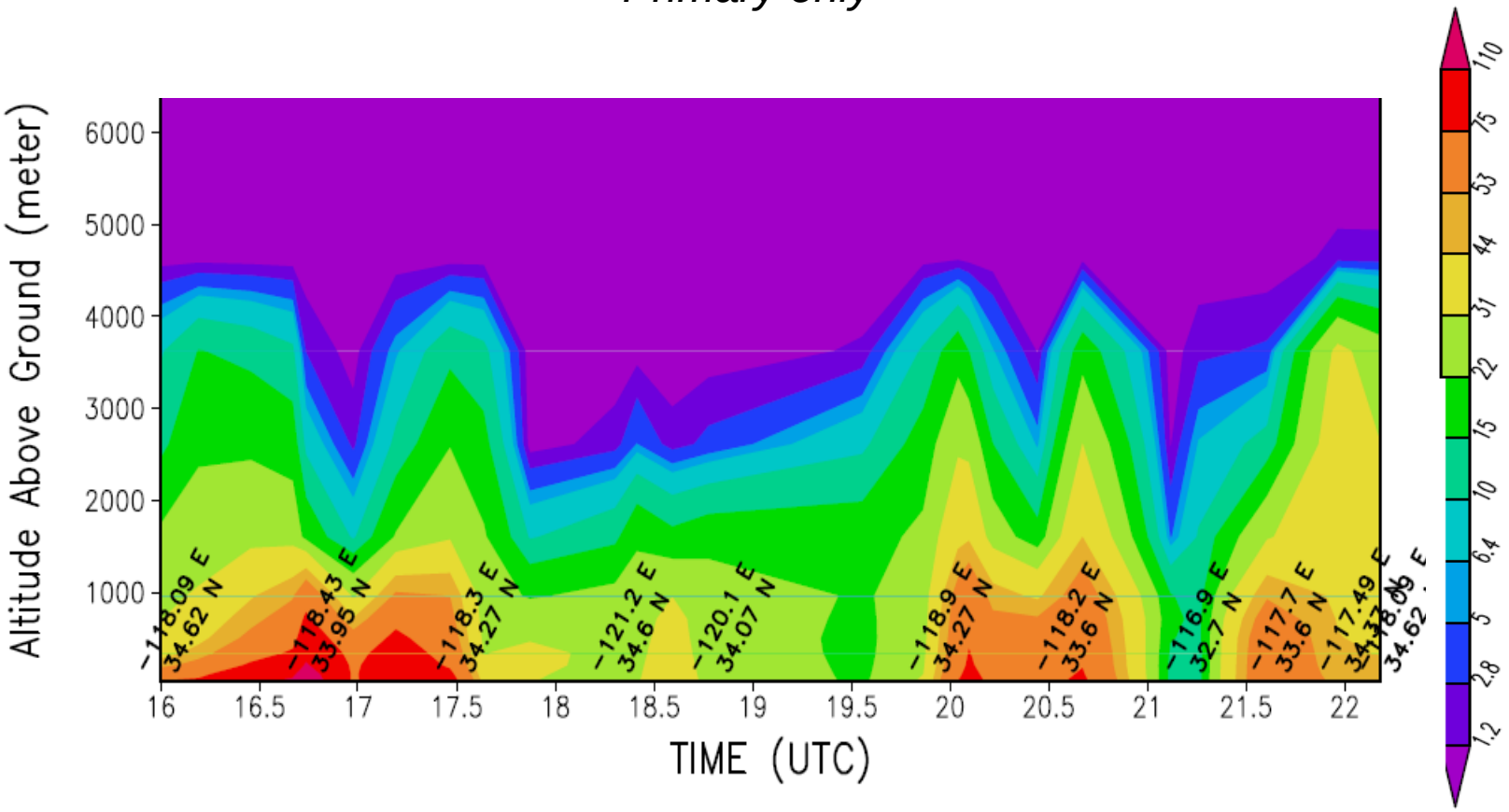
Proposed Flight Plan: SoCal-3 - 06/18/2008

Note:

1) Nominal altitude 300 m over land and 150 m over water, pop-up as needed
2) Two missed approach at LAX
3) Spiral at Point 3 from 10,000 ft to 1000 ft.
4) ER-2 coordination crisscross BL run at point 27 for 20 min.
5) Spiral at point 27/28 up to 20,000 ft or no detectable CH_4 vertical gradient .

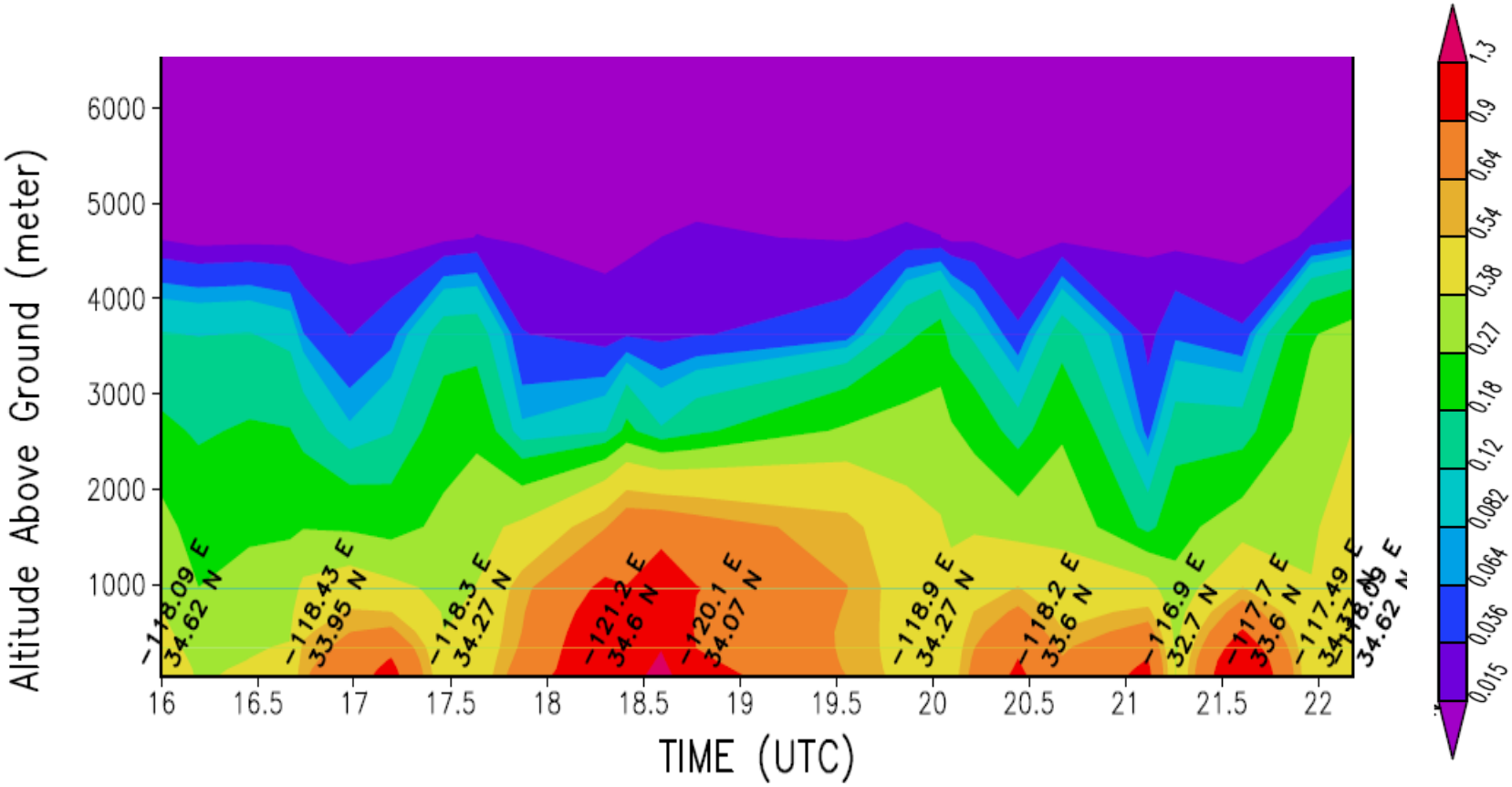
Simulated USA CO (ppbv) along
the DC8–SoCal Flight Path on 06/18/2008

Primary only



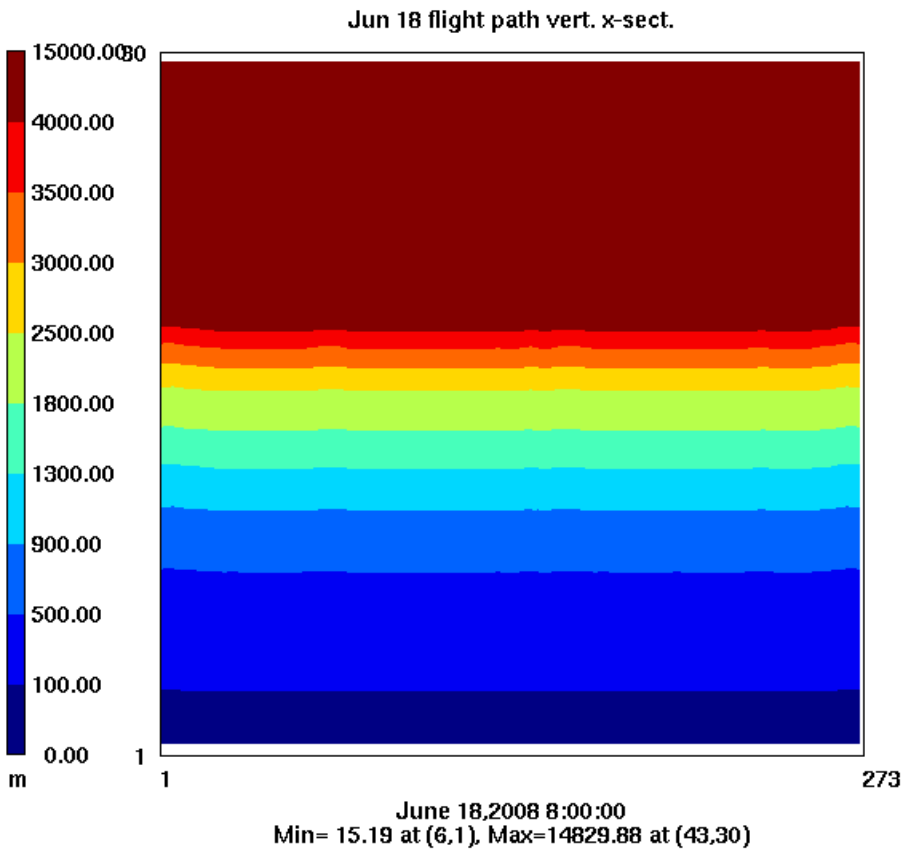
UIOWA - STEM

Simulated Total Sulfate ($\mu g/m^3$) along the DC8–SoCal Flight Path on 06/18/2008

