

Flight Report: DISCOVER-AQ Science Flight #5

From: KPMD To: KPMD

Start: 01/22/13 15:50 Z Finish: 01/22/13 23:46 Z

Flight Time: 7.9 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 01 22 13](http://airbornescience.nasa.gov/flight_reports/P-3_Orion_01_22_13)

Flight	Date	Duration	Cumulative Hours	DISCOVER-AQ Hours remaining	PODEX Hours remaining
<i>Total Allocated</i>				100	21
ECF	1/10/13	1.1	1.1	98.9	21
ECF -2	1/10/13	0.6	1.7	98.3	21
PCF	1/10/13	2.1	3.8	96.2	21
Transit	1/14/13	8.3	12.1	87.9	21
Science Flight – 1	1/16/13	8.4	20.5	79.5	21
Science Flight – 2	1/18/13	7.6	28.1	71.9	21
Science Flight – 3	1/20/13	7.4	35.5	64.5	21
Science Flight – 4	1/21/13	7.6	43.1	56.9	21
Science Flight – 5	1/22/13	7.9	51	49	21

Comments: This was the fifth science flight for DISCOVER-AQ. With conditions predicted to deteriorate in terms of cloudiness, this was our last flight to document an extended period of pollution buildup in the central valley. PM2.5 at Bakersfield nearly tripled during this time, and levels violated National Ambient Air Quality Standards over the last three days. Fog was even less of a problem today than it was on the previous two days, and almost all missed approaches were accomplished. Reporter, Tim Sheehan, of the Fresno Bee was a guest on today's flight and was treated to front seat view of what we are doing to understand air quality across the valley. This flight was finished with an additional sampling run to the SW corner of the valley where UCI graduate student Greg Hartt is studying emissions from active oil and gas exploration in that area. These samples will provide a good comparison for emission over Oildale and will become a standard part of the remainder of DISCOVER-AQ flights.