DC-8 11/04/12

Aircraft: DC-8 - AFRC (See full schedule)
Flight Number: 130118
Payload Configuration: OIB Antarctic 2012
Nav Data Collected: Yes
Total Flight Time: 11 hours
Submitted by: Frank Cutler on 11/04/12
Flight Segments:

From:	SCCI	**To:**	SCCI
Start:	11/04/12 12:00 Z	**Finish:**	11/04/12 22:58 Z
Flight Time:	11 hours		
Log Number:	138003	**PI:**	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Depart SCCI at 1200Z. Perform calibration ramp pass from SE to NW at 1000ft AGL at 1211Z. Climb to cruise altitude block of FL310 to FL350. Cross first low altitude science waypoint at 1539Z at 1500 ft. Fly ground track pattern of six parallel chevron patterns on NE side of PIG completing this area at 1708Z. Cross PIG to SW side and start low altitude survey at 1722Z. Six tracks oriented in a fan shape were flown. Perform radar pitch maneuvers at 2000 ft AGL at 1726Z. After completing low altitude survey in SW area then fly circuitous track to cross SW & NE ground track lines. Pass over final low altitude waypoint at 1944Z. Climb to FL400 for transit to Punta Arenas. High altitude ATM data collected during transit segments. Perform second calibration ramp pass from SE to NW at 2000ft AGL at 2247Z. Land SCCI at 2258Z.		

Flight Hour Summary:

	138003
Flight Hours Approved in SOFRS	200
Total Used	215.7
Total Remaining	-15.7

138003 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
10/02/12	130101	Check	5	5	195	
10/03/12	130102	Check	3.2	8.2	191.8	
10/08/12 - 10/09/12	130103	Transit	10.7	18.9	181.1	
10/10/12	130104	Transit	3.2	22.1	177.9	
10/12/12	130105	Science	11.2	33.3	166.7	
10/13/12 - 10/14/12	130106	Science	10.9	44.2	155.8	
10/15/12	130107	Science	11.6	55.8	144.2	
10/16/12 - 10/17/12	130108	Science	11.8	67.6	132.4	
10/18/12	130109	Science	11.6	79.2	120.8	
10/19/12 - 10/20/12	130110	Science	10.2	89.4	110.6	
10/22/12	130111	Science	11.2	100.6	99.4	
10/23/12 - 10/24/12	130112	Science	11.3	111.9	88.1	
10/25/12	130113	Science	11.4	123.3	76.7	
10/27/12	130114	Science	11.4	134.7	65.3	
10/28/12 - 10/29/12	130115	Science	11.3	146	54	

11/01/12 - 11/02/12	130116	Science	12	158	42
11/02/12 - 11/03/12	130117	Science	10.6	168.6	31.4
11/04/12	130118	Science	11	179.6	20.4
11/06/12 - 11/07/12	130119	Science	9.4	189	11
11/07/12 - 11/08/12	130120	Science	11.5	200.5	-0.5
11/09/12	130121	Transit	3.3	203.8	-3.8
11/10/12 - 11/11/12	130122	Transit	11.6	215.4	-15.4
11/11/12	130123	Transit	0.3	215.7	-15.7

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 11/04/12 Science Report

Mission: OIB
Mission Summary:

F14 Pine Island Glacier Flank #01

Accomplishments

- Low-altitude survey (1,500 ft AGL) over the northern and southern flank of Pine Island Glacier.
- Completed all planned survey lines.
- Collected additional high altitude ATM and DMS data transits.
- Conducted pitch maneuvers for time stamp verification of snow and Ku-band radars.
- Conducted two ramp passes at Punta Arenas airport for instrument calibration.
- ATM, MCoRDS, snow and Ku-band radars, gravimeter, and DMS were operated on the survey lines.
- Satellite Tracks: none
- Repeat Mission: none

Science Data Report Summary

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	47 GB	None
DMS	yes	91 GB	None. Recorded 11,900 frames.
Snow Radar	yes	458 GB	None
Ku-band Radar	yes	458GB	None
MCoRDS	yes	673 GB	None
KT-19	yes	20 MB	None
Gravimeter	yes	1.1 GB	None
DC-8 On-board Data	yes	40 MB	None

Mission Report (Michael Studinger, Mission Scientist)

Our primary target this morning was again a sea ice mission over the Weddell Sea but the predicted conditions clearly prevented data collection in the region. The Pine Island Glacier area was clear and we were able to fly a successful mission under a layer of scattered high clouds. We experienced up to 40 knot winds in the area which cause occasional light turbulence and a significant amount of
wind-blown snow on the surface (Fig. 2).

We flew a ramp pass at 1,000 ft AGL after takeoff and another one at 2,000 ft AGL before landing. It was a

perfect flight.

ATM data collection	Time (UTC)	Hours
Begin low altitude data collection	15:32	
End low altitude data collection	19:44	4.2
Various high altitude segments		1.6
Total		5.8

Images:

Trajectory map of today’s science mission

Read more

Wind-blown snow at the calving front of Pine Island Glacier

Read more

Submitted by: Michael Studinger on 11/04/12

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