

## B-200 (UC-12B) - LARC 06/08/21

**NOTE:** All flight reports will be archived as NASA public data in the DAAC.

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

**Flight Number:** Activate Flight 72/73 (Researcher #81/82) (Update each flight)

**Payload Configuration:** HSRL II/RSP

**Nav Data Collected:** No

**Total Flight Time:** 6.9 hours

**Submitted by:** Michael S. Wusk on 06/08/21

**Flight Segments:**

<b>From:</b>	KLFI	<b>To:</b>	KLFI
<b>Start:</b>	06/08/21 12:30 Z	<b>Finish:</b>	06/08/21 15:50 Z
<b>Flight Time:</b>	3.3 hours		
<b>Log Number:</b>	<a href="#">21B005</a>	<b>PI:</b>	Armin Sorooshian
<b>Funding Source:</b>	Hal Maring - NASA - SMD - ESD Radiation Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Miles Flown:</b>	720 miles		
<b>Comments:</b>	<p>Morning UC-12 event for a scheduled 2-event day; cooperative flight with the HU-25. Planned route: KLFI ATLIC ZIBUT TILED ZIBUT ATLIC KLFI. Takeoff from runway 26 immediately following HU-25 takeoff. Uneventful departure with north turn out to a climb on course direct ATLIC. Final cruising altitude was FL280 for the entire flight back to ATLIC. Initial ATC vectors for climbout, combined with a headwind at high altitude and a tailwind at low altitude, resulted in the UC-12 falling behind the HU-25 and being unable to catch up. Coincidence was maintained within 10 minutes, but was not optimal during outbound tracks. Further complicating coincidence was a convective build up approximately 40nm east of ZIBUT along the planned track. The UC-12 deviated north of track to circumnavigate, with a maximum lateral separation of 13nm north of desired ground track; cloud tops were above the performance envelope of the UC-12, estimated at ~ FL340, with a distinct anvil extending to the south of track that prevented a south deviation. UC-12 regained ground track approx.. 2/3 the distance from ZIBUT to TILED. HU-25 executed turn point approx.. 20 nm short of TILED; researchers confirmed desire for UC-12 to continue to same turn point then reverse—sacrificing opportunity to regain coincidence for gathering data on the same ground track as HU-25. Executed 30-deg bank angle reversal at turn point. On return leg to TILED, was able to maintain planned track—towering cumulus build ups had shifted northwards enough to maintain track. UC-12 did penetrate extended portion of anvil formation to maintain track. Commenced descent 12nm east of ATLIC for uneventful recovery at KLFI to runway 26. 4x dropsondes deployed: ZIBUT/Turn Point/half-way point back to ZIBUT/12nm east of ATLIC. Crew was Jamison, Wusk, Harper</p>		

<b>From:</b>	KLFI	<b>To:</b>	KLFI
<b>Start:</b>	06/08/21 17:27 Z	<b>Finish:</b>	06/08/21 21:03 Z
<b>Flight Time:</b>	3.6 hours		
<b>Log Number:</b>	<a href="#">21B005</a>	<b>PI:</b>	Armin Sorooshian
<b>Funding Source:</b>	Hal Maring - NASA - SMD - ESD Radiation Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Miles Flown:</b>	720 miles		
<b>Comments:</b>	<p>Second flight of a two flight day. ACTIVATE statistical research flight. The plan was from KLFI - ATLIC - ZIBUT - N3630/W07145 - N3645/W06915 and reverse. Flight deviated from plan in that a fuel management issue on the HU25 prevented going out to the turn point, but not soon after the reversal to come home early, they resolved the issue and aircraft reversed course to continue as far as it could on original plan. They turned short by about 50 nm. The UC12 was delayed getting ATC clearance to make the early turn and had to continue east for an extra 30 or so miles. The UC12 had some tailwind help on the return and gained ground to have good coincidence for much of the return. UC-12 aircraft performed nominally and is ready for the next mission. Crew was Coldsnow, Wusk, Seaman.</p>		

