A Busted Forecast!

PM2.5 levels took a bit hit from overnight winds.

More widespread low-level clouds than anticipated. NWS says, “Clouds continue to increase in the south valley as a jet max crosses the region.”
GOES Visible at 1600 (8:00 am)
GOES: IR at 1600 UTC (8 am) Today
GOES: Cloud Top Height at 1630 UTC (8:30 am) Today
Today: Upper trough moving through central CA interior today, producing rain on the north-facing slopes of the Tehachapi Pass. A jet max is also crossing the region today, producing clouds in the southern SJV.
Tomorrow (Thursday): A weak ridge crosses the region overnight and early Thursday morning. Cold front associated with the surface low off the Northwest coast should move into the region by Thursday night.
Fresno

Today: Sunny
(However, low clouds formed unexpectedly this morning.)
Thursday: Cloud cover ~50%

Today → Thursday →
Hanford

Today: Sunny
(Unexpected morning clouds)
Thursday: Cloud cover ~50%

Today → Thursday→
Bakersfield
Today: Cloud cover ~50%
(Low clouds remain over Bakersfield, expected)
Thursday: Cloud cover ~40%
Friday: The cold core low will move into central CA during Friday-Friday night. The upper trough will also begin to move onshore. The cold core will remain over the region Saturday, keeping cold air in central CA and breezy.
Fresno
Friday: Cloud cover ~50%, chance of precipitation
Saturday: Cloud cover ~45%
Hanford
Friday: Cloud cover ~85%, chance of precipitation
Saturday: Cloud cover ~40%
Bakersfield
Friday: Cloud cover ~90%, chance of precipitation
Saturday: Cloud cover ~50%
Fresno: BUFKIT NAM 12 UTC Wednesday Feb. 6th

Saturday  | Friday  | Thursday | Today

Clouds

PBL Height
Bakersfield : BUFKIT NAM 12 UTC Wednesday Feb. 6th

Saturday  |  Friday  |  Thursday  |  Today

Clouds

Scattered low clouds

PBL Height
San Nicolas: BUFKIT NAM 12 UTC Wednesday Feb. 6th

Today: Low clouds

- Saturday: Some low clouds
- Friday: Low clouds
- Thursday: Low clouds
Today
Some low clouds

Clouds
Tomorrow: NAM – Some stratus clouds offshore, decreasing throughout the day. Cirrus moving into LA coast as stratus decline; broken cirrus off of SF.

Integrated liquid and frozen hydrometeors (all levels)

27-hour forecast valid 1500 UTC Thu 07 Feb 2013

10-hour forecast valid 1800 UTC Thu 07 Feb 2013

33-hour forecast valid 2100 UTC Thu 07 Feb 2013

36-hour forecast valid 0000 UTC Fri 08 Feb 2013

7 am

10 am

1 pm

4 pm
Thursday: GEOS5 – Indicates more extensive stratus coverage than NAM. Cold front apparent. Cirrus begin to approach the southern study region by late afternoon.

7 am

GEOS5 – Low level

10 am

GEOS5 – Mid level

1 pm

GEOS5 – High level

4 pm
Tomorrow: Canadian – Stratus offshore decreasing by afternoon. Scattered cirrus off SF coast, with ceiling moving towards LA. GFS – Keeps stratus further west. Cirrus build into the study region by afternoon.
GFS - Low level

GFS - Mid level

GFS - High level
Friday: NAM – Stratus deck building into the study region from the south by afternoon. Some cirrus off of SF coast during morning, drying out by late morning.
Friday: GEOS5 – Stratus deck returns to coast after frontal passage. More extensive during morning than NAM, and decreases in coverage during day. No cirrus clouds.

