

Flight Report: DISCOVER-AQ Science Flight #7

From: KEFD To: KEFD

Start: 09/24/13 13:53 Z Finish: 09/24/13 21:45 Z

Flight Times: 7.9 hours

Log Number: 13P201 PI: James Crawford

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

Official report logged at:

[https://airbornescience.nasa.gov/flight_reports/P-3 Orion 09 24 13](https://airbornescience.nasa.gov/flight_reports/P-3_Orion_09_24_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
Science Flight - 5	9/13/13	7.9	48.3	51.7
Science Flight - 6	9/14/13	8.0	56.3	43.7
Aborted Flight	9/18/13	1.1	57.4	42.6
ECF	9/18/13	1.1	58.5	41.5
Science Flight - 7	9/24/13	7.9	66.4	33.6

Comments: This was the seventh science flight for DISCOVER-AQ. During this flight, 24 spirals were successfully completed. This day was the beginning of a period of promising conditions for a series of flights. Passage of a cold front was expected to lead to clear skies, but a persistent weak low just off the coast continued to put some clouds in the area. The smoke layer aloft observed in earlier flights was gone, having been swept out by the front, leaving only aerosols near the surface. The boundary layer aerosol distribution was highly variable, suggesting specific areas of strong surface sources. Ozone values remained modest on this day reaching only into the 60-70 ppbv range.