JANUARY 2019 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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The year 2019 began with relatively cool and dry weather as weak high pressure continued over Central California. A few locations in the San Joaquin Valley reported patchy fog during the nights and mornings from the 1st until the 4th; however, morning lows were around freezing or just below. Daytime highs reached around average or slightly above during this period.

The first storm of the year arrived on the 5th and brought several inches of snow above 5,000 feet in the Sierra Nevada, as well as 0.25 to 0.50 inch in parts of the San Joaquin Valley and the adjacent foothills of the Sierra Nevada during the afternoon and evening hours. Snow amounts were around an inch per hour or more in the Sierra Nevada, including at the 5,000 foot elevation level from Yosemite National Park to Kern County. The snow caused traffic delays and collisions due to a very busy weekend with skiers and those enjoying the snow, especially with thousands of motorists that headed down the mountains into the Central Valley while the snow was falling. In addition, gusty southerly winds occurred below the mountain passes and above the ridges of the mountains in Kern County. Gusts around 40 to 50 mph were reported during the afternoon into the evening hours.

Additional storms brought precipitation for the next several days. On the morning of the 6th, the region was between storm systems. A few locations in the southern San Joaquin Valley, particularly in Tulare in Kern Counties, reported dense fog that morning. The next system arrived by the following afternoon and brought even more precipitation with strong, gusty winds to parts of the San Joaquin Valley, as well as the Kern County mountain and desert areas. In terms of winds, gusts reached over 60 mph in the Indian Wells Valley, including in Ridgecrest and Inyokern on the evening of the 6th. In addition, gusts reached around 45 to 60 mph near Merced and along the west side of the San Joaquin Valley; otherwise, gusts reached around 30-40 mph in quite a few other locations in the valley. The gusts were strong enough to cause power outages in Fresno, Madera, and Merced. In the Kern County mountain areas, a few locations reported wind gusts in excess of 75 mph and reached up to around 90 mph. Precipitation amounts from this storm ranged from around a tenth of an inch to over one inch in the San Joaquin Valley; the highest amounts were reported in Merced County. Over an inch of rain fell in much of the Sierra Nevada, mainly below 4,500 feet, from Mariposa to Tulare Counties. Most locations in Kern County reported around 0.10 to 0.60 inch. Snow amounts reached several inches to around a foot in the Sierra Nevada, mainly above 4,500 feet. The next system arrived on the night of the 8th/morning of the 9th, although relatively light precipitation occurred. The

weather was tranquil for a few days thereafter, except dense fog formed in the San Joaquin Valley during the nights and mornings of the 10th-11th.

Active weather returned during the 14th through the 17th, and the heaviest precipitation occurred on the night of the 16th into the morning hours of the 17th. The four-day storm total (i.e., the 14th-17th) was around 7-8 inches in quite a few locations in the Sierra Nevada, especially from Fresno County and locations to the north, including Yosemite National Park. Snow amounts were around 3-4 feet in the higher elevations, or above 7,000 feet. Gusty winds were reported at times, especially along the west side of the San Joaquin Valley and in the Kern County mountains and desert. Gusts reached as high as 70-80 miles per hour in the mountains and desert of Kern County, while gusts were 45-55 mph through the west side hills and into the western portions of the San Joaquin Valley from Merced to Kern Counties, as well as the Sierra Nevada foothills from Mariposa to Fresno Counties. On the morning of the 15th, the airmass was cold enough to support snow at elevations around 4,000 feet in Kern County, and snow accumulation was sufficient to close down Interstate 5 near Lebec and up to the Tejon Pass. Towards the end of this four day event, or on the 17th, a tornado briefly touched down a few miles northeast of Clovis during the afternoon. The tornado was rated as an EF1 (Enhanced Fujita Scale) with winds estimated around 86-111 miles per hour based on the damage reports. Some structures that included a barn and some outside buildings on private property sustained extensive damage on the roofs and supporting beams.

