

ACAM Flight Report

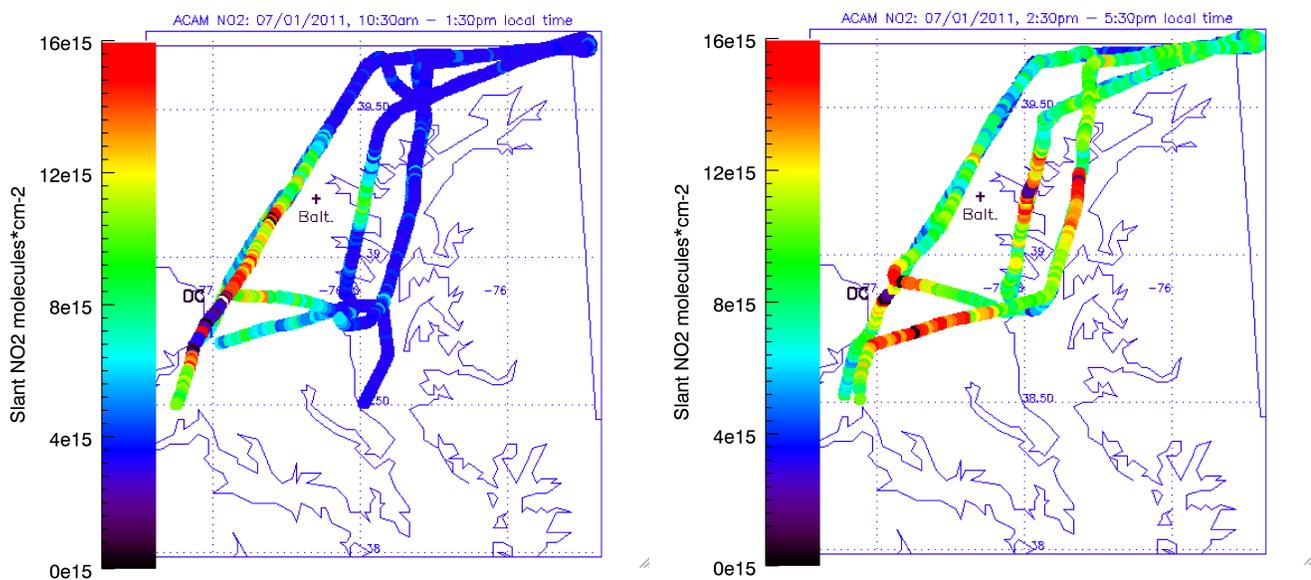
Flight #1 – 07/01/2011

Operations and instrument status

The instrument performed well throughout both flight segments. Spectrometer temperatures stabilized well before the initial approach to DC and remained very stable. The Nadir video camera was operational.

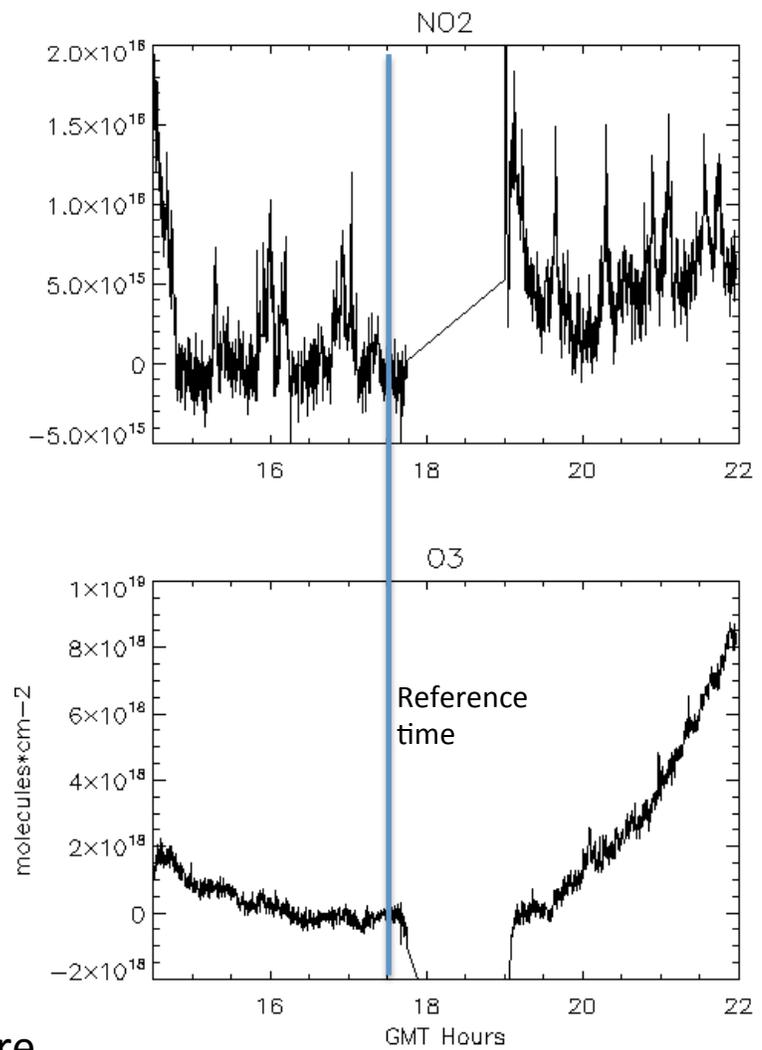
Science Summary

NO₂ measurements are shown below as differential slant column values relative to a spectrum with low boundary layer NO₂ at minimum solar zenith angle. Highly variable NO₂ structure is seen in the immediate DC area and to the south and southeast of DC, and to the east of Baltimore in the afternoon. Localized peak values were about the same between the morning and afternoon segments.



Preliminary NO₂ data. Swath averaged resolution 7.5km x 1.2km

Time series for NO_2 and O_3 .
(HCHO was below the minimum instrument sensitivity and is not shown) The gradual change seen in the O_3 trace is due to the increase in absorption path length as the sun elevation decreases relative to local noon.



Example video frame capture