7 am

GEOS5 – Low level

10 am

GEOS5 – Mid level

1 pm

GEOS5 – High level

4 pm
Friday: GFS – Similar to the NAM. Stratus build into the region by late afternoon. Cirrus not indicated in the study region.
Saturday: Stratus and cirrus remain clear of the SF and LA coasts throughout the day.
Saturday: GEOS5 – Similar to NAM. Coast remains cloud-free throughout the day.
AREA FORECAST DISCUSSION
NATIONAL WEATHER SERVICE SAN JOAQUIN VALLEY - HANFORD CA
319 AM PST WED FEB 6 2013

.SYNOPSIS...
A WEAK FRONTAL SYSTEM THAT MOVED THROUGH THE AREA IS PRODUCING
SOME LIGHT SHOWERS IN THE SOUTH VALLEY AND CLOUDS ALONG THE
SIERRA. THIS FRONT WILL MIX UP THE LOWER ATMOSPHERE ENOUGH TO
REDUCE THE THREAT OF WIDESPREAD FOG THIS MORNING IN THE SAN
JOAQUIN VALLEY. ANOTHER FRONT WILL MOVE THROUGH THE AREA ON
THURSDAY AND FRIDAY WHICH WILL PRODUCE LIGHT RAIN AND HIGHER
ELEVATION SNOW.

&

.DISCUSSION...
UPPER TROUGH MOVING THROUGH THE CEN CA INTERIOR HAS ENOUGH ENERGY
WITH IT TO DEVELOP UP SLOPE SHOWERS ACROSS THE NORTH FACING
SLOPES OF THE TEHACHAPI MOUNTAINS. CLOUDS CONTINUE TO INCREASE
IN THE SOUTH VALLEY AS A JET MAX CROSSES THE REGION. GUSTY WINDS
CONTINUE IN THE TEHACHAPI PASS AND WILL DIE OFF BY DAY BREAK. CLOUDS
AND WEAK SFC WINDS ARE ENOUGH TO LIMIT FOG DEVELOPMENT TODAY OVER
MOST AREAS IN THE SJV. HANFORD STILL HAS SOME FOG IN THE AREA...BUT
IT IS PRETTY ISOLATED.

VALLEY WINDS ARE EXPECTED TO DIE OFF TONIGHT AS THE TROUGH MOVES
EAST. WE MAY SEE MORE IN THE WAY OF FOG DEVELOPMENT TONIGHT WITH A
WEAK RIDGE BUILDING IN OVER THE AREA AHEAD OF THE NEXT SYSTEM
GETTING ORGANIZED IN THE GULF OF ALASKA. THIS SYSTEM IS PROGGED
TO MOVE IN HERE INITIALLY WITH A COLD FRONT ON THURSDAY NIGHT AND
THEN THE COLD CORE LOW CENTER WILL CROSS THE AREA FRIDAY AND
FRIDAY NIGHT. THE GFS AND ECM ARE NOT REAL SURE WHAT TO DO WITH
THE CLOSED LOW CENTER FOR SATURDAY. LOOKS LIKE WE WILL BE ON THE
COLD SIDE OF THE LOW CENTER AND IT MAY STILL BE BREEZY OVER THE
AREA. THE MODELS ARE BRINGING IN A COLDER AIRMASS IN HERE ON
SUNDAY AND MONDAY WITH TEMPERATURES NEAR FREEZING IN SEVERAL
LOCATIONS IN THE SJV. HIGH PRESSURE RIDGE WILL ALLOW TEMPS TO
MODIFY BY WED OF NEXT WEEK WITH CONTINUED DRY CONDITIONS.

&
NOAA CMAQ: Thursday 10 am = 18 Z

PODEX:
Recommendations—A complicated forecast!

**Thursday:** NAM and GFS indicate some clearing of low level clouds after frontal passage along coast. Cirrus building into the LA coastal waters. GEM and GEOS5 show more low cloud. NWS Oxnard disagrees. Broken cirrus forecasted to be present over stratus deck, which will cover most of the southern study region off LA. NWS Monterey forecasts cirrus clouds off SF coast until ~11am, with low and mid levels coming during late morning, ahead of the trough. Stratus covering most of study region by afternoon (except south of ~36N).

**Friday:** NAM and GFS indicate a clear patch of ocean, similar to prediction for today (Feb. 6). GEOS5 keeps low clouds into the coast for most of the day. NWS Oxnard indicates that clouds are possible at any and all levels on Friday due to the upper trough, but indicates lack of model convergence. NWS Monterey forecasts mainly clear waters, with exception of some cumulus at the coast or just inland (moisture concentrated over land).

Friday’s precip.: 40% chance of rain and snow, all day, wind gusts. Forecaster has increasing confidence in this forecast.