

Flight Report: DISCOVER-AQ Science Flight #4

From: KEFD To: KEFD

Start: 09/12/13 13:50 Z Finish: 09/12/13 21:50 Z

Flight Time: 8.0 hours

Log Number: 13P201 PI: James Crawford

Funding Source: Hal Maring - NASA - SMD Radiation Science Program

Official report logged at:

http://airbornescience.nasa.gov/flight_reports/P-3_Orion_09_12_13

Flight	Date	Duration	Cumulative Hours	DISCOVER-AQ Hours remaining
<i>Total Allocated</i>				100
ECF	8/27/13	2.3	2.3	97.7
PCF	8/28/13	2.1	4.4	95.6
Transit	9/2/13	3.9	8.3	91.7
Science Flight - 1	9/4/13	8.0	16.3	83.7
Science Flight - 2	9/6/13	7.9	24.2	75.8
Science Flight - 3	9/11/13	8.2	32.4	67.6
Science Flight - 4	9/12/13	8.0	40.4	59.6

Comments: This was the fourth science flight for DISCOVER-AQ. During this flight, 22 spirals were successfully completed. Time ran out on the final two spirals at Deer Park and Manvel Croix due to the need to profile more deeply over some locations (to 13-14,000 feet) to capture the elevated aerosol layer that has persisted throughout the campaign up to this point. Current evidence suggests that this aerosol layer is from agricultural fires to the east over the Mississippi River Valley and surrounding regions. Further analysis will be needed to confirm this hypothesis. Ozone levels were more modest than the previous day, with levels around 70 ppbv observed along the portion of the flight over the ship channel leading into Moody Tower.