

Afrisar - B200 - LARC 02/20/16 Science Report

Aircraft: [B200 - LARC](#) (See full schedule)

Date: Saturday, February 20, 2016

Mission: Afrisar

Mission Location: Gabon

Mission Summary:

LVIS-Afrisar Science Flight 01 - IRD

First LVIS flight in Gabon landed today around 3:45pm local time after just under 4.5hours of flying.

The flight included 9 lines at IRD (one of our core target sites for mapping by the LVIS, UAVSAR and DLR teams) plus 2 crossing lines to map a ~70 by 10km area, along with 2 ramp passes for calibration.

As our first flight, we'd primarily intended to use it to get a feel for any unknowns (power, flight line filing, ramp restrictions etc) and originally planned a relatively straightforward flight along a portion of the TandemX and Gedi orbit crossovers.

However after looking at satellite imagery this morning, we decided to switch it up and go for IRD only and avoid thunderstorms along/near the TandemX line (thank you to Rick and Alan for their time in the cockpit/oven entering way points before taking off...).

David and Bryan flew today in the plane today. At IRD, puffy clouds and haze were present, and we estimate roughly 70% of the lines were covered.

LVIS lessons learned today.... the weather here is tough to predict; plane endurance is likely going to be slightly less than planned; and we may have to fly slightly lower to combat haze.

With respect to IRD coverage, we'll process the data overnight and assess what we need to do to complete objectives.

However, a really good first flight today - thank you everyone!

Michelle

Submitted by: Michelle Hofton on 02/20/16

Related Flight Report:

B200 - LARC 02/20/16

Flight Number: LVIS on B200 #13

Payload Configuration: AfriSAR 2016-LVIS

Nav Data Collected: Yes

Total Flight Time: 4.3 hours

Submitted by: Richard Yasky on 02/26/16

Flight Segments:

From:	FOOL	To:	FOOL
Start:	02/20/16 10:20 Z	Finish:	02/20/16 14:40 Z
Flight Time:	4.3 hours		
Log Number:	16B006	PI:	Christy Hansen
Funding Source:	Kathleen Hibbard - NASA - SMD - ESD Terrestrial Ecology		
Purpose of Flight:	Science		
Comments:	First research fligh for AfriSAR in Gabon. COnducted dense mapping of IRD box just south of Lambarene including 10 lines and two transects. Due to haze and humidity effect on LVIS as well as aircraft performance the flight lines were flown at FL240. Crew estimated coverage due to low cumulus clouds at 70 percent. Captured a Pongara area transect on return to Libreville as well as a roll and pitch manuever over water and a marginally successful ramp pass due to arrival geometries and prohibited areas.		

Flight Hour Summary:

16B006

Flight Hours Approved in SOFRS	106.5
Total Used	106.5
Total Remaining	0

16B006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
02/02/16	LVIS on B200	Check	1.7	1.7	104.8	
02/05/16	LVIS on B200 #2	Science	1.9	3.6	102.9	
02/12/16	LVIS on B200 #3	Ferry	2.6	6.2	100.3	
02/12/16	LVIS on B200 #4	Ferry	2	8.2	98.3	
02/13/16	LVIS on B200 #5	Ferry	3.1	11.3	95.2	
02/13/16	LVIS on B200 #6	Ferry	3.1	14.4	92.1	
02/14/16	LVIS on B200 #7	Ferry	3.5	17.9	88.6	
02/14/16	LVIS on B200 #8	Ferry	3.5	21.4	85.1	
02/16/16	LVIS on B200 #9	Ferry	2.7	24.1	82.4	
02/16/16	LVIS on B200 #10	Ferry	3.6	27.7	78.8	
02/17/16	LVIS on B200 #11	Ferry	4.5	32.2	74.3	
02/17/16	LVIS on B200 #12	Ferry	3.8	36	70.5	
02/20/16	LVIS on B200 #13	Science	4.3	40.3	66.2	
02/22/16	LVIS on B200 #14	Science	3.7	44	62.5	
02/23/16	LVIS on B200 #15	Science	3.2	47.2	59.3	
02/25/16	LVIS on B200 #16	Science	0.4	47.6	58.9	
03/02/16	LVIS on B200 #17	Science	4.4	52	54.5	
03/03/16	LVIS on B200 #18	Science	4.2	56.2	50.3	
03/04/16	LVIS on B200 #19	Science	3.7	59.9	46.6	
03/07/16	LVIS on B200 #20	Science	4.4	64.3	42.2	
03/08/16	LVIS on B200 #21	Science	4.1	68.4	38.1	
03/10/16	LVIS on B200 #22	Ferry	3.9	72.3	34.2	
03/10/16	LVIS on B200 #23	Ferry	5	77.3	29.2	
03/11/16	LVIS on B200 #24	Ferry	4.4	81.7	24.8	
03/11/16	LVIS on B200 #25	Ferry	3.3	85	21.5	

03/12/16	LVIS on B200 #26	Ferry	4.7	89.7	16.8
03/12/16	LVIS on B200 #27	Ferry	4	93.7	12.8
03/14/16	LVIS on B200 #28	Ferry	4.1	97.8	8.7
03/14/16	LVIS on B200 #29	Ferry	2.8	100.6	5.9
03/15/16	LVIS on B200 #30	Ferry	4.1	104.7	1.8
03/15/16	LVIS on B200 #31	Ferry	1.8	106.5	0

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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