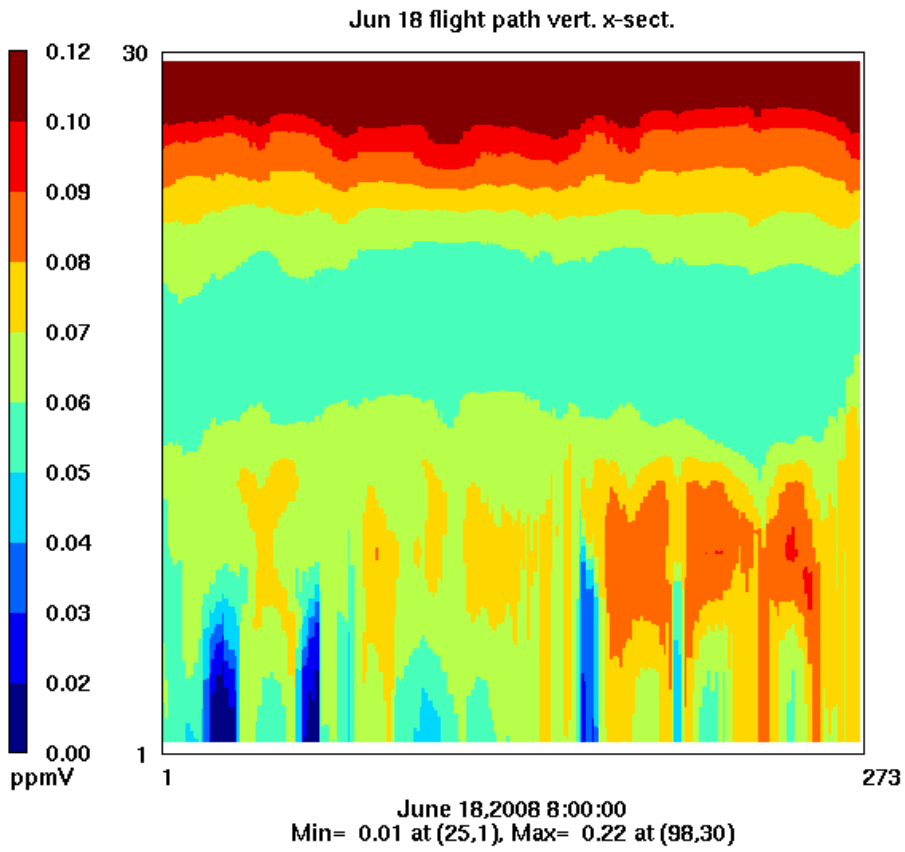


UIOWA - STEM

Height ABG



O3



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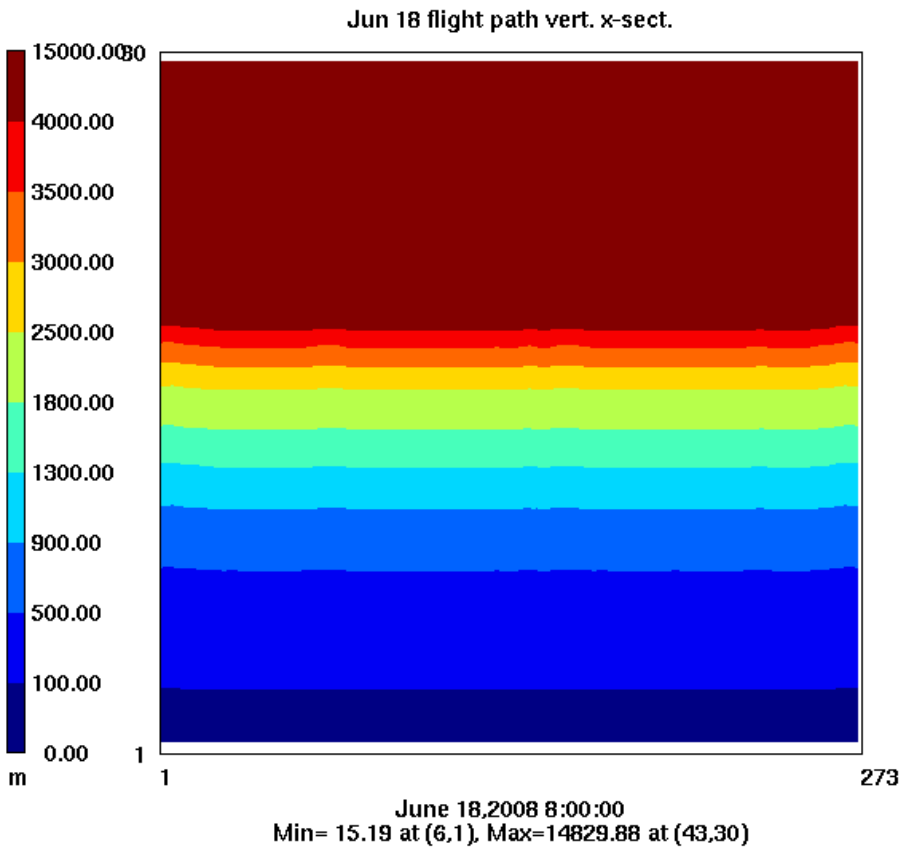
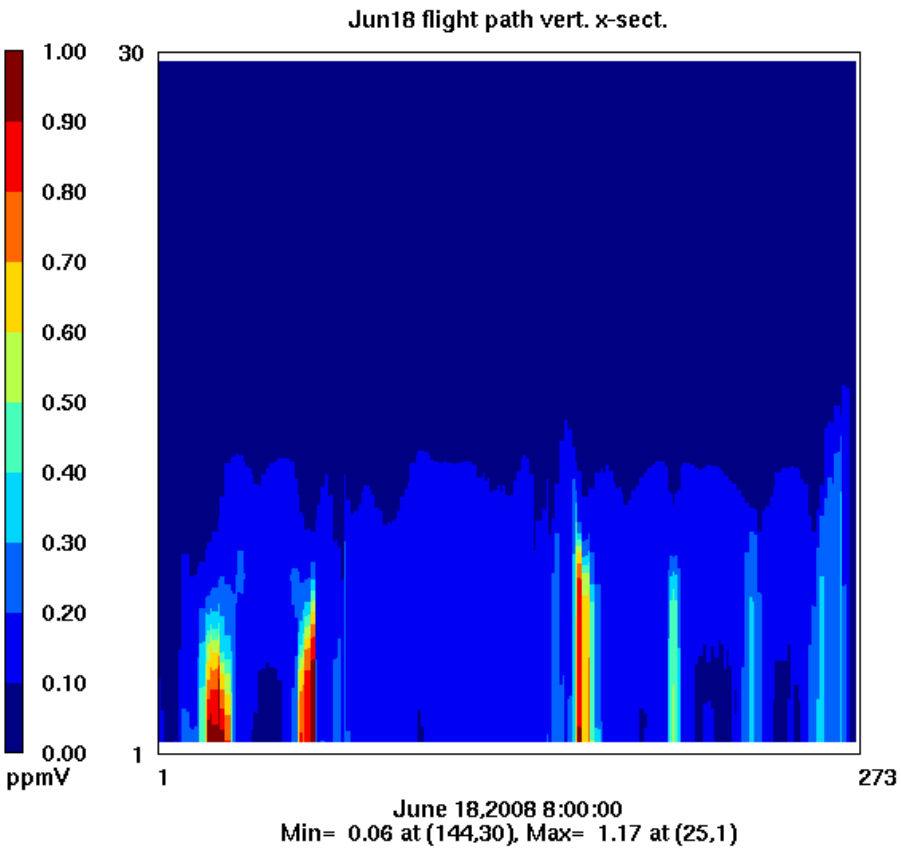


