

B-200 (UC-12B) - LARC 07/23/13

Aircraft: [B-200 \(UC-12B\) - LARC](#) (See full schedule)

Flight Number: DAWN 2013 R-9

Payload Configuration: NASA Langley's Doppler Aerosol Wind Lidar System (DAWN)

Nav Data Collected: No

Total Flight Time: 2 hours

Submitted by: Michael S. Wusk on 07/23/13

Flight Segments:

From:	KLFI	To:	KLFI
Start:	07/23/13 12:50 Z	Finish:	07/23/13 14:48 Z
Flight Time:	2 hours		
Log Number:	13B012 - Completed as of this flight.	PI:	Michael Kavaya
Funding Source:	Bruce Fisher - NASA - SMD - ESD LARC Chief Engineer, Research Services Directorate		
Purpose of Flight:	Science		
Comments:	<p>DAWN's DATA flight #9, Tues 23 July. Target area Charlotte, low cloud cover existed over the much of the area. Our plan was to fly as filed and coordinate diversions as needed to cloud free areas. N528NA Takeoff: 0850 Landing: 1048 Duration: 2.0 hrs (1.4 hr above 12.5K, TO weight 13,500#) Crew: Kagey (PIC), Wusk (OE), Kavaya (QNC), Cowen (QNC) Preflight and takeoff procedures were nominal. We took off on Runway 26, and climbed to the west eventually reaching FL220. Larry completed powering up the DAWN system laser and ran systems checks enroute. Low cloud cover existed over much of the area with a clear stretch running north from RDU to SBV. The instrument was experiencing some difficulties throughout its start up phase similar to the last flight and the research team continued to troubleshoot the issues as we pressed on course. We descended to 17,500 as requested by the researchers hoping it was condensation on the optical glass. The altitude change did not rectify the problem. They continued to troubleshoot and eventually rebooted the system. Meanwhile we cancelled IFR and flew VFR between RDU and SBV maintaining a flight path over area clear of lower clouds, eventually descending to 13,500. Finally the team decided there was nothing else they could do in flight and called for an early RTB. We completed an instrument approach back into LFI and landed at 10:48 L. This flight completed this phase of the DAWN flights. The research team confirmed that further trouble shooting would have to be done with the instrument in the lab and that there was nothing to be gained by leaving the instrument on the aircraft any longer. The research team will begin removal of the DAWN instrument from the aircraft later this week. The team has requested the potential to come back in the fall if a window of opportunity is available in the aircraft schedule, otherwise they already have a placeholder for March 2014.</p>		

Flight Hour Summary:

	13B012
Flight Hours Approved in SOFRS	25
Total Used	23.9
Total Remaining	1.1

13B012 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
06/12/13	DAWN 2013 ICF#1	Check	3.1	3.1	21.9	
06/14/13	DAWN 2013 R-1	Science	2.1	5.2	19.8	
06/21/13	DAWN 2013 R-2	Science	2	7.2	17.8	
06/24/13	DAWN 2013 R-3	Science	2.4	9.6	15.4	
06/26/13	DAWN 2013 R-4	Science	2.3	11.9	13.1	

06/28/13	DAWN 2013 R-5	Science	2.5	14.4	10.6
07/09/13	DAWN 2013 R-6	Science	3.2	17.6	7.4
07/10/13	DAWN 2013 R-7	Science	2	19.6	5.4
07/17/13	DAWN 2013 R-8	Science	2.3	21.9	3.1
07/23/13	DAWN 2013 R-9	Science	2	23.9	1.1

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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