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## Flight Report

<b>Aircraft :</b>	N426NA P-3B Orion
<b>Operating Site(s) From / To :</b>	KWAL/KWAL
<b>Flight Date :</b>	6/30/2011
<b>Flight Number :</b>	1079
<b>Take Off Time :</b>	<b>Local / GMT</b> <b>PCF #2: 0856/1256</b>
<b>Landing Time :</b>	<b>Local / GMT</b> <b>PCF #2: 1145/1545</b>
<b>Flight Time :</b>	2.8 hrs.
<b>Flt Request # / PI:</b>	11P201 Dr. Jim Crawford (NASA LaRC) N/A [ ]
<b>Purpose of Flight(s) :</b>	Data <input type="checkbox"/> Ferry <input type="checkbox"/> Functional Check <input checked="" 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 mission configuration
<b>Comments :</b>	<ul style="list-style-type: none"><li>• Today's flight was the second and last PCF flight for the DISCOVER-AQ mission. This flight successfully tested all instruments, was flown on the mission profile flight tracks, exercised FAA coordination, and aircrew lookout and communication roles.</li></ul>

SUBMITTED BY: R. McKee

DATE: 6/30/2011

## Flight Hours Flown

<b>Flight</b>	<b>Date</b>	<b>Aircraft Flight #</b>	<b>Data Flight#</b>	<b>Duration (hr)</b>	<b>Remaining Hours*</b>
<i>Total Allocated</i>	6/26/2011				100
FCF	6/26/2011	1069		.8	100
DISCOVER-AQ ECF	6/26/2011	1069		1.6	98.4
PPF	6/26/2011	1069		1.1	98.4
PCF #1	6/28/2011	1074		2.6	95.8
Media Event Flight	6/28/2011	1074		.8	95.8
ECF #2	6/29/2011	1077		.9	94.9
PCF #2	6/30/2011	1079		2.8	92.1

**Science Comments:**

All instruments performed well today. Profiles over all sites were sufficient to sample both the polluted boundary layer and very clean overlying free troposphere today. That the 5.5 kft profile over Beltsville reached into the free troposphere at around 9:30 am was encouraging. Minimal delays were encountered along the route. One was on initial approach and the other was profiling over Essex in the vicinity of Martin State Airport. It is expected that we may sample our own exhaust at times during this spiral. Some profiles will need to be more precisely positioned, but pilots are already devising methods to ensure coincidence with ground sites. The circuit of ground sites was completed within 2 hours demonstrating that conducting 3 profiles over each site is achievable during a flight. Ferry to and from the area from Wallops was about 20 minutes, allowing for over 7 hours of sampling over the area of interest once science flights begin.

WE ARE READY FOR SCIENCE!