CO



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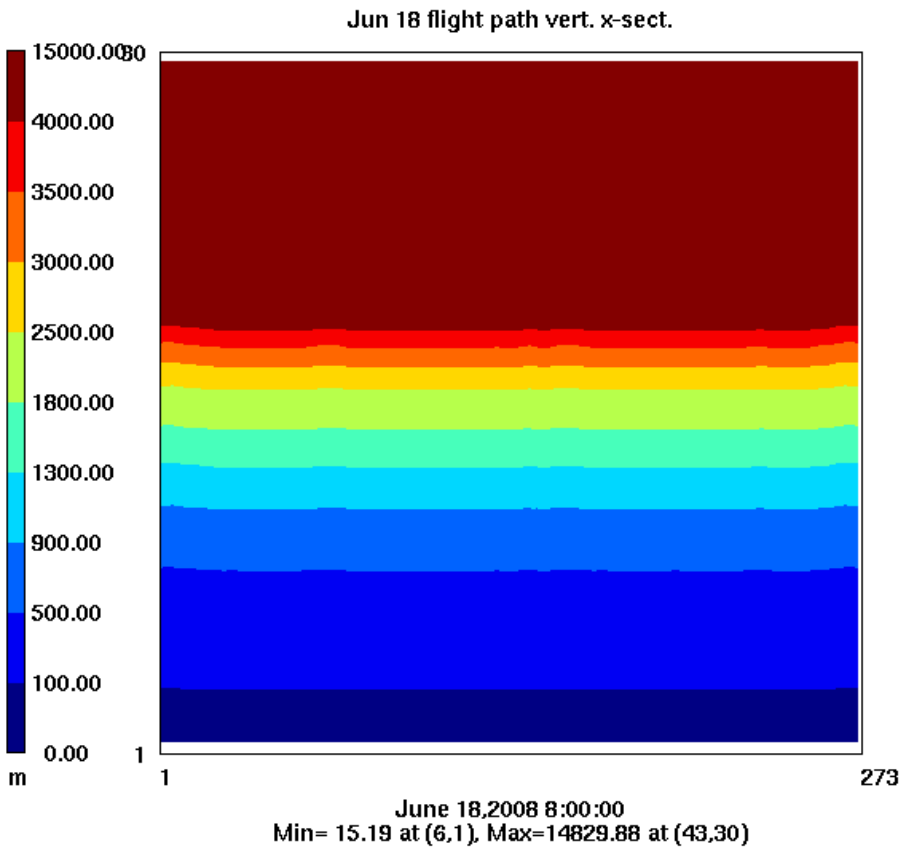
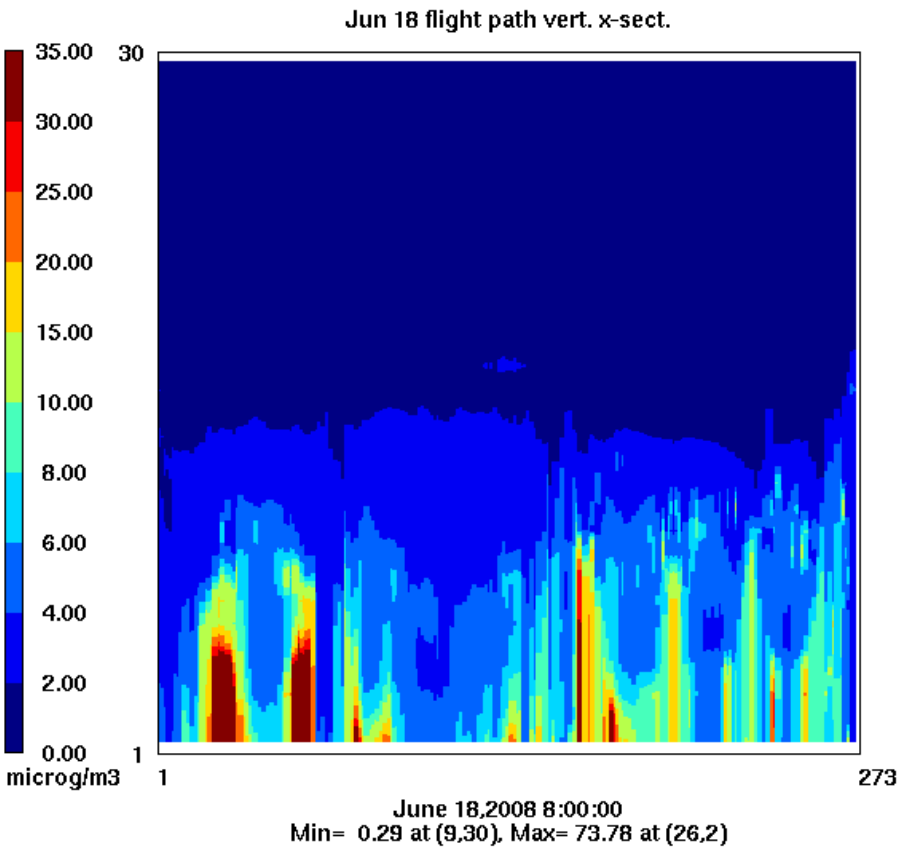
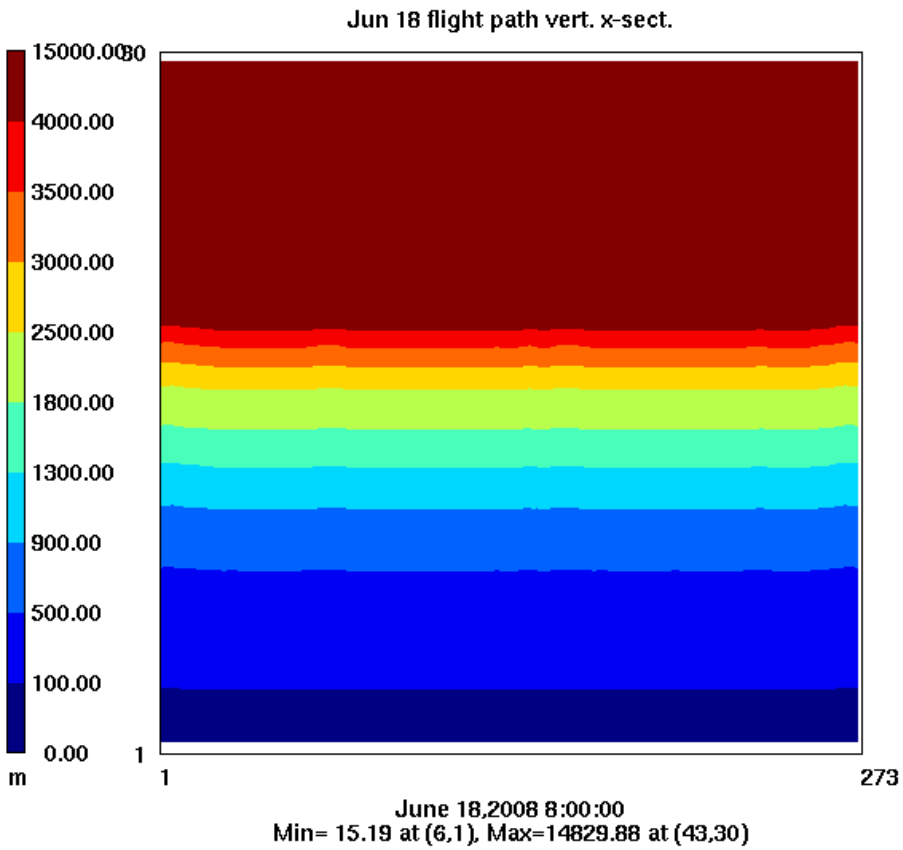