**Flight Hour Summary:**

						<b>21B005</b>
<b>Flight Hours Approved in SOFRS</b>						200
<b>Total Used</b>						180
<b>Total Remaining</b>						20
<b>21B005 Flight Reports</b>						
<b>Date</b>	<b>Flt #</b>	<b>Purpose of Flight</b>	<b>Duration</b>	<b>Running Total</b>	<b>Hours Remaining</b>	<b>Miles Flown</b>
<a href="#">01/20/21</a>	Activate Flight 33	Science	3	3	197	600
<a href="#">01/29/21</a>	Activate Flight 34	Science	3	6	194	700
<a href="#">02/03/21</a>	Activate Flight 35	Science	3.3	9.3	190.7	700
<a href="#">02/10/21</a>	Activate Flight 36	Science	3.7	13	187	670
<a href="#">02/20/21</a>	Activate Flight 37 (Researcher #46)	Science	3.3	16.3	183.7	600
<a href="#">02/21/21</a>	Activate Flight 38 (Researcher #47)	Science	4	20.3	179.7	650
<a href="#">03/04/21</a>	Activate Flight 39 (Researcher #48)	Science	3.1	23.4	176.6	620
<a href="#">03/05/21</a>	Activate Flight 40 (Researcher #49)	Science	3.5	26.9	173.1	706
<a href="#">03/05/21</a>	Activate Flight 41 (Researcher #50)	Science	3.3	30.2	169.8	650
<a href="#">03/08/21</a>	Activate Flight 42 (Researcher #51)	Science	3.3	33.5	166.5	680
<a href="#">03/09/21</a>	Activate Flight 43 (Researcher #52)	Science	3.4	36.9	163.1	708
<a href="#">03/12/21</a>	Activate Flight 44/45 (Researcher #53/54)	Science	3.4	40.3	159.7	700
<a href="#">03/12/21</a>	Activate Flight 44/45 (Researcher #53/54)	Science	3.5	43.8	156.2	700
<a href="#">03/20/21</a>	Activate Flight 46 (Researcher #55)	Science	3.4	47.2	152.8	705
<a href="#">03/23/21</a>	Activate Flight 47 (Researcher #56)	Science	4.1	51.3	148.7	704
<a href="#">03/29/21</a>	Activate Flight 48 (Researcher #57) (Update each flight)	Science	3.9	55.2	144.8	767
<a href="#">03/30/21</a>	Activate Flight 49 (Researcher #58) (Update each flight)	Science	3.4	58.6	141.4	712
<a href="#">03/30/21</a>	Activate Flight 50 (Researcher #59) (Update each flight)	Science	3.6	62.2	137.8	797
<a href="#">04/02/21</a>	Activate Flight 51 (Researcher #60) (Update each flight)	Science	2.6	64.8	135.2	710
<a href="#">04/02/21</a>	Activate Flight 51 (Researcher #61) (Update each flight)	Science	4.7	69.5	130.5	710
<a href="#">05/12/21</a>	Activate Flight 52 (Researcher ICF) (Update each flight)	Science	1.3	70.8	129.2	250
<a href="#">05/13/21</a>	Activate Flight 53 (Researcher #62) (Update each flight)	Science	3.7	74.5	125.5	0
<a href="#">05/14/21</a>	Activate Flight 54/55 (Researcher #63/64) (Update each flight)	Science	3.7	78.2	121.8	730
<a href="#">05/14/21</a>	Activate Flight 54/55 (Researcher #63/64) (Update each flight)	Science	3.5	81.7	118.3	720
<a href="#">05/15/21</a>	Activate Flight 56 (Researcher #65) (Update each flight)	Science	3.5	85.2	114.8	0

