting and killing a firefighter. This fire continued to burn actively into August. By July 31, it had burned 57,041 acres and cost \$64.3 Million.

TUOLUMNE COUNTY --- TUOLUMNE MEADOWS [37.87, -119.77]

| | | |
|--------------------|---|-----------------------------|
| 07/20/18 17:00 PST | 0 | Heavy Rain |
| 07/20/18 18:00 PST | 0 | Source: Park/Forest Service |

Tuolumne Meadows received 0.98 inches of rainfall was measured in a one hour period.

TUOLUMNE COUNTY --- 3.6 NNE ASPEN VLY [37.87, -119.35], 3.5 NNW ASPEN VLY [37.87, -119.38], 4.2 N ASPEN VLY [37.88, -119.38], 4.3 NNE ASPEN VLY [37.88, -119.35]

| | | |
|--------------------|---|---------------------------------|
| 07/20/18 17:17 PST | 0 | Flash Flood (due to Heavy Rain) |
| 07/20/18 18:17 PST | 0 | Source: Park/Forest Service |

Overflowing water from a strong thunderstorm which produced heavy rain closed down a section of State Route 120 near Tuolumne Meadows. The duration of the flash flood was around one hour.

A southerly flow aloft brought some high level moisture into Central California on July 20. The moisture was sufficient enough for thunderstorms to develop over the higher elevations of the southern Sierra Nevada in the afternoon as the airmass became unstable with daytime heating. A few of the thunderstorms produced locally heavy rainfall over Yosemite National Park.

FRESNO COUNTY --- 1.5 NNW CEDAR GROVE [36.80, -118.68], 2.1 NW CEDAR GROVE [36.80, -118.70], 1.9 NW CEDAR GROVE [36.80, -118.70], 0.9 NW CEDAR GROVE [36.79, -118.68], 0.3 NE CEDAR GROVE [36.78, -118.67], 0.9 NE CEDAR GROVE [36.79, -118.66]

| | | |
|--------------------|---|---------------------------------|
| 07/21/18 15:05 PST | 0 | Flash Flood (due to Heavy Rain) |
| 07/21/18 16:35 PST | 0 | Source: Law Enforcement |

California Highway Patrol reported water and debris across Kings Canyon Road in several places between Lewis and Hotel Creeks in Cedar Grove.

A surge of upper level moisture combined with enough lift and instability during the afternoon of July 21 for widespread thunderstorm development to take place over the higher elevations of the southern Sierra Nevada. Brief heavy rainfall was observed with several of the thunderstorms and one storm produced flash flooding near Cedar Grove in Kings Canyon National Park.

(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

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| Location | Date/Time | Deaths & Injuries | Property & Crop Dmg | Event Type and Details |
|--|--------------------|-------------------|---------------------|------------------------|
| | 07/24/18 10:00 PST | | 0 | Heat |
| | 07/28/18 20:00 PST | | 0 | |
| <hr/> | | | | |
| (CA-Z098) INDIAN WELLS VLY, (CA-Z099) SE KERN CTY DESERT | | | | |
| | 07/24/18 10:00 PST | | 0 | Excessive Heat |
| | 07/28/18 20:00 PST | | 0 | |

A large area of high pressure strengthened over the region on July 17 resulting a long stretch of days with 100 degree and warmer days across the San Joaquin Valley and the Kern County Deserts. The high strengthened over California on July 24. This resulted in several days of excessive heat over the Kern County Deserts where and Excessive Heat Warning was issued for a five day period, and a significant heat wave persisted across the San Joaquin Valley where emergency cooling centers were opened each afternoon in several municipalities between July 24 and July 28. Heat Advisories were posted for the San Joaquin Valley as well as for the lower elevations of the southern Sierra foothills and Kern County Mountains during this period. The high finally weakened on July 29 and 30 which allowed for temperatures to finally cool down closer to normal levels. The month turned out to be the warmest July on record for Fresno and the second warmest on record for Bakersfield.