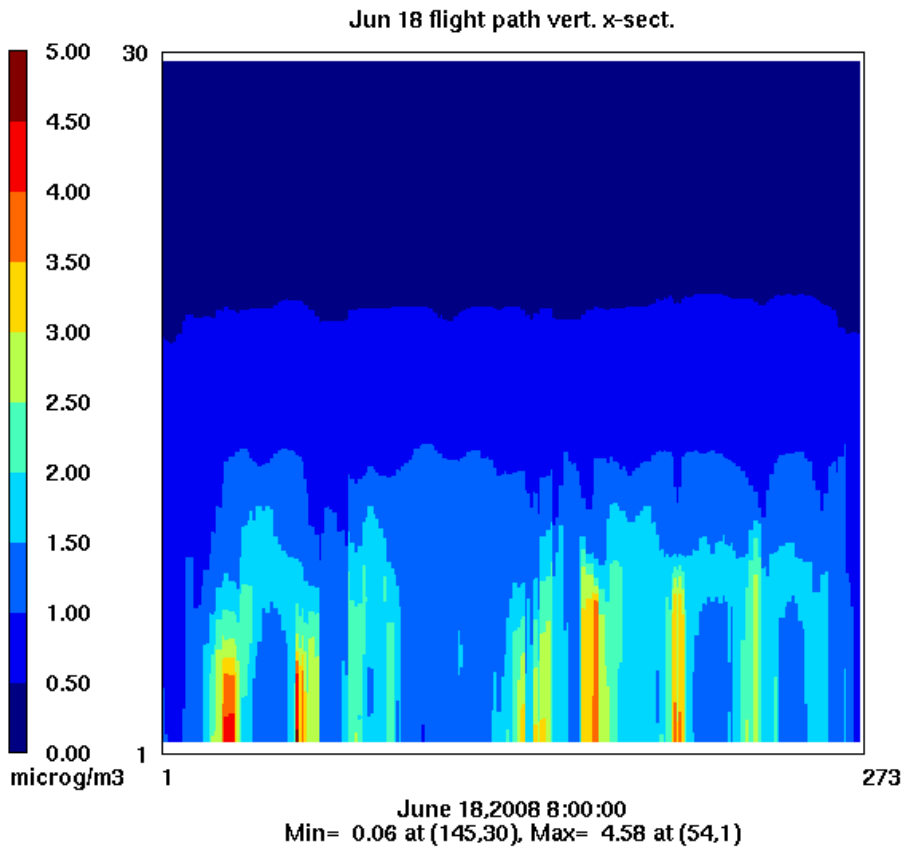
PM2.5



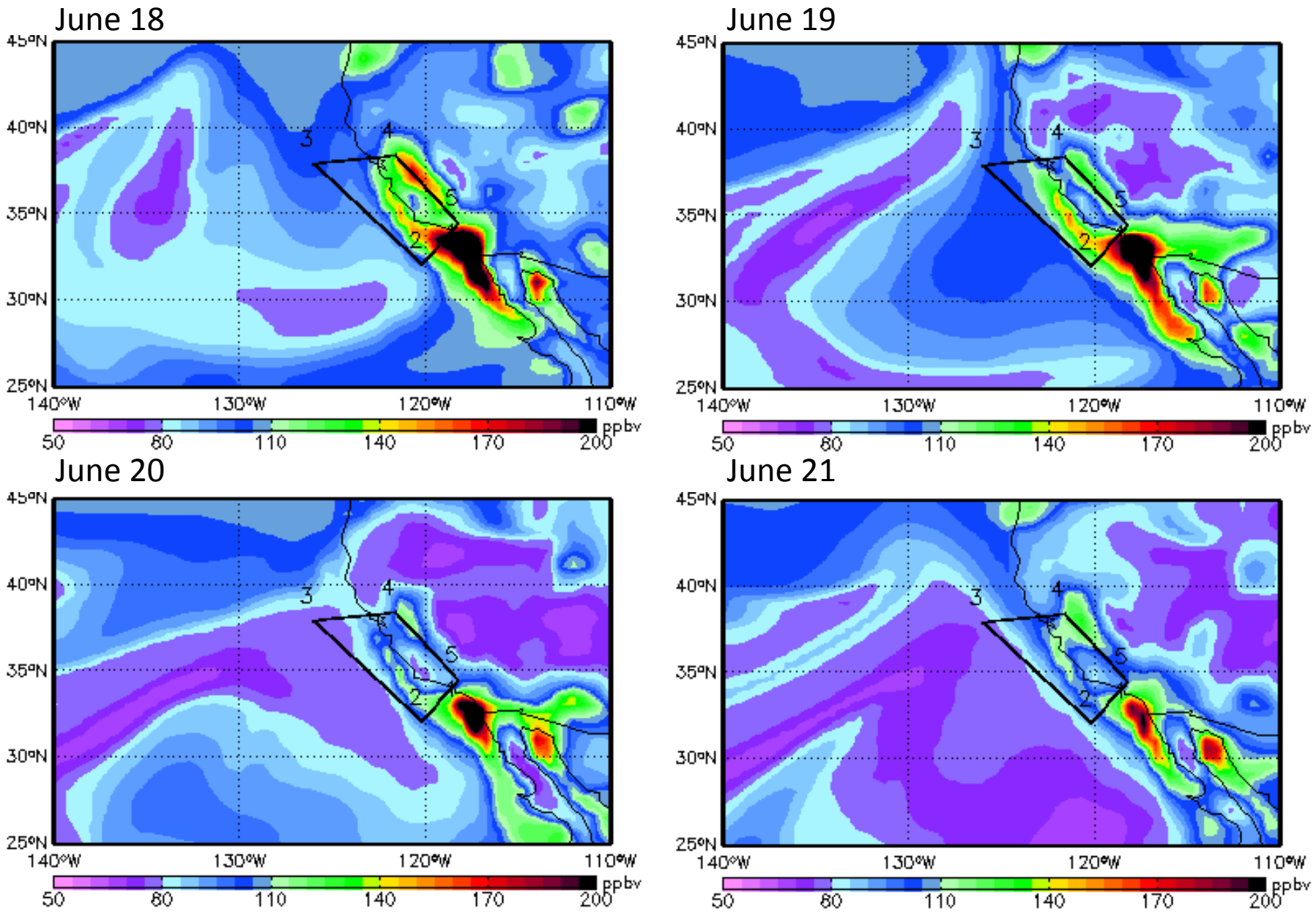
Height ABG



ASO4

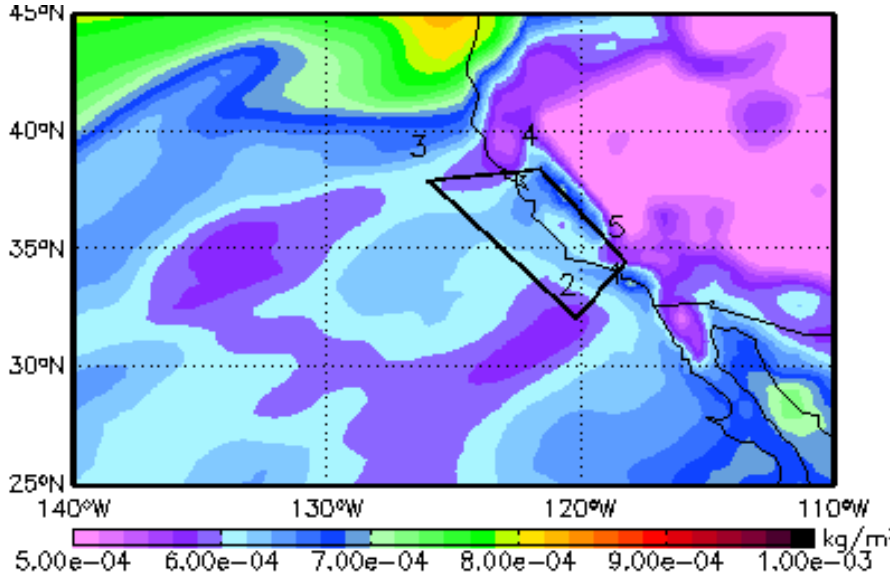


GEOS-5 Outlook: Surface CO at 19:30Z

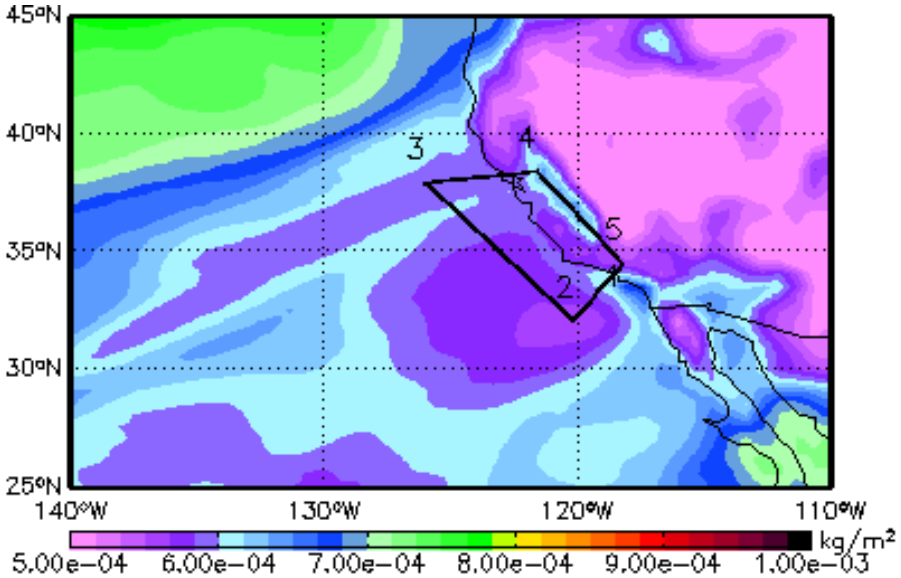


GEOS-5 Outlook: Total Column CO at 19:30Z

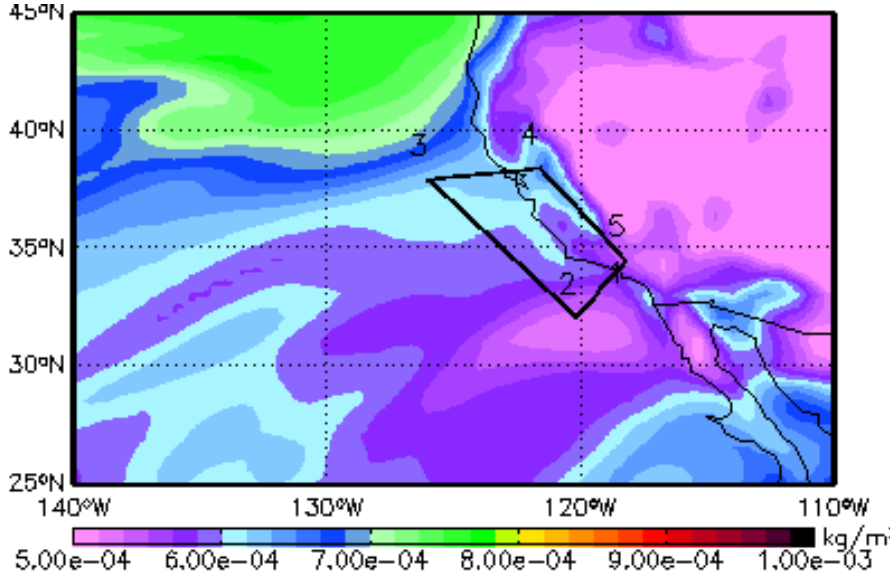
June 18



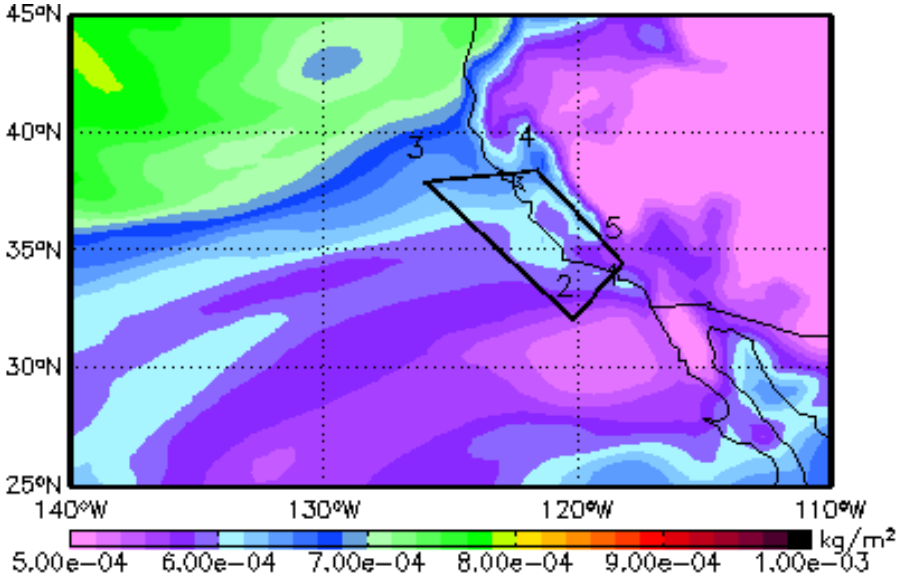
June 19



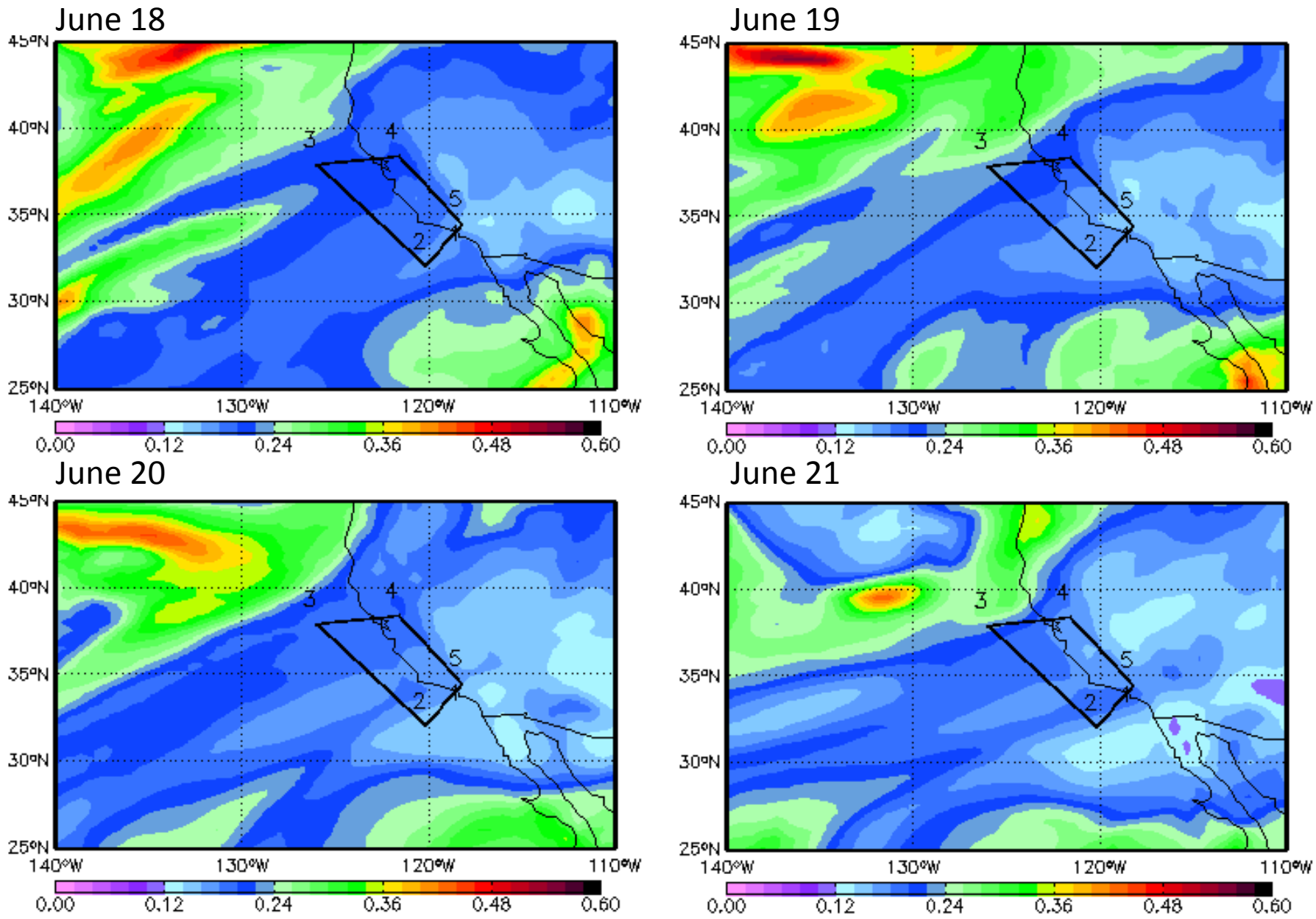
June 20



June 21