<a href="#">05/18/21</a>	Activate Flight 57 (Researcher #66) (Update each flight)	Science	3.6	88.8	111.2	720
<a href="#">05/19/21</a>	Activate Flight 58 (Researcher #67) (Update each flight)	Science	3.4	92.2	107.8	710
<a href="#">05/19/21</a>	Activate Flight 59 (Researcher #68) (Update each flight)	Science	3.4	95.6	104.4	720
<a href="#">05/20/21</a>	Activate Flight 60 (Researcher #69) (Update each flight)	Science	3.8	99.4	100.6	710
<a href="#">05/21/21</a>	Activate Flight 61 (Researcher #70) (Update each flight)	Science	3.6	103	97	750
<a href="#">05/21/21</a>	Activate Flight 62 (Researcher #71) (Update each flight)	Science	3.3	106.3	93.7	710
<a href="#">05/25/21</a>	Activate Flight 63 (Researcher #72) (Update each flight)	Science	3.4	109.7	90.3	713
<a href="#">05/26/21</a>	Activate Flight 64/65 (Researcher #73/74) (Update each flight)	Science	3.3	113	87	700
<a href="#">05/26/21</a>	Activate Flight 64/65 (Researcher #73/74) (Update each flight)	Science	3.3	116.3	83.7	722
<a href="#">06/01/21</a>	Activate Flight 66 (Researcher #75) (Update each flight)	Science	3.6	119.9	80.1	710
<a href="#">06/02/21</a>	Activate Flight 67/68 (Researcher #76/77) (Update each flight)	Science	3.4	123.3	76.7	0
<a href="#">06/02/21</a>	Activate Flight 67/68 (Researcher #76/77) (Update each flight)	Science	3.1	126.4	73.6	0
<a href="#">06/05/21</a>	Activate Flight 69 (Researcher #78) (Update each flight)	Science	3.4	129.8	70.2	726
<a href="#">06/07/21</a>	Activate Flight 70/71 (Researcher #79/80) (Update each flight)	Science	3.5	133.3	66.7	720
<a href="#">06/07/21</a>	Activate Flight 70/71 (Researcher #79/80) (Update each flight)	Science	2.9	136.2	63.8	690
<a href="#">06/08/21</a>	Activate Flight 72/73 (Researcher #81/82) (Update each flight)	Science	3.3	139.5	60.5	720
<a href="#">06/08/21</a>	Activate Flight 72/73 (Researcher #81/82) (Update each flight)	Science	3.6	143.1	56.9	720
<a href="#">06/15/21</a>	Activate Flight 74 (Researcher #83) (Update each flight)	Science	3.2	146.3	53.7	680
<a href="#">06/16/21</a>	Activate Flight 75 (Researcher #84) (Update each flight)	Science	3.7	150	50	690
<a href="#">06/17/21</a>	Activate Flight 76 (Researcher #85) (Update each flight)	Science	3	153	47	600
<a href="#">06/22/21</a>	Activate Flight 77 (Researcher #86) (Update each flight)	Science	3.3	156.3	43.7	690
<a href="#">06/24/21</a>	Activate Flight 78 (Researcher #87) (Update each flight)	Science	3.5	159.8	40.2	690
<a href="#">06/26/21</a>	Activate Flight 79/80 (Researcher #88/89) (Update each flight)	Science	3.4	163.2	36.8	690
<a href="#">06/26/21</a>	Activate Flight 79/80 (Researcher #88/89) (Update each flight)	Science	3.4	166.6	33.4	680
<a href="#">06/28/21</a>	Activate Flight 81 (Researcher #90) (Update each flight)	Science	3.3	169.9	30.1	690

<a href="#">06/29/21</a>	Activate Flight 82 (Researcher #91) (Update each flight)	Science	3.3	173.2	26.8	687
<a href="#">06/30/21</a>	Activate Flight 83/84 (Researcher #92/93) (Update each flight)	Science	3.4	176.6	23.4	685
<a href="#">06/30/21</a>	Activate Flight 83/84 (Researcher #92/93) (Update each flight)	Science	3.4	180	20	680

*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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