Yet another storm system arrived on the 20th and brought precipitation to much of the region. The heaviest amounts were reported in the Sierra Nevada and foothills, especially around Yosemite. Rainfall amounts in 24 hours exceeded two inches in quite a few locations. Otherwise, rainfall amounts were around 0.10 to 0.50 inch in the San Joaquin Valley from Fresno County and northward and down to around a trace up to a 0.10 inch south of Fresno County. Snow fell mainly above 5,000 feet, although snow levels fell to around 4,000 feet towards the end of the event on the morning of the 20th. Near average temperatures prevailed afterward for the next several days, although patchy dense fog caused travel issues during the mornings until near the end of the month. High pressure strengthened during the 25th through the 30th, and daytime highs reached around 10 degrees above average.

For the last day of the month, a low pressure system brought precipitation to mainly the lower elevations, as the system moved parallel to the coast before moving inland over southern California. Rainfall amounts were around 0.10 to 0.50 inch in the San Joaquin Valley and the mountains and desert areas of Kern County, except for locally heavier amounts in western Kern County and southwestern Kings County. Precipitation was around average in much of our forecast area, including the Sierra Nevada, foothills, the San Joaquin Valley, and even into the Kern County desert areas for this month.

Overall, the month was near to above average in terms of temperatures (Fig 1). Near average to above average precipitation accumulated this month; the highest precipitation anomalies were in the Kern County desert (Fig 2).

Table 1 – January 2019 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	53.4	+5.6	1.38	+0.22
Fresno	52.5	+5.9	2.23	+0.04
Hanford	50.2	+4.8	1.79	-0.25
Madera	53.3	+7.7	1.77	-0.68
Merced	49.5	+4.5	2.34	-0.27

Table 2 – Seasonal Precipitation for ASOS locations (ending on January 31st)

Location	Since Jan 1st (inches)	Departure From Average (inches)	Since Jul 1st (inches)	Departure From Average (inches)	Since Oct 1st (inches)	Departure From Normal (inches)
Bakersfield	1.38	+0.22	2.68	-0.56	2.68	-0.44
Fresno	2.23	+0.04	4.56	-1.29	4.56	-1.10
Hanford	1.79	-0.25	3.66	-1.72	3.66	-1.51
Madera	1.77	-0.68	4.76	-1.71	4.76	-1.42
Merced	2.34	-0.27	6.21	-0.22	6.21	+0.09

Table 3 – Warmest High Temperatures and Coolest Low Temperatures of the Month for ASOS locations				
Location	**High**	**Date(s)**	**Low**	**Date(s)**
Bakersfield	72	30th	31	1st, 2nd
Fresno	67	30th	33	1st, 2nd, 3rd
Hanford	67	30th	26	1st
Madera	69	30th	31	1st, 2nd, 3rd
Merced	65	19th, 27th, 30th	25	3rd

Temperature/Precipitation Rankings for January

Bakersfield – 6th warmest January on record; 34th wettest January on record.
Fresno – 3rd warmest January on record; 42nd wettest January on record.

Daily Records Set During January 2019

Bakersfield – No daily records set.
Fresno – No daily records set.

