OCTOBER WEATHER SUMMARY

By Gary Sanger, Climate Services Focal Point WFO San Joaquin Valley – Hanford

The upper-level trough that reached California at the beginning of October brought a strong push of cold air to the region. On three of the first five days of the month, Bakersfield either broke or tied the record low maximum temperature for the date.

The trough also tapped into a fetch of subtropical moisture, bringing light showers to the region. Bakersfield recorded 0.11 inch on October 1st and 2nd, while Fresno only received a trace. As the trough moved east of the region, another system was on its heels, keeping cold and unsettled weather in place over the Central California Interior. 0.08 inch of rain fell at Fresno-Yosemite International Airport on the 5th, the only measurable rain to fall at Fresno for the entire month. The light precipitation that fell moistened the ground and lower atmosphere enough to produce the first dense fog event of the 2006-07 season, as visibilities at Fresno dropped to ½ mile during the morning of October 6th. The upper-level low associated with this trough tracked across southern California during the day, with the easterly flow over the Southern Sierra Nevada, with a few orographically-induced thunderstorms developing along the crest.

The trough that moved through the region on the 5th and 6th opened into a wave along a broad trough that stretched from its parent low over Hudson Bay southwest across North America into southern California. A secondary low that developed near San Diego in the base of the trough triggered upslope clouds over the Kern and Tulare County mountains on the 8th.

The next upper-level Pacific low approached the San Francisco coast on October 10th, then dropped south to off Point Conception the next day. Special Weather Statements were issued to alert people living in the Kern County mountains and deserts of possible thunderstorms and locally heavy rains s the low moved inland over southern California on the 13th and 14th.

Thunderstorms developed over the Coastal Range during the early morning of Friday, the 13th, and quickly spread east into the Southern San Joaquin Valley. Thunderstorms moved across the Bakersfield metro area by 2:30 AM, and bands of showers and thunderstorms continued to move across the region through the day. Bakersfield received 0.18 inch of rain from the thunderstorms on the 13th, nearly 2/3 of its total precipitation of October (0.30 inch), enabling Meadows Field to close the month only 0.01 inch shy of its normal October rainfall. The clouds and precipitation also kept Bakersfield unseasonably cool. The high at Meadows Field was only 68 degrees, breaking the record low maximum temperature by a degree. This was the fourth, and last, record low maximum temperature record for Bakersfield in October.

The upper-level low finally moved onshore near Los Angeles during the night of October 13th-14th. This shifted the focus for convection to the Kern and Tulare County mountains,

and also the Kern County deserts, where some road flooding occurred. An example of the intensity of the strongest thunderstorms can be seen by the rainfall at the Democrat RAWS, which recorded 0.96 inch of rain in only a few hours during the early hours of the 14th.

After a relatively quiet day, another upper-level trough dropped through California on October 16th. This trough brought gusty winds to the Kern County mountains and deserts, with wind gusts measured up to 48 mph in the Kern County mountains, and up to 46 mph in the deserts.

Behind the trough, a stable weather pattern developed over California. A series of weak short-waves brought some high clouds at times to the region, but skies remained mostly clear, allowing temperatures to warm a few degrees each day, culminating with the warmest day of the month for both Bakersfield and Fresno on the 21^{st} . Bakersfield topped out at 89 degrees, with Fresno hitting 86. Although a few towns in the central and southern San Joaquin Valley reached 90+ on the 21^{st} and 22^{nd} , neither Bakersfield nor Fresno ever did during the month.

The next upper-level low moved across central California on the 28^{th} - 29^{th} , bringing more cold air to the region. Fresno had its coldest morning on October 30^{th} , with a low of 42. Bakersfield's coldest low was 43 degrees, set twice, on October 26^{th} and 31^{st} .