

Flight Report: DISCOVER-AQ Science Flight #5

From: KPMD To: KPMD

Start: 01/28/13 18:14 Z Finish: 01/28/13 23:35 Z

Flight Time: 5.49 hours

Log Number: 13P302 PI: David Starr

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

Official report logged at:

[http://airbornescience.nasa.gov/flight_reports/P-3 Orion 01 28 13](http://airbornescience.nasa.gov/flight_reports/P-3_Orion_01_28_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
PODEX - 1	1/28/13	5.4	56.4	49	15.6

Comments: This was the first dedicated PODEX flight for DISCOVER-AQ. The target area was planned for clear skies over the ocean off the coast of southern California with low level marine stratocumulus. The P-3B was directed by Jens Redemann and executed seven sampling legs across the marine cloud field characterizing the cloud properties for the polarimeters flying overhead on the ER-2. Flights focused on sampling just above and below cloud base as well as legs within the clouds. The cloud deck was open cell, so transects in cloud could not be sustained for more than a few tens of seconds. The atmosphere in the region was very clean, with scattering consistently less than 10/Mm. Some instruments (DFGAS and PTR-ToF-MS) saw evidence of uptake for some soluble species in the clouds.