

DC-8 10/25/12

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

Flight Number: 130113

Payload Configuration: OIB Antarctic 2012

Nav Data Collected: Yes

Total Flight Time: 11.4 hours

Submitted by: Frank Cutler on 10/25/12

Flight Segments:

From:	SCCI	To:	SCCI
Start:	10/25/12 12:29 Z	Finish:	10/25/12 23:53 Z
Flight Time:	11.4 hours		
Log Number:	138003	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	<p>Depart SCCI at 1229Z. Perform calibration ramp pass to the SE and overfly targets at 1235Z at 1500 ft AGL. Climb to cruise altitudes of FL310 & FL330. Descend to 1500 ft for initial part of low altitude data route for mission. Cross first science waypoint at 1532Z in the vicinity of Wirth Peninsula. Climb to 2000 ft AGL due to turbulence at 1612Z and complete remainder of low altitude route at that altitude. Six parallel ground tracks in roughly east/west direction flown covering the length of the glacier area. Complete mapping at 2056Z. Perform radar instrument calibration pitch maneuvers at 2056Z, 200 ft AGL, and then climb to FL390 for transit to Punta Arenas. Xchat with school children in class rooms across USA during mission. U.S. Ambassador to Chile, Alex Wolff, flew with us. Land SCCI at 2353Z.</p>		

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 10/25/12 Science Report

Mission: OIB

Mission Summary:

F09 Ferrigno Alison 01

Accomplishments

- Low-altitude survey (2,000 ft AGL) in the Ferrigno and Alison Ice Stream area.
- Completed all planned survey lines.
- Collected additional high altitude ATM and DMS data over sea ice in the Bellingshausen Sea during transits.
- Conducted pitch maneuvers for time stamp verification of snow and Ku-band radars.
- Conducted ramp pass (1,500 ft AGL) at Punta Arenas airport after takeoff for DMS, ATM, snow and Ku-band radar instrument calibration.
- ATM, MCoRDS, snow and Ku-band radars, gravimeter, and DMS were operated on the survey lines.
- Hosted several question and answer sessions on x-chat during the flight with students and teachers from the US. We're up to 495 students and 33 teachers total on this deployment.
