

OIB - DC-8 10/20/16 Science Report

Aircraft: [DC-8 - AFRC](#) (See full schedule)

Date: Thursday, October 20, 2016

Mission: OIB

Mission Location: Antarctica

Mission Summary:

IceBridge flew the high priority Getz A mission to collect dh/dt measurements over the Getz Ice Shelf and grounded ice just inland. This mission overflowed a line flown in 2012 (the inland line) and also a new line on the outer portion of the ice shelf. In addition, this mission captured two new lines over the upper catchment of Smith and Kohler Glaciers, spaced at 80 km apart. Clouds and blowing snow were present along the eastern edges of the two catchment lines causing the loss of some ATM data, though gravity and the radars were not affected. As predicted in the forecast models, the two lines over the Getz Ice Shelf were clear on the eastern edge of the survey lines but became cloudy on the last ~100 miles of the line causing the loss of some lidar data in the thick parts of the clouds. Total ATM data collection was estimated at ~80% for the day making for an overall successful flight.

ATM had an issue with their Applanix unit a few hours after take-off and may not have collected useful attitude data, the DMS system will be used as a backup. A ramp pass was also obtained which was the first for DMS after the primary camera system swap.

Data volumes

ATM: T5: 23 Gb T6: 29 Gb

FLIR: 8.5 Gb

Cambot: 7.5 Gb

DMS: 40.4 Gb

Snow/Ku radars: 341 Gb for each

MCoRDS: 1.4 Tb

AIRGrav: 5 Gb

data on 1718

data off 2107

Submitted by: Nathan T. Kurtz on 10/20/16

File:

 [flight_map.pdf](#)

Related Flight Report:

DC-8 10/20/16 - 10/21/16

Flight Number: 1143

Payload Configuration: OIB-ATM NAV/ATM GPS/ATM-T5/T6/ATM FLIR/ATM CAMBOT MCoRDS/SNOW/Ku RADAR DMS/POS-AV GRAVIMETER

Nav Data Collected: Yes

Total Flight Time: 11.4 hours

Submitted by: Chris Jennison on 10/27/16

Flight Segments:

From:	SCCI	To:	SCCI
Start:	10/20/16 13:02 Z	Finish:	10/21/16 00:30 Z
Flight Time:	11.4 hours		
Log Number:	178010	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	This was a Land ice GETZ A flight. ATM suffered a Planix attitude reference failure. All other instruments performed well.		

Flight Hour Summary:

	178010
Flight Hours Approved in SOFRS	300

Total Used 306.9

Total Remaining -6.9

178010 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
10/04/16	1135	Science	4	4	296	
10/05/16	1136	Science	2.7	6.7	293.3	
10/12/16	1138	Transit	10.9	17.6	282.4	
10/12/16	1139	Transit	3	20.6	279.4	
10/14/16 - 10/15/16	1140	Science	10.9	31.5	268.5	
10/15/16 - 10/16/16	1141	Science	11.8	43.3	256.7	
10/17/16 - 10/18/16	1142	Science	11.8	55.1	244.9	
10/20/16 - 10/21/16	1143	Science	11.4	66.5	233.5	
10/22/16	1144	Science	11	77.5	222.5	
10/24/16 - 10/25/16	1145	Science	11.5	89	211	
10/25/16 - 10/26/16	1146	Science	11.3	100.3	199.7	
10/26/16 - 10/27/16	1147	Science	12.1	112.4	187.6	
10/27/16 - 10/28/16	1148	Science	11.5	123.9	176.1	
10/28/16 - 10/29/16	1149	Science	11	134.9	165.1	
10/31/16 - 11/01/16	1150	Science	11	145.9	154.1	
11/02/16 - 11/03/16	1151	Science	11.2	157.1	142.9	
11/03/16 - 11/04/16	1152	Science	11.5	168.6	131.4	
11/04/16 - 11/05/16	1153	Science	11.1	179.7	120.3	
11/05/16 - 11/06/16	1154	Science	11.7	191.4	108.6	
11/07/16 - 11/08/16	1155	Science	11.2	202.6	97.4	
11/09/16 - 11/10/16	1156	Science	11.7	214.3	85.7	
11/10/16	1157	Science	10.9	225.2	74.8	
11/11/16 - 11/12/16	1158	Science	11.3	236.5	63.5	
11/12/16 - 11/13/16	1159	Science	11.1	247.6	52.4	
11/14/16	1160	Science	10.9	258.5	41.5	
11/15/16 - 11/16/16	1161	Science	11.6	270.1	29.9	
11/17/16 - 11/18/16	1162	Science	11.1	281.2	18.8	
11/18/16 - 11/19/16	1163	Science	11.1	292.3	7.7	
11/21/16	1165	Transit	11.6	303.9	-3.9	

[11/21/16](#)

1164

Transit

3

306.9

-6.9

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.

Page Last Updated: April 22, 2017

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