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## Flight Report

<b>Aircraft :</b>	NASA 528 (LaRC UC-12)
<b>Operating Site(s) From / To :</b>	KLFI (Langley) -KLFI
<b>Flight Date :</b>	7/02/2011
<b>Flight Number :</b>	HSRL R270 A & B (DISCOVER AQ 2A &2B)
<b>Take Off Time :</b>	A: 1358 Z B: 1839 Z
<b>Landing Time :</b>	A: 1800 Z B: 2216 Z
<b>Flight Time :</b>	A: 4.0 hours B: 3.6 hours 7.6 hours Total
<b>Flt Request # / PI:</b>	11-071 LaRC
<b>Purpose of Flight :</b>	Data [ <input checked="" type="checkbox"/> ] Ferry [ <input type="checkbox"/> ] Functional Check [ <input type="checkbox"/> ] Other [ <input type="checkbox"/> ]
<b>Aircraft Status:</b>	Up [ <input checked="" type="checkbox"/> ] Down [ <input type="checkbox"/> ]
<b>Sensor Payload :</b>	DISCOVER-AQ (HSRL & ACAM)
<b>Comments :</b>	Discover AQ Research Flights with HSRL & ACAM. FL260, ATC coordination good, Weather was good on first flight but encroaching mid and high level clouds from the north forced an early RTB on second flight. Picked up an opportunity data collection for HSRL down the length of the Chesapeake Bay on the return to LFI. Next flight scheduled for 4 July 2011

**SUBMITTED BY:** Rick Yasky      **DATE:** 7/02/11



- 14:07 UTC ACAM activated.
- 14:08 UTC Inadvertent load shed.
- 14:20 UTC I think system is up and running again. ACAM activated again.
- 14:30 UTC System is calibrated and nominal.
- 14:33 UTC laser off for aircraft below us.
- 14:34 UTC laser back on.
- 14:36 UTC Note that we are flying under mostly constant thin cirrus above. Not a good day for satellite comparison. UMBC MPL shows cloud base at 10.5 km, well above us.
- 14:37 UTC The Canon camera is active and operating correctly at 12 seconds cadence
- 14:56 UTC ATC is routing us off our path probably to avoid an airplane that we can see.
- 14:59 UTC We are back on track.
- 15:45 UTC 3 cameras off for passing over Aberdeen.
- 15:50 UTC 3 cameras back on.
- 15:57 UTC I changed the camera to manual and physically adjusted the focus on the lens. The images look much better. We can now pick out cars and tractor trailers.
- 16:43 UTC 3 cameras off for passing over Aberdeen.
- 16:46 UTC 3 cameras back on.
- 17:23 UTC 3 cameras off for passing over Aberdeen.
- 17:32 UTC 3 cameras back on.
- 17:45 UTC finished second set of calcs. Descending for RTB.

**Flight Name: R-270b**

**Date: 7/2/2011**

**Personnel: Yasky, Wusk, Obland**

**Take Off Time: 18:39 UTC**

- Second flight for today. Primary flight plan over DC.
- 18:48 UTC ACAM activated.
- 18:59 UTC System is out of setup mode and operating normally.
- 19:11 UTC Finished first set of calcs. System operation is nominal.
- 20:23 UTC 3 cameras off for pass over Aberdeen.
- 20:28 UTC 3 cameras on again.
- 20:39 UTC Getting into high thick clouds.
- 21:21 UTC 3 cameras off for pass over Aberdeen.
- 21:26 UTC I tried transferring the Canon camera images from this morning to a different folder and the Shuttle computer completely crashed. Restarting it. ACAM still seems to be active.
- 21:32 UTC 3 cameras back on.
- 21: UTC Finished second set of calcs. Heading back to base.