GEOS-5 Outlook: Total AOT at 19:30Z



GEOS-5 forecast for 20080618

Initialized at 20080617_00Z

Proposed Flight Plan: SoCal-3 - 06/18/2008

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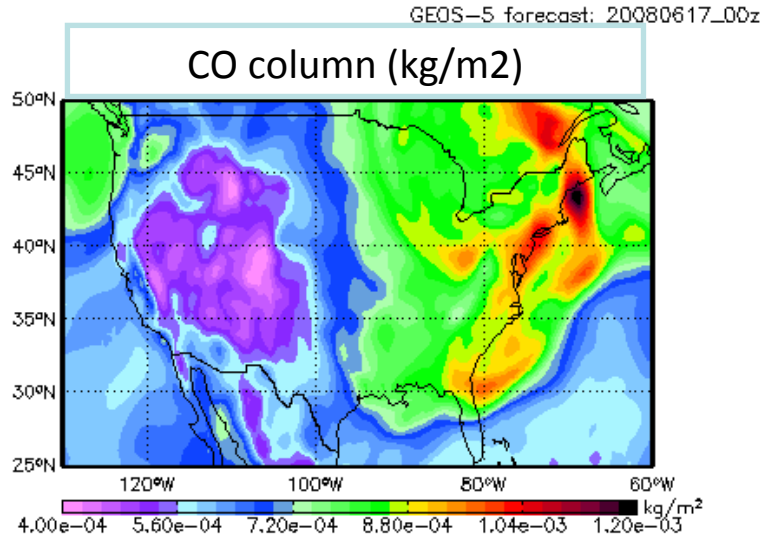
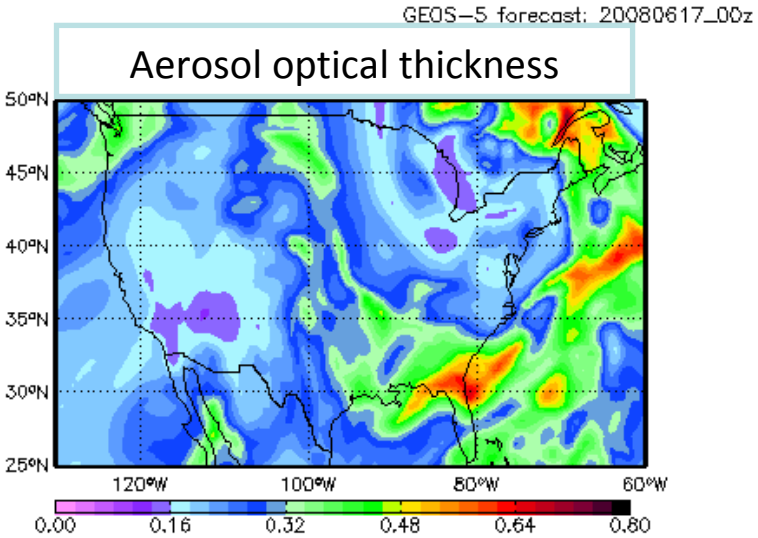
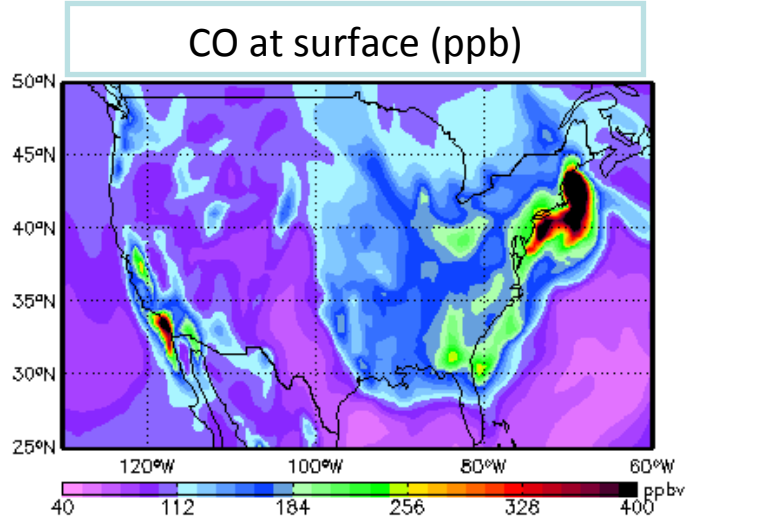
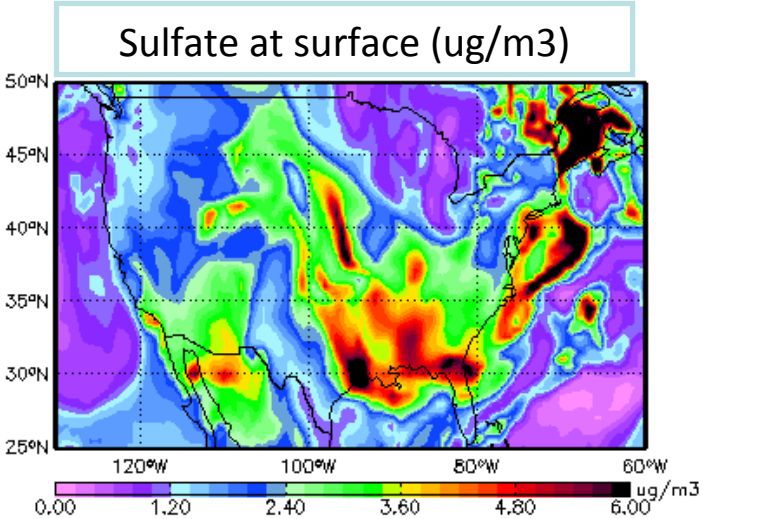
5) Spiral at point 27/28 up to 20,000 ft or no detectable CH_4 vertical gradient .

CO and Aerosol maps (16:30z)

