

ACAM Flight Report – California Deployment

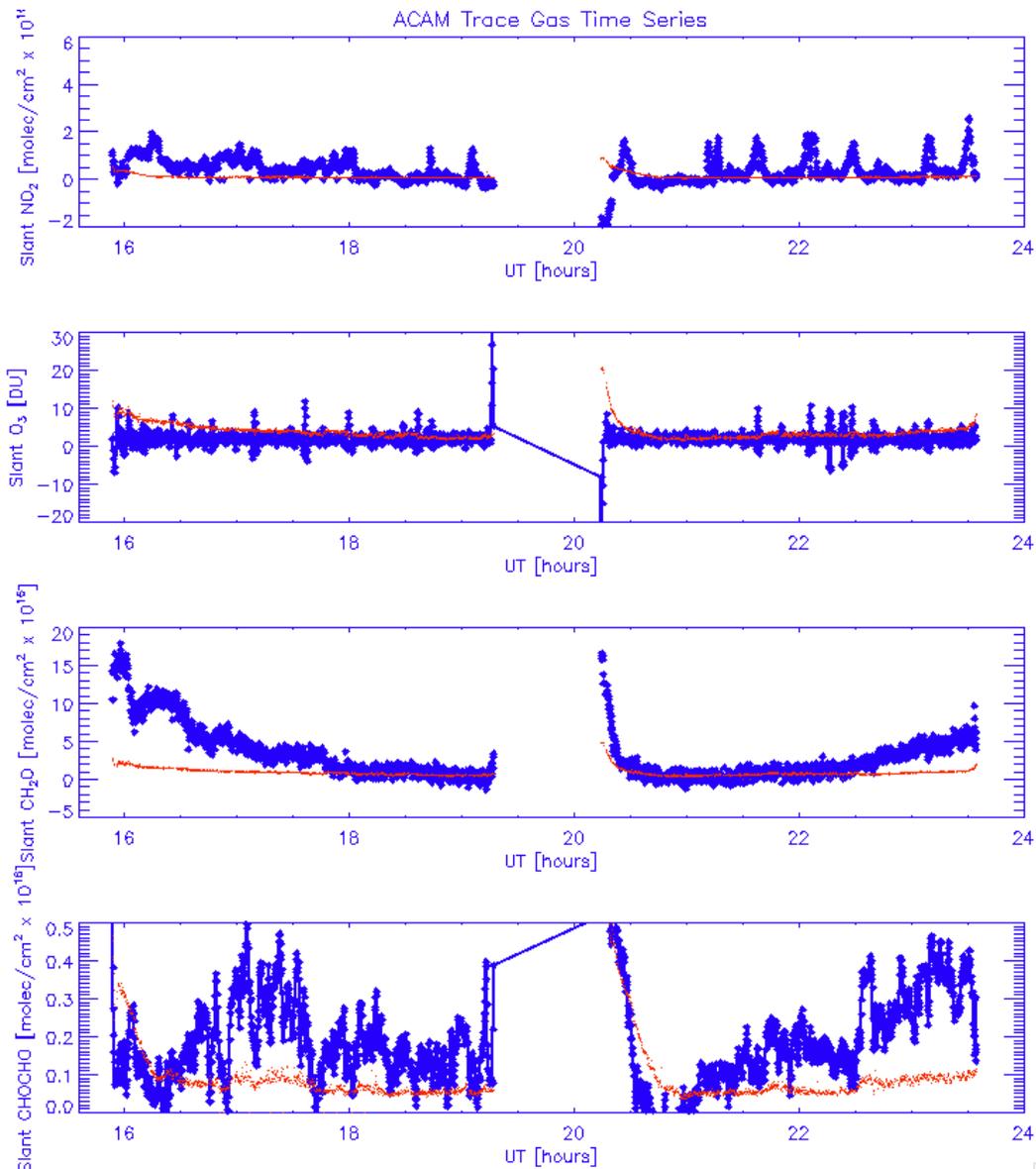
Date of operation: 01/20/2013

Operations and instrument status

Instrument operations were normal.