Figure 1 – Departure from Average Temperature for January 2019

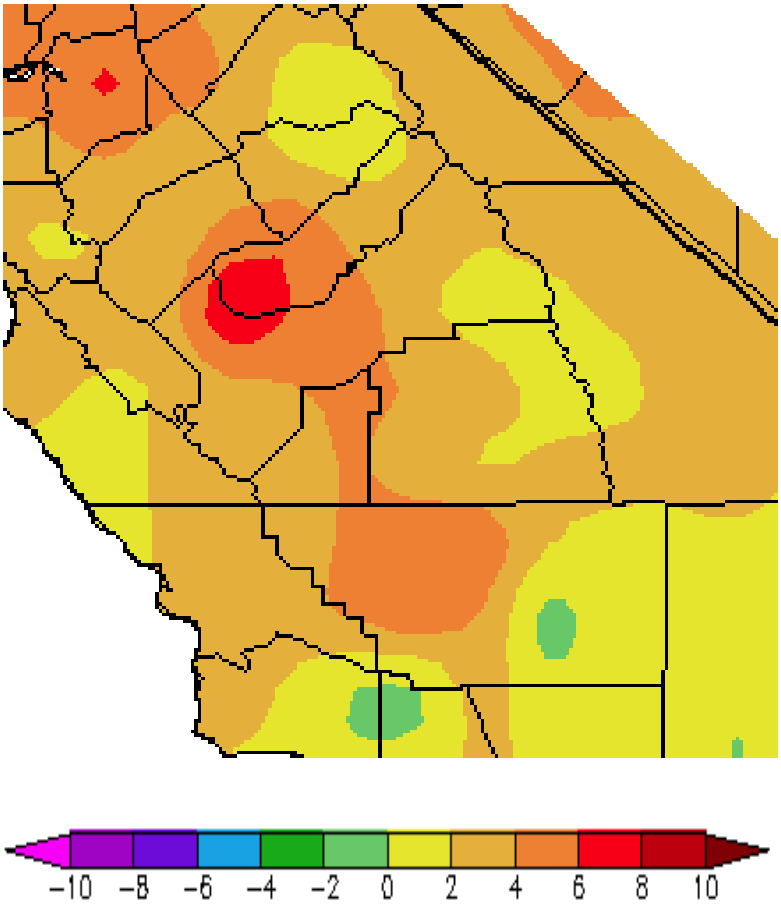
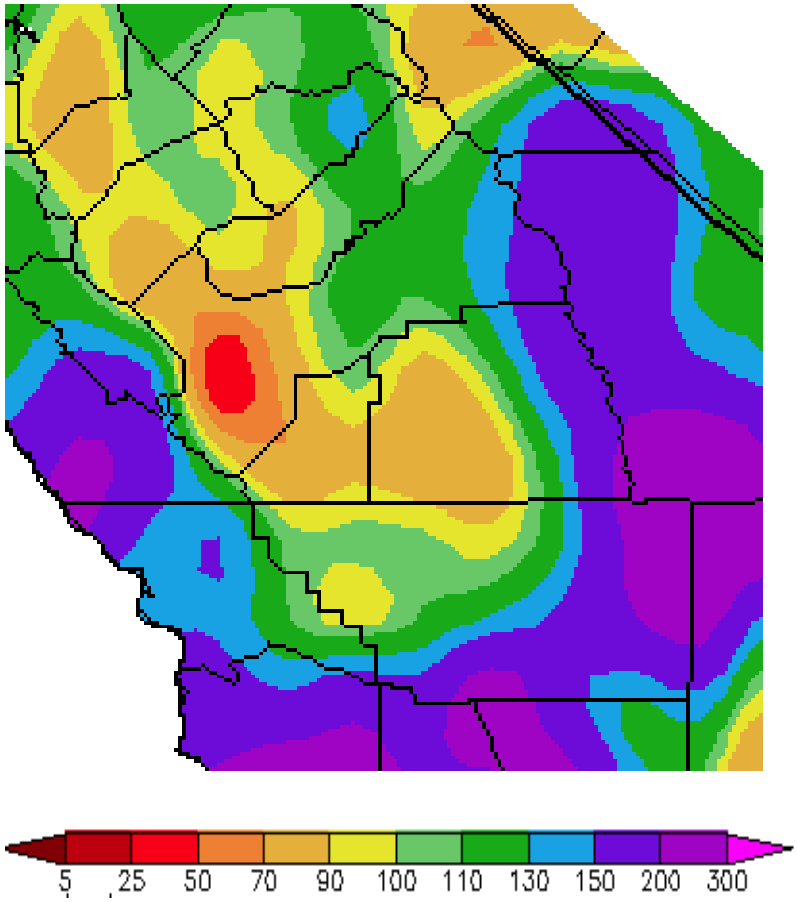


Figure 2 – Percent of Average Precipitation for January 2019



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