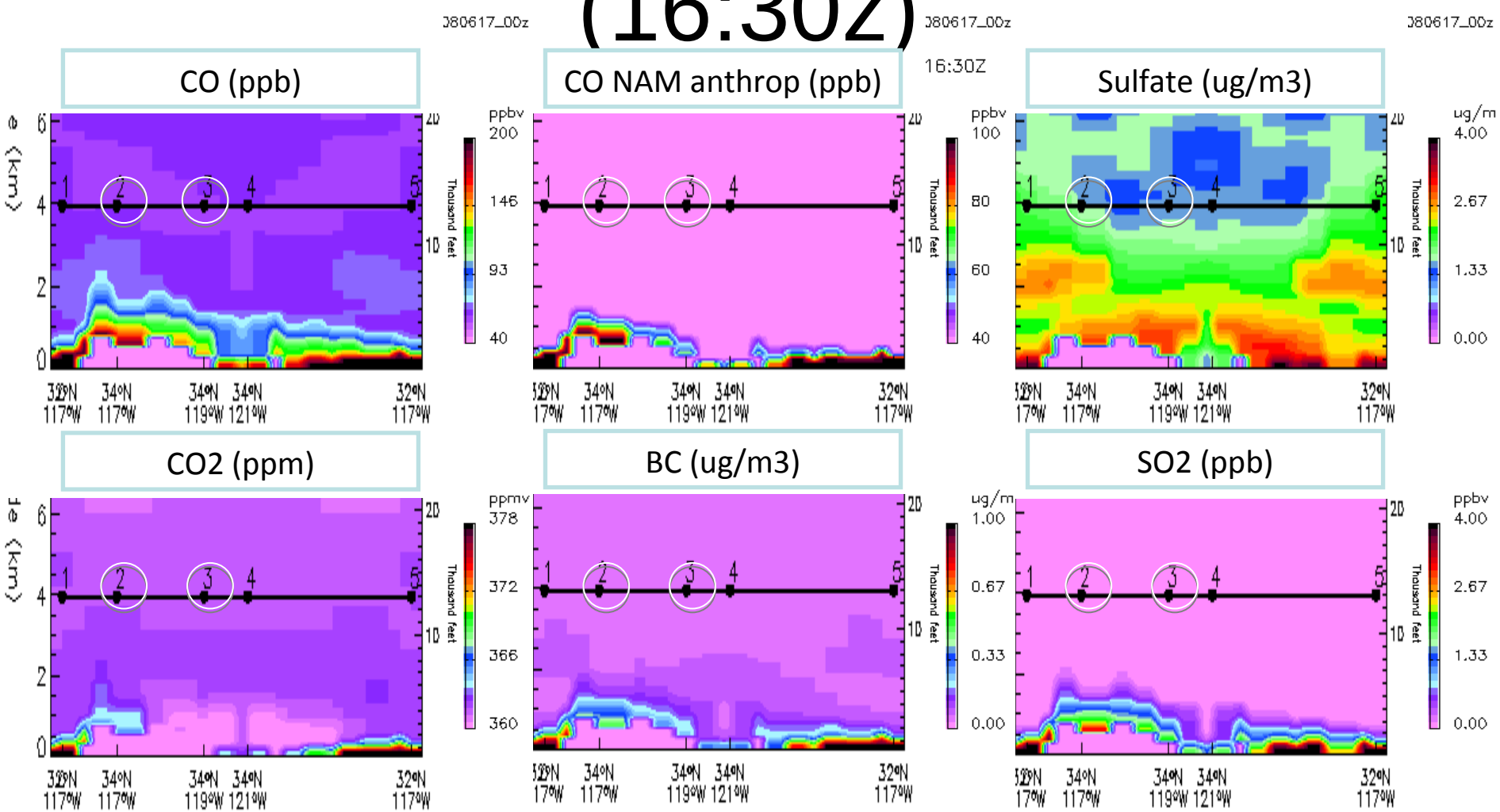








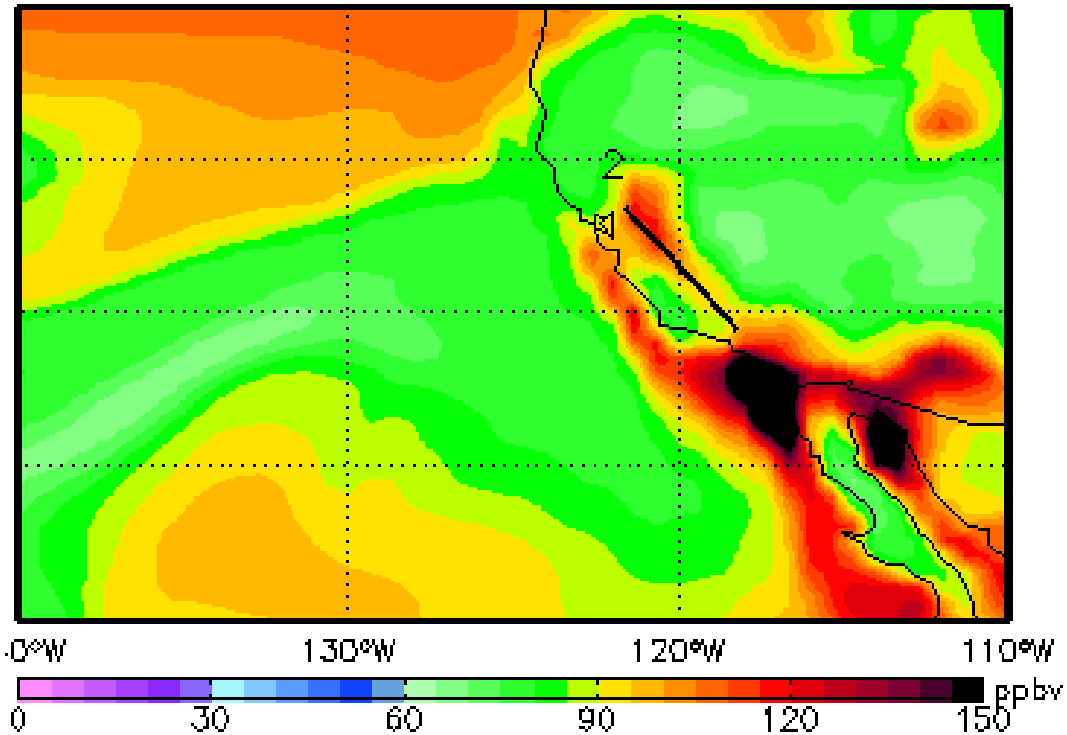
CO, CO2, Aerosol curtains (16:30z)



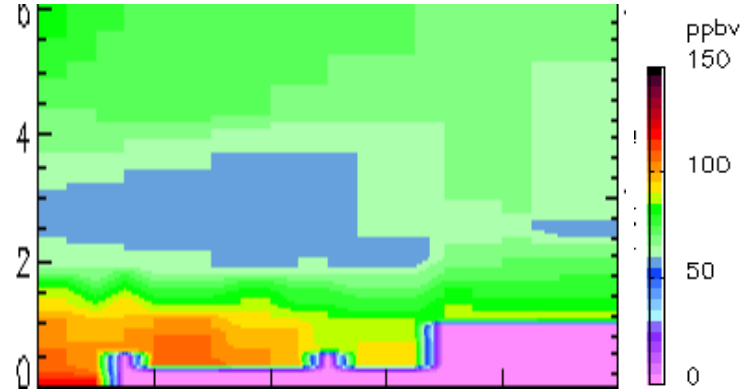
1 and 5: way point #41 2: way point #3 (spiral) 3: way point #28 (spiral) 4: way point #22
1-4: over land 4-5: over water

June 20th: Potential flight over San Joaquin Valley

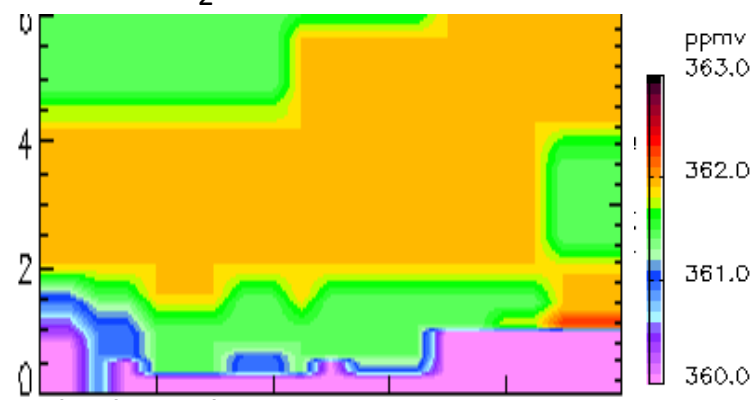
Total Surface CO (all at 19:30Z)



