MAY 2018 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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This month began relatively cool, similar to the last week of April, Areas of precipitation, including rain and high elevation snow showers over the mountain areas, prevailed for the first two days of this month. Very little measurable rain fell on the floor of the San Joaquin Valley on the 1st and 2nd; however, some isolated thunderstorms developed over the Kern County desert areas during the afternoon of the 1st. Some heavier rain showers also developed in the Sierra Nevada and foothills below 6,000 feet. Mariposa and nearby locations reported around 1.00 to 1.50 inches in about an hour and some pea-sized to dime-sized hail. Even a few locations in the Kern County desert reported brief heavy rainfall. North Edwards AFB reported about 0.40 inch in about an hour, and a few spots along Highway 14 and crossroads that connect to U.S. Highway 395 experienced nuisance roadway ponding and flooding, especially in the lower-lying areas. Some showers even fell in Ridgecrest, although rain amounts were just below a quarter of an inch.

High pressure built over Central California by the 3rd, and temperatures remained relatively warm over the next few days. Temperatures reached several degrees above average by the 4th and continued until the 9th. Highs reached into the 90s (degrees Fahrenheit) in the warmest locations in the San Joaquin Valley. As for the Kern County desert areas, most locations reached into the 90s; however, China Lake NWTC even reached to 100 degrees for the first time this year on the 8th and 101 degrees on the 9th.

On the 10th through the 14th, temperatures lowered to around seasonal averages due to an upper-level low pressure system that passed over northern California into northern Nevada. This low produced mainly gusty winds to the usual prone areas in the Kern County mountains and desert, as well as along the west side of the San Joaquin Valley. Otherwise, scattered showers and isolated thunderstorms developed over the Sierra during the afternoon and into the evening hours each day. Periods of gusty winds occurred during the 10th through the 12th in the prone areas below the passes in eastern Kern County, as well as along the west side of the San Joaquin Valley. Winds gusted above 60 mph in a few locations in the Kern County mountain areas, such as Jawbone Canyon and Indian Wells Canyon during the afternoon and evening hours of the 11th, and this was the period of the strongest gusts. Gusts reached as high as 44 mph below the passes along the west side, such as Sunflower Valley along Highway 41 below Cottonwood Pass in far northwestern Kern County and into nearby southwestern Kings County during the morning of the 12th, and similar gusts occurred during the previous evening. By the 13th, the low pressure

system that remained over northern Nevada weakened slightly so that wind speeds lowered to around 30 to 40 mph at the strongest, but seasonal temperatures continued. On the afternoon and evening of the 14th, quite a few showers with isolated thunderstorms developed over the Sierra Nevada. In the areas that measured precipitation, amounts on this day ranged from around 0.25 to 0.50 inch. On the 15th, there were much fewer showers and thunderstorms and remained confined to the high country along the crest. Elsewhere, temperatures were around average for mid-May, although there were brief periods of slightly cooler than average daytime highs due to occasional marine air intrusions further inland that produced breezy conditions at times, including in the Central Valley

For the following several days, shower and thunderstorm coverage over the Sierra Nevada continued to remain over the crest. However, a slight uptick in activity occurred by the 20th through the 22nd, as an upper-level disturbance moved into the Great Basin. Rainfall amounts remained relatively light during this period. Otherwise, the weather remained relatively quiet with seasonably warm temperatures until the 23rd.

More showers and thunderstorms developed over the Sierra ahead of a fairly cold low pressure system that arrived by the evening of the 24th. This system was strong enough for isolated thunderstorms to develop even over the San Joaquin Valley, mainly north of Fresno and towards Merced during the night of the 24th and early morning hours of the 25th, as the low approached the Central California coast near Monterey Bay. Rainfall amounts remained less than a quarter inch, including where the thunderstorms developed (due to relatively fast storm motion). Much cooler than average temperatures and mostly cloudy skies prevailed on this day, while the low tracked further inland on the 25th and the following day. Daytime highs reached around 15 to 20 degrees below average on the 25th, or only into the upper-60s to the mid-70s in the San Joaquin Valley and mainly in the 70s in the Kern County desert areas.

The low pressure system tracked eastward into the Great Basin by the 26th. On the 26th and into the next few days, temperatures warmed by several degrees each day. However, relatively cool northerly flow behind the low pressure system continued over Central California, and low cloud cover persisted over the mountains and foothills during the much of the day on the 26th so that shower and thunderstorm development was suppressed over the high country of the Sierra Nevada. On the 27th, the upper-level low remained over the Great Basin, but weak disturbances continued to rotate around the system over the Sierra Nevada. These disturbances provided enough instability for isolated thunderstorms to return to the Sierra Nevada high country. Temperatures returned to above average on the 28th (just in time to end the Memorial Day holiday weekend) as high pressure strengthened over the area. First wide spread triple digit heat of the season occurred on the 29th as the ridge axis moved over central California. Slight cooling was realized on the 30th as a trough moved closer to the region. When on the 31st below normal temperatures for Fresno and Bakersfield and the surrounding areas due to a push of marine air

ushered into the San Joaquin Valley as the trough moved through the area. Temperatures were close to 10 degrees below normal for many locations.

