

DC-8 11/02/16 - 11/03/16

Aircraft:

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

Flight Number:

1151

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:

11.2 hours

Submitted by:

Timothy Moes on 11/05/16

Flight Segments:

From:	SCCI	To:	SCCI
Start:	11/02/16 13:02 Z	Finish:	11/03/16 00:15 Z
Flight Time:	11.2 hours		
Log Number:	178010	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Good flight. The aircraft came back in good condition. Science objective was a new mission, one of a suite of five missions designed to map the coastal region encompassing the Hull and Land glaciers and surrounding areas to the west of the Getz Ice Shelf. All science instruments had a good flight. MCoRDS had some issues, but got good data most of the flight. MiniRADS "best day ever" and this was their last flight. At start of the flight, an SCCI ramp overpass was flown at 1200 ft AGL.		

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.

Related Science Report:

OIB - DC-8 11/02/16 Science Report

Mission:

OIB

Mission Summary:

Mission: Hull-Land 03 (priority: medium)

This is a new mission, one of a suite of five missions designed to map the coastal region encompassing the Hull and Land glaciers and surrounding areas to the west of the Getz Ice Shelf. The twofold purpose is to map the bathymetry and basal topography using the gravimeter and MCoRDS radar, and at the same time to establish surface topography measurements for dh/dt. This particular flight occupies the center of the area of study of the five planned flights. We also overfly LVIS grid lines in the Getz area during transits at high altitude, to obtain high-altitude data on an opportunistic basis.

Weather today was finally, but gradually, improving over our baseline-priority science targets in the vicinity of Pine Island and Thwaites Glaciers. The weather over the northern Peninsula area today also had improved significantly. However in our judgment these areas were still not sufficiently clear to risk a mission, so we selected the Ruppert Coast for yet another flight, since it was almost entirely clear. We expect further clearing over the higher-priority areas late this week. We encountered perfect weather over the entire Ruppert Coast segment of the missions, significant clouds below us on the westbound Getz (high-altitude) line, and mostly clear

skies on the eastbound Getz (high-altitude) line.

Science instruments performed nominally, with the exception of the MCoRDS which apparently lost 18 minutes of data during the Ruppert Coast lines, due to intermittent digital connectivity between the instrument and its data management system.

We conducted a ramp pass at 1200' on departure.

Data volumes:

AIRGrav: 5 Gb

ATM: 16 Gb

CAMBOT: 22 Gb

DMS: 35 Gb

FLIR: 4/x Gb

Ku-Band Radar: 200 Gb

MCoRDS: 1 Tb (18 mins lost, digital connectivity issue)

Narrow Swath ATM: 19 Gb

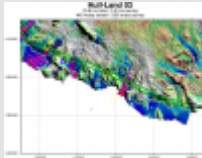
Snow Radar: 200 Gb

MiniRad: 600 Mb

total data collection time: 3.0 hrs

Images:

Map of Hull-Land 03



[Read more](#)

Bluff with icefalls



[Read more](#)

Mount Berlin



[Read more](#)

Submitted by:

John Sonntag on 11/11/16

NASA Official: Marilyn Vasques

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