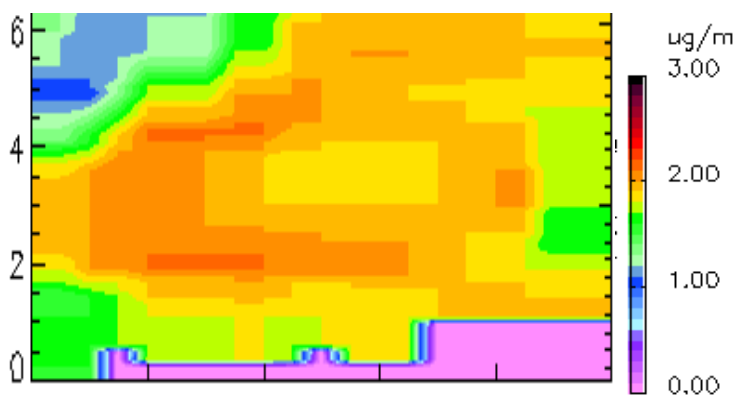
Total CO



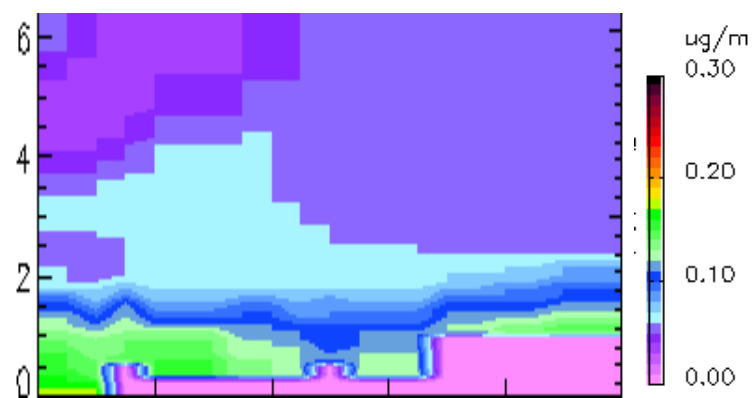
Total CO_2



Sulfate aerosol

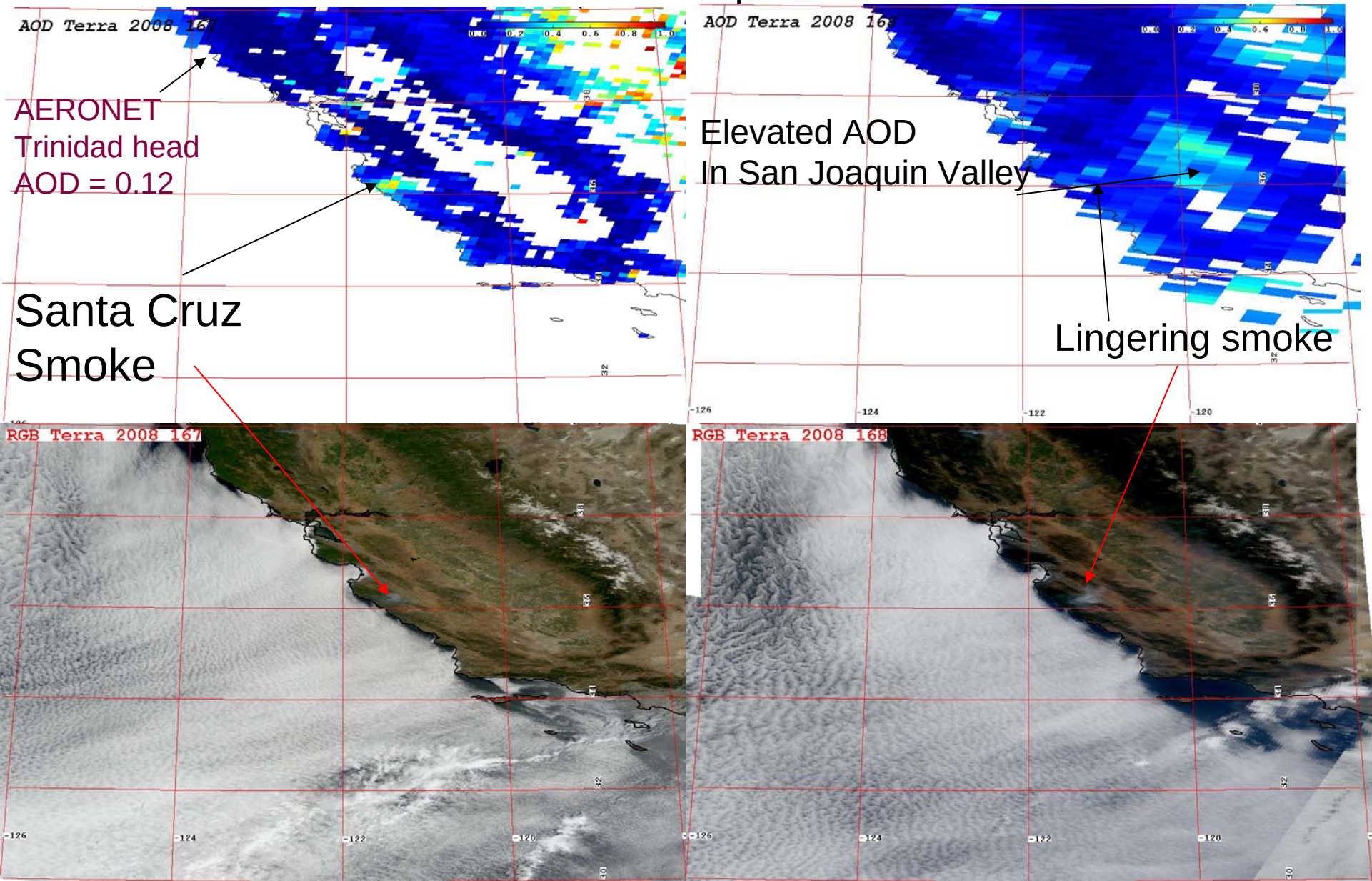


Black Carbon



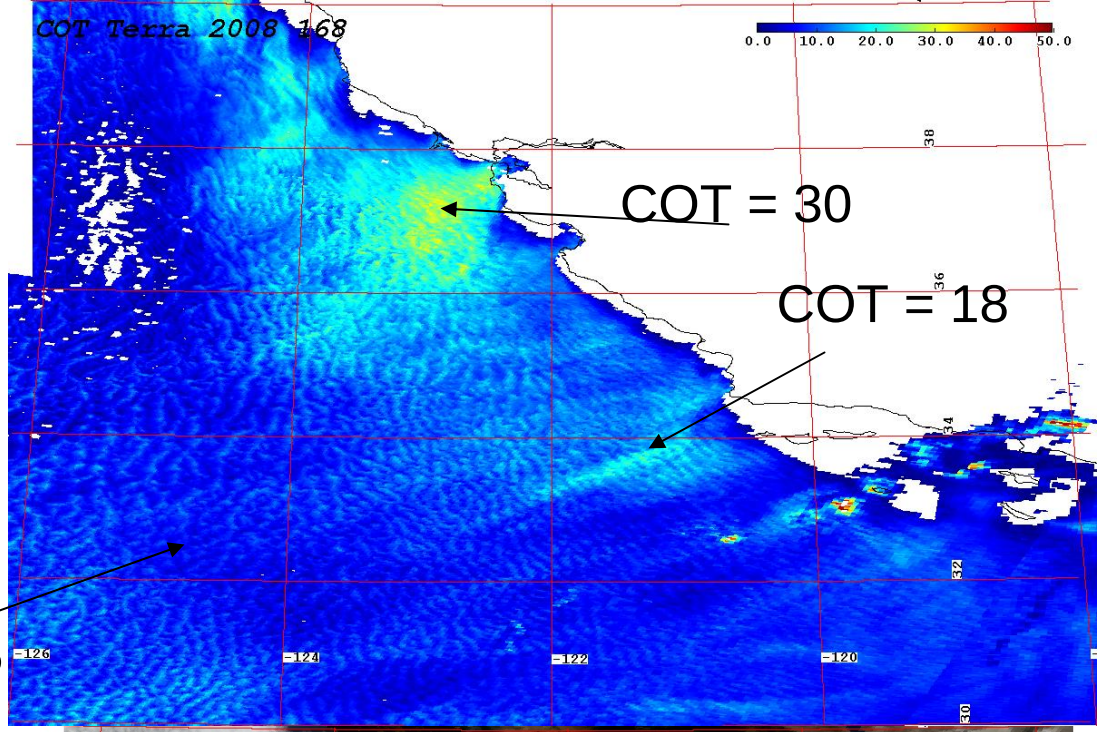
Day 167 & 168 (June 15 & 16) Sun. (Left) and Mon. (Right)

MODIS AOD Hot Spots in California



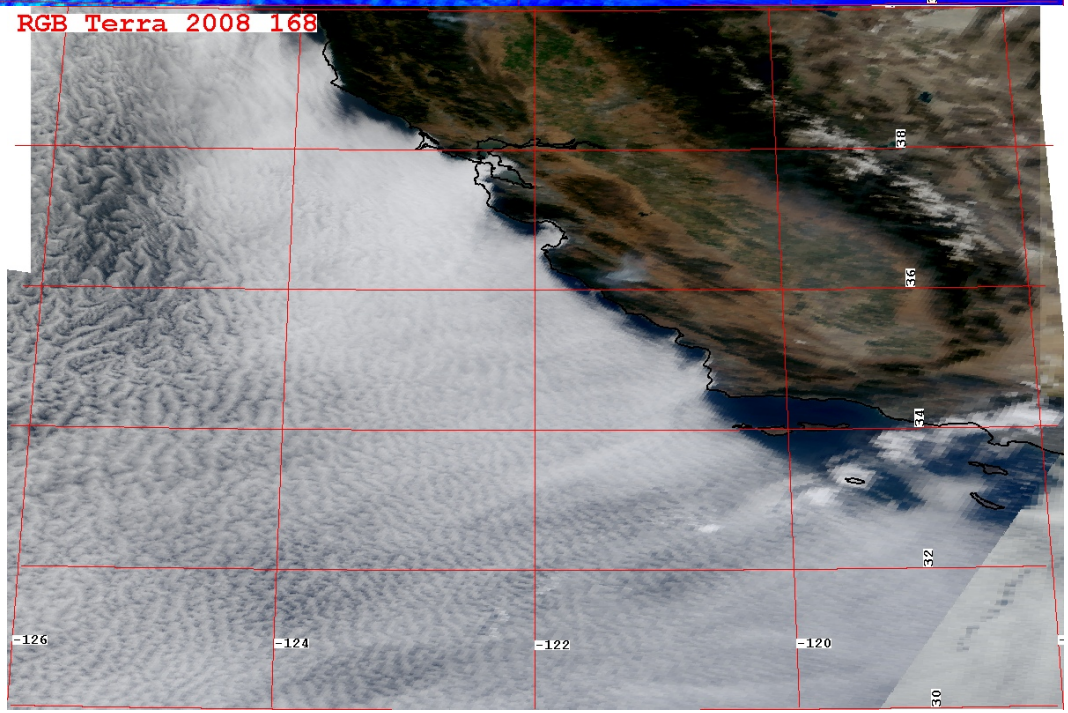
Cloud Optical Thickness

Monday
June 16



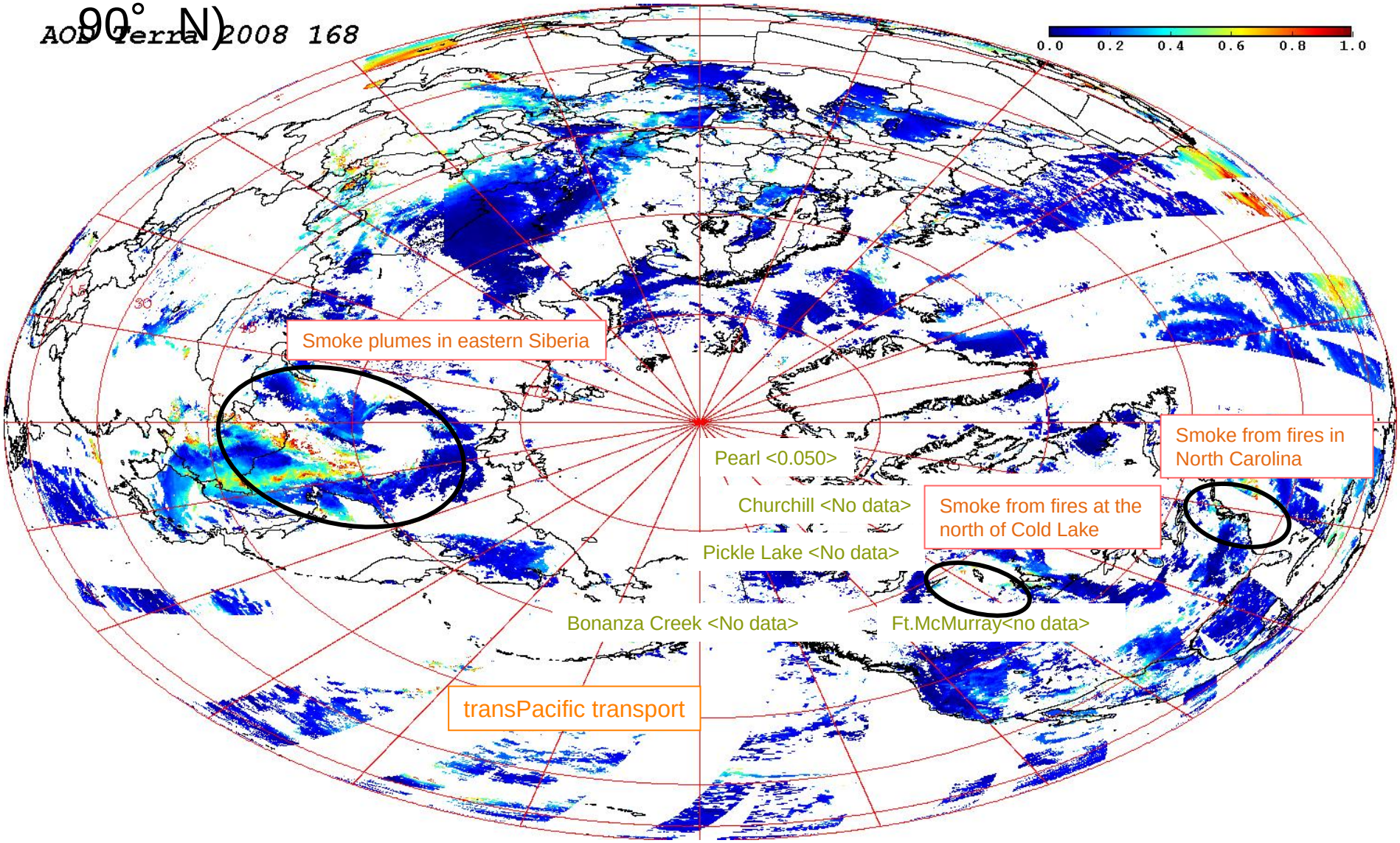
For the radiation people in the audience…

