

ACAM Flight Report

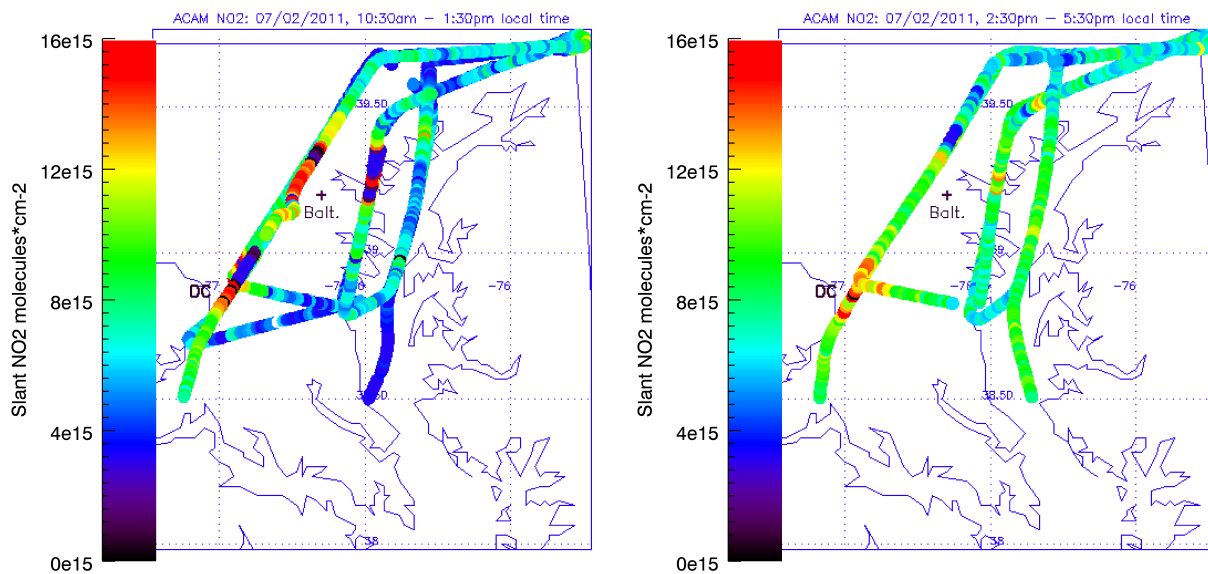
Flight #2 – 07/02/2011

Operations and instrument status

Instrument performance was normal.

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 east of Baltimore. In contrast with measurements from Flight #1, localized peak values were highest during the morning segment, especially along the I-95 corridor. The peak NO₂ magnitudes during the afternoon segment were significantly lower than both the morning segment and Flight #1 values.



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. Additional analysis is required to determine the source of the enhancement in the O_3 signal later in the afternoon relative to the Flight #1 signal.