Table 1 – May 2018 Summary Statistics for ASOS locations

Location	Monthly Average Temp (deg F)	Departure From Average (deg F)	Total Monthly Precipitation (inches)	Departure From Normal (inches)
Bakersfield	72.3	1.8	0.02	-0.16
Fresno	70.9	0.8	Trace	-0.43
Hanford	70.3	1.6	0.00	-0.42
Madera	68.1	0.8	Trace	-0.48
Merced	67.3	0.4	0.15	-0.43

Temperature/Precipitation Rankings for May

Bakersfield – 31st warmest May on record; 35th driest May on record (tied with multiple Mays).
Fresno – 26th warmest May on record (tied with multiple Mays); 13th driest May on record (tied with multiple Mays).

Figure 1 – Departure from Average Temperature for May 2018

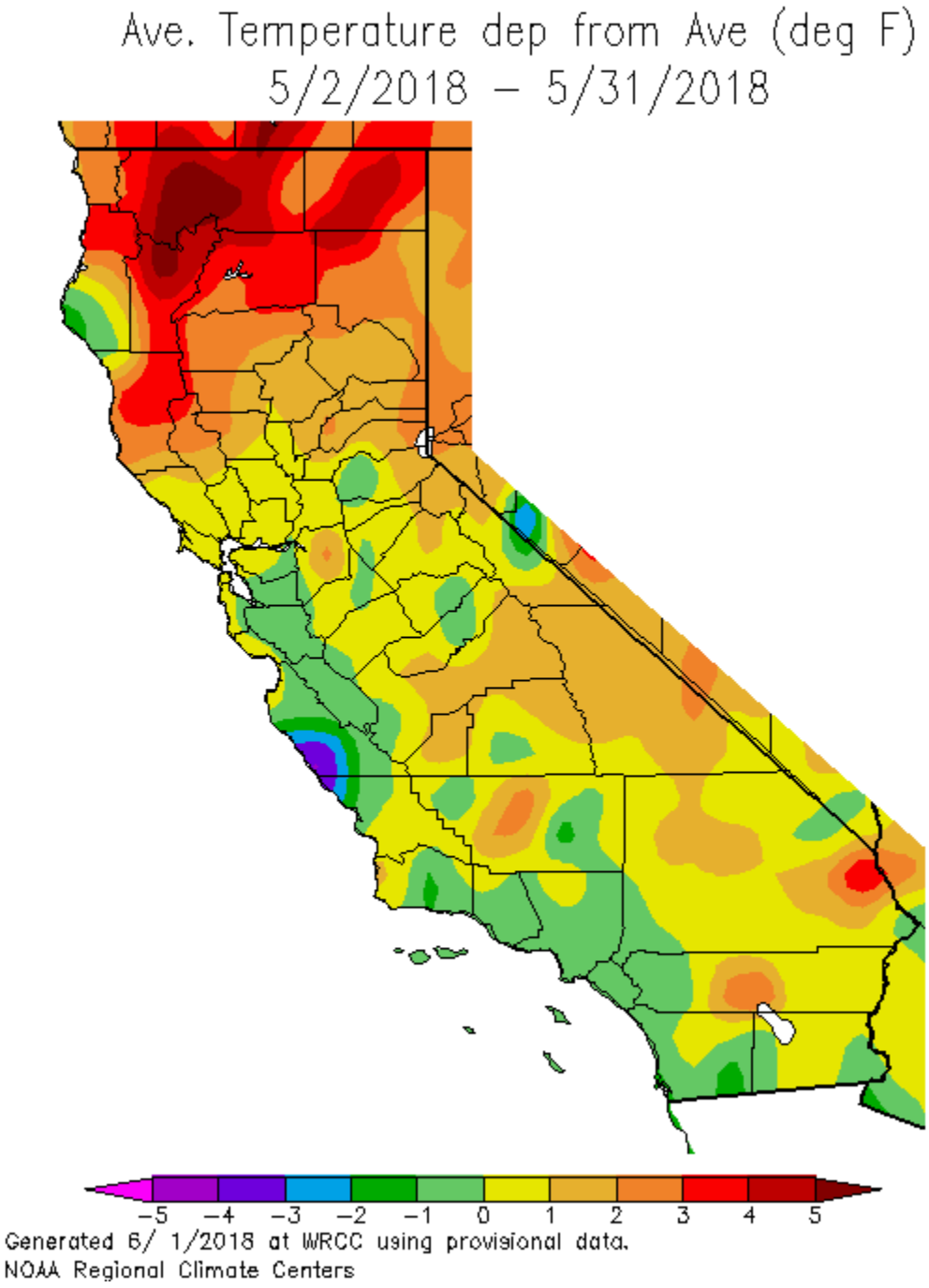
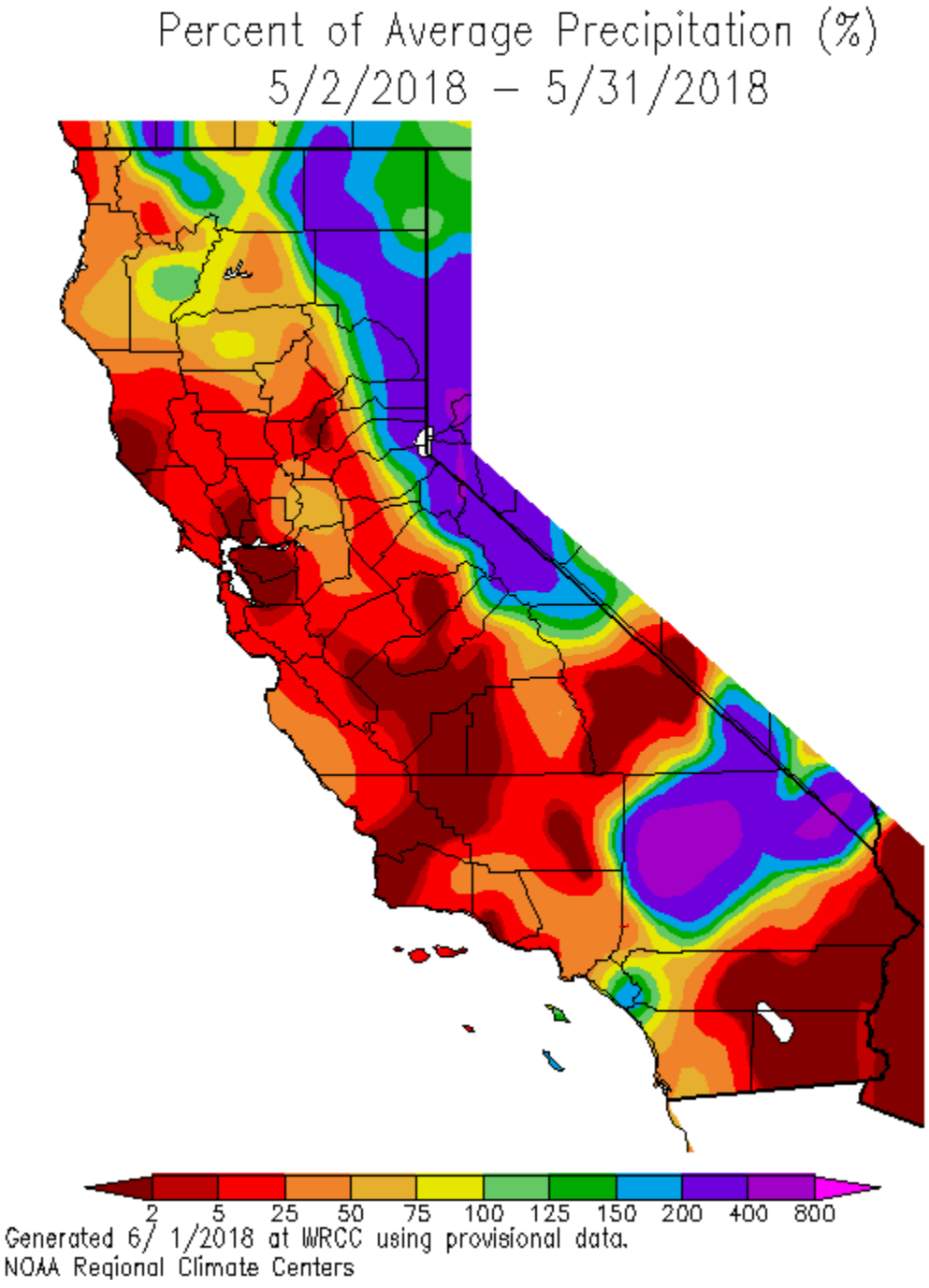


Figure 2 – Percent of Average Precipitation for May 2018



*Images above (i.e., Figures 1-2) courtesy of Western Region Climate Center