Suggested aerosol Influence on COT (aerosol Indirect effect)



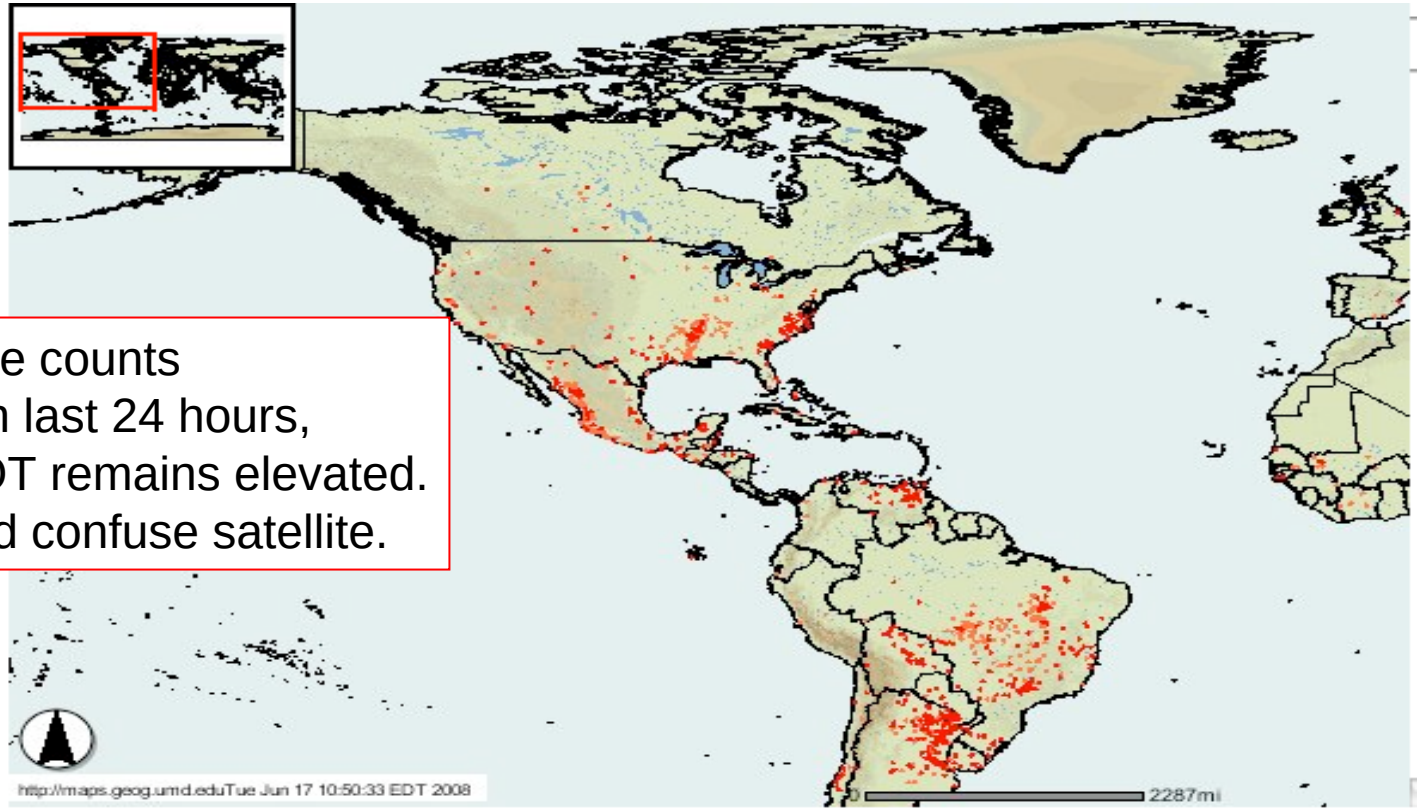
Day 168 (June 16) Monday

MODIS AOD Hot Spots in Northern Hemisphere (0° - 90° N)



MODIS AOD at 550 nm and AERNOET daily mean <AOD> at 500 nm

MODIS Global Active Fire Count Map In Last 24 hours (Red) & 72 hours (Yellow)

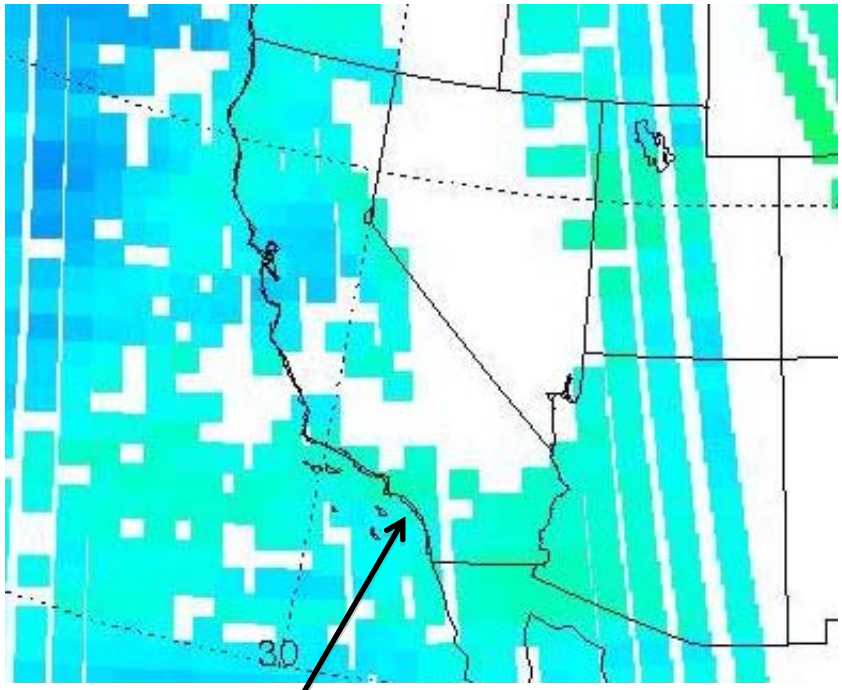


Not many fire counts
in Canada in last 24 hours,
although AOT remains elevated.
Clouds could confuse satellite.

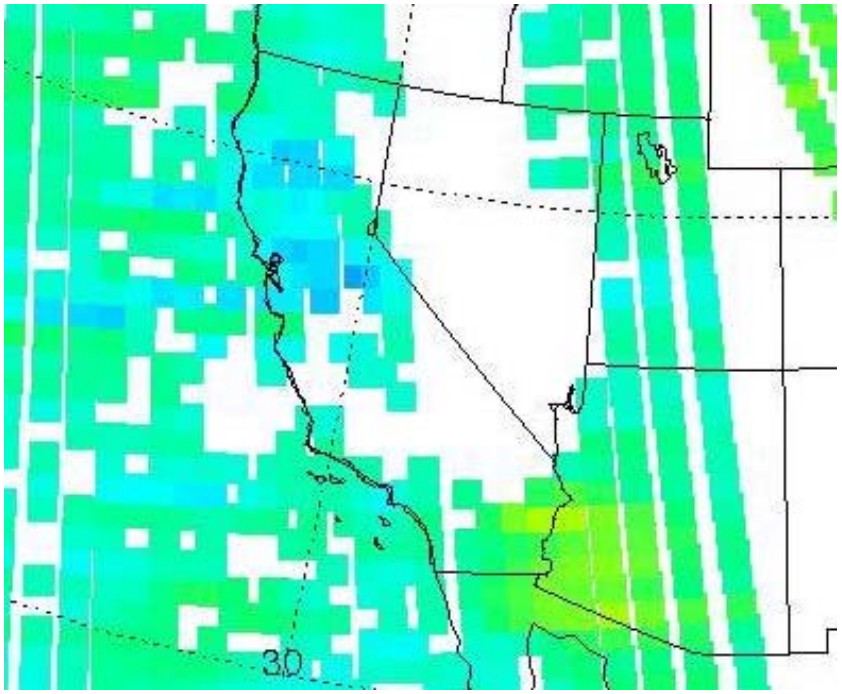
http://maps.geog.umd.edu/activefire_html

AIRS Support for CARB

AIRS CO June 16 & 17



AIRS CH4 June 16 & 17



- Some higher CO over North of LA area.
- CH4 lower than surrounding areas, difficult to tell due to noise
- Southern CA relatively free of high transported CO (less than 100 ppbv).
- AIRS CO most sensitive at 500mb and CH4 at 300mb.