Science Summary

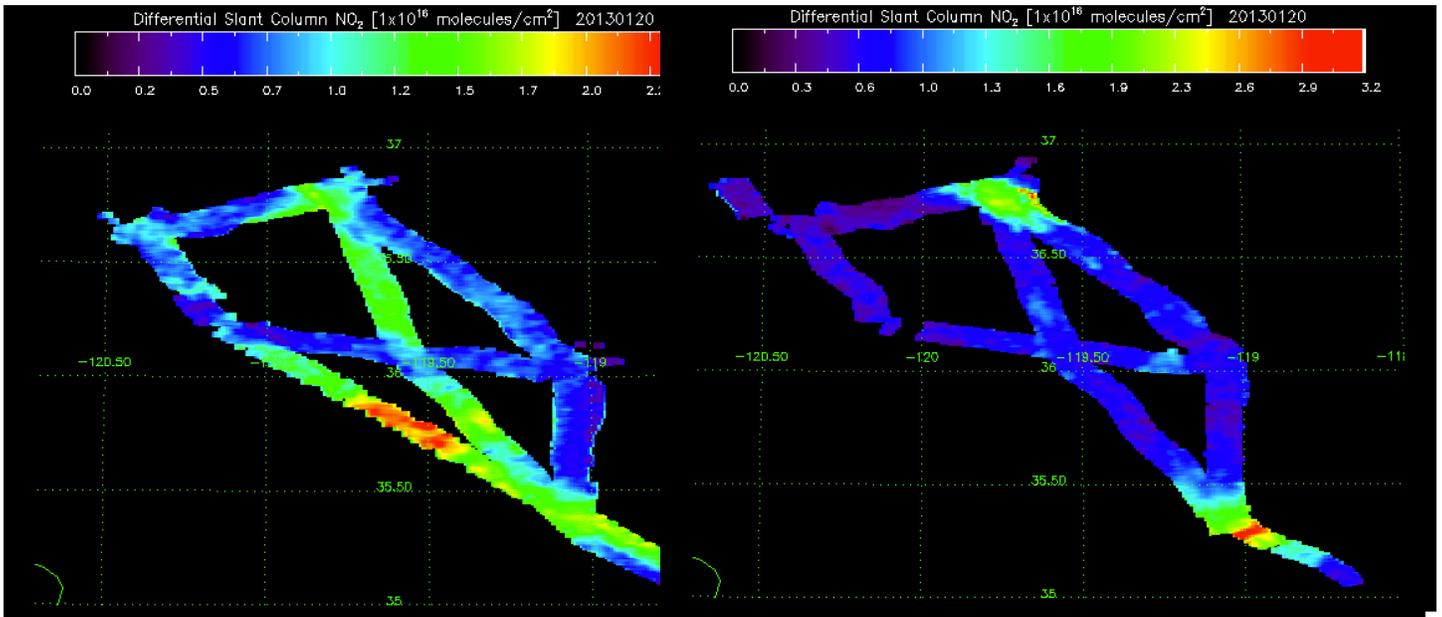
Trace gas measurements are shown below as differential slant column values relative to a minimum solar zenith angle reference. The same NO_2 hot spots are seen in the Bakersfield and Fresno area in the afternoon but at $\sim 1/2$ the levels seen on previous days due to the decrease in traffic on the weekend. All other locations show relatively low levels. Some early enhancements in CH_2O are also observed. Also shown is retrieved CHOCHO which shows elevated levels and a hot spot west of Fresno in the morning.



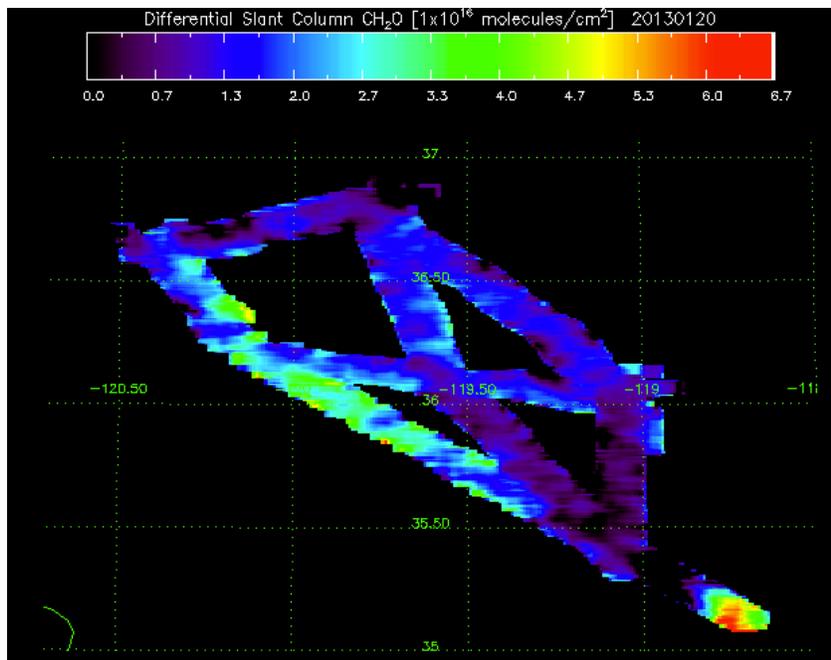
Time series plots of NO_2 O_3 CH_2 and CH_2O_2

Morning

Afternoon



NO₂ values over Fresno peak around 2e16 molecules/cm² in the afternoon, a factor of 2 lower than previously seen.



There are two enhancements of CH₂O seen only on the first leg of the morning flight, SE of Bakersfield and on the approach to the Huron site.