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Flight Report

Aircraft :	NASA 528 (LaRC UC-12)
Operating Site(s) From / To :	KFAF (Felker) -KFAF
Flight Date :	7/10/2011
Flight Number :	HSRL R274 A & B (DISCOVER AQ 5A &5B) And a Ferry Flight (KFAF to KPHF) prior to research
Take Off Time :	F: 1335 Z A: 1430 Z B: 1901 Z
Landing Time :	F: 1342 Z A: 1820 Z B: 2256 Z
Flight Time :	F: 0.1 A: 3.8 hours B: 3.9 hours 7.8 hours Total
Flt Request # / PI:	11B-201 SOFRS 11-080 LaRC
Purpose of Flight :	Data [<input checked="" type="checkbox"/>] Ferry [<input type="checkbox"/>] Functional Check [<input type="checkbox"/>] Other [<input type="checkbox"/>]
Aircraft Status:	Up [<input checked="" type="checkbox"/>] Down [<input type="checkbox"/>]
Sensor Payload :	DISCOVER-AQ (HSRL & ACAM)
Comments :	Discover AQ Research Flights with HSRL & ACAM. Second event with aircraft based at KFAF due to KLF1 runway closure. (Ferry hop from FAF to PHF required for fuel). FL260, good ATC coordination. Next flight tentatively scheduled for 14 July 2011

SUBMITTED BY Luci Crittenden **DATE:** 7/12/11

Flight Notes

Flight Name: R-273a

Date: 7/11/2011

Personnel: Kagey, Crittenden, Obland

Take Off Time: 14:30 UTC

- First flight of day for DISCOVER-AQ. Standard pattern.
- 14:17 UTC System startup nominal.
- 14:37 UTC ACAM is activated and awaiting packets.
- 14:38 UTC Conditions are very hazy today, hopefully we will get interesting data.
- 14:40 UTC ACAM taking data
- 14:49 UTC HSRL is out of setup mode and operating normally.
- 15:02 UTC Finished with first set of calcs.
- 15:04 UTC Note that Rich sent a message a few minutes ago saying the the P-3 would be delayed 1-2 hours due to ozone sensor problem. We are to proceed as planned.
- 16:05 UTC 3 cameras off for pass over Aberdeen.
- 16:11 UTC 3 cameras back on.
- 16:20 UTC Adjusted Canon camera exposure to 1/250 from 1/160 to account for changing sun conditions.
- 17:03 UTC 3 cameras off for pass over Aberdeen.
- 17:09 UTC 3 cameras back on.
- 17:35 UTC Rich notified us that the P-3 just took off at 17:32 UTC. They had an ozone instrument problem that delayed their takeoff.
- 17:40 UTC 3 cameras off for pass over Aberdeen.
- 17:44 UTC 3 cameras on again.
- 17:50 UTC Shuttered laser briefly to avoid aircraft below us.
- 17:56 UTC Finished second set of calcs.

Flight Name: R-273b

Date: 7/11/2011

Personnel: Kagey, Crittenden, Obland

Take Off Time: 19:01 UTC

- Second flight of the day for DISCOVER-AQ. Standard pattern. Morning flight saw decent aerosols in the boundary layer and some lofted aerosol layer above the boundary layer and also increasing cloudiness.
- 18:57 UTC System startup nominal.
- 19:09 UTC ACAM activated.
- 19:13 UTC ACAM receiving packets.
- 19:17 UTC We are being vectored farther to the west than we would like by ATC due to high traffic.
- 19:39 UTC Finished calcs.
- 20:21 UTC Laser shuttered for aircraft passing underneath us.
- 20:22 UTC Laser is transmitting again.
- 20:43 UTC 3 cameras off for pass over Aberdeen.
- 20:45 UTC 3 cameras back on.
- 21:19 UTC Shuttered laser briefly for traffic underneath.
- 21:23 UTC Shuttered laser briefly for traffic underneath.
- 21:35 UTC We are coming under some high cirrus above us.
- 21:40 UTC 3 cameras off for pass over Aberdeen.
- 21:45 UTC 3 cameras back on.
- 22:10 UTC Adjusted Canon camera exposure due to setting sun.
- 22:16 UTC 3 cameras off for pass over Aberdeen.
- 22:21 UTC 3 cameras back on.
- 22:34 UTC Finished second set of calcs.
- 22:36 UTC In our descent. I am leaving system running until we land to take Applanix data for the full flight.