OCTOBER 2022 WEATHER SUMMARY FOR THE CENTRAL CALIFORNIA INTERIOR

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Much warmer than average temperatures prevailed throughout the first three weeks of the month which led to an overall above average October. Some showers and thunderstorms occurred over the mountains at times during the second week of the month due to a persistent cutoff low pressure system off the coast of Southern California. A few showers developed in the Sierra Nevada on the 22nd, due to a cooler low pressure system that tracked over the Pacific Northwest into the Great Basin. Otherwise, very strong and gusty winds accompanied the low pressure system; this was the beginning of much cooler regime that lasted until the end of the month. Gusty winds also developed on the 25th due to another low pressure system that brought a reinforcement of cooler air before being lighter until the end of the month.

Table 1 – October 2022 Summary Statistics– NWS Hanford, CA ASOS Sites							
Location	Monthly Average Temp (deg F)	Departure from Average (deg F)	Temperature Rank	Total Monthly Precipit ation (inches)	Departure from Normal (inches)	Precipitation Rank	
Bakersfield	71.6	+3.9	7 th Highest	0.00	-0.28	Tied for Lowest	
Fresno	71.0	+4.3	5 th Highest	0.00	-0.56	Tied for Lowest	
Hanford	68.1	+3.5	Tied for 7 th Highest	0.00	-0.46	Tied for Lowest	
Madera	67.0	+2.0	15 th Highest	0.00	-0.44	Tied for Lowest	
Merced	67.5	+3.2	8 th Highest	0.00	-0.64	Tied for Lowest	

Note: Freezing minimum temperatures and triple digit high temperatures are rare in October for the above locations. Triple digit heat and freezing temperatures did/did not occur this month.

A ridge of high pressure started over the coast of California and helped keep temperatures above average to start the month of October. Temperatures lowered towards seasonal averages on the 2nd and 3rd; however, dry conditions prevailed. The ridge of high pressure regenerated over the Golden State and allowed temperatures to warm back to several degrees above average by the 5th. Further warming occurred on the 6th and 7th, and high temperatures were as much as ten

degrees above seasonal averages while high temperatures peaked above 95 degrees in some of the warmest locations.

The warm weather continued on the 8th until the 15th. Highs remained in the 80's to near 90 degrees at the warmest locations in the Central Valley and Kern County desert. A cutoff low pressure system prevailed along the coast of Southern California and Northern Baja California during much of the period of the 9th-15th, so little change in temperatures and weather occurred north of Kern County. Except, periods of showers and thunderstorms occurred in the mountains and desert. The most active period, at least for our forecast area, was on the 9th and 10th when showers and thunderstorms developed over the Kern County desert and mountain areas, as well as throughout the Sierra Nevada. Some of the stronger storms were slow moving and produced heavy rain on the afternoons of the 9th and 10th, although no reports of flash flooding and debris flows were received. However, there were some places where ponding of rainwater occurred on the roadways. Rainfall amounts were generally around 0.10 to 0.25 inch on each day, except for some amounts over 0.50 inch, which occurred in a relatively short time, or about an hour. Shower and thunderstorm activity began to decrease on the 11th and 12th, although there were a few showers and isolated thunderstorms in the Kern County mountains, including near Tehachapi and the Grapevine. In addition, some light showers or sprinkles occurred in the southern San Joaquin Valley, including in Bakersfield, on the 12th. After a couple of days with no precipitation recorded, there was an isolated shower in the Tehachapi Mountains on the 15th.

For the 16th and the 17th, temperatures were near seasonal averages, though a warming trend began on the 17th. By the 18th, highs were once again several degrees above normal, as the warmest spots reached into the mid-80's in the Central Valley to near 90 degrees in portions of the Kern County desert, including around Ridgecrest.

On the 19th through the 21st, the warming trend continued with highs reaching near 90 degrees at the warmest locations, including in the San Joaquin Valley. Highs were around ten degrees above seasonal averages during this period. Dry conditions prevailed during this period with generally light winds, except for an occasional breeze through the passes along the west side of the San Joaquin Valley.

A change in the pattern began on the 22nd, with much cooler temperatures due to an upper-level trough of low pressure and associated cold front. Some gusty winds developed early in the morning in the Sierra Nevada, with speeds over the ridge tops and below the passes reaching over 50 mph. By the afternoon, these ridge tops reported gusts over 75 mph. In addition, gusts of 45 to 60 mph occurred in the Kern County desert. A gust to 60 mph was reported at China Lake NWTC, while gusts at Edwards AFB peaked near 50 mph. A few snow showers developed over the higher elevations of the Sierra Nevada, though accumulation amounts were mainly a dusting up to around one inch. Near average temperatures generally occurred on this day, and further

cooling was reported on the 23rd. High temperatures were finally around 5 to 10 degrees below average across the region on the 23rd, which has not occurred since the previous month. Highs were mainly in the upper 60's to lower 70's in the warmest spots.

On the 24th and the 25th, a slight warming trend began, although highs remained close to seasonal averages. Chilly overnight lows were prevalent throughout the region as winds became much lighter. Portions of the San Joaquin Valley dropped below 40 degrees, though mainly into the upper 30's at the coldest spots. By the 26th, another low pressure system arrived and brought another round of gusty winds to the typical prone areas in eastern Kern County and the ridge tops of the southern Sierra Nevada, including gusts over 50 mph for the afternoon and evening hours.

The 27th brought warmer daytime temperatures to around average with winds being less intense. However, portions of the San Joaquin Valley were below 40 degrees and into the upper 30s on the 27th. The 28th through 31st had almost steady temperatures with a 2 to 3 degree variance around the climatological norm. The month ended with no rain accumulated but with seasonable temperatures after starting off with high 80s and low to mid 90s.

Table 2 – Seasonal Precipitation for ASOS locations (ending on October 31 st)							
Location	Since Jan 1 st (inches)	Departure From Average (inches)	Since Jul 1 st (inches)	Departure From Average (inches)	Since Oct 1 st (inches)	Departure From Normal (inches)	
Bakersfield	1.86	-2.89	0.00	-0.33	0.00	-0.28	
Fresno	1.19	-7.14	0.11	-0.53	0.00	-0.56	
Hanford	1.78	-4.37	0.04	-0.48	0.00	-0.46	
Madera*	Missing	Missing	0.54	+0.06	0.00	-0.44	
Merced	1.85	-7.02	0.20	-0.49	0.00	-0.64	

*Missing precipitation at Madera in March 2022

Table 3 – Warmest High Temperatures and Coolest LowTemperatures of the Month for ASOS locations						
Location	High	Date(s)	Low	Date(s)		
Bakersfield	95	8 th	47	23 rd		
Fresno	95	7 th	46	27^{th}		
Hanford	96	6 th	37	24 th ,27 th		
Madera	95	6 th	38	27^{th}		
Merced	96	6 th	37	27^{th}		

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Daily Records Set During October 2022

Bakersfield – 11th: Record high minimum temperature of 70 degrees set, which broke the previous record of 67 degrees last set for the date in 2015.

Fresno – No daily records tied/set.

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Hanford – No daily records tied/set.

Madera – 20^{th} : Record high maximum temperature of 90 degrees set which broke the old record of 89 degrees set for the date in 1973.

Merced - No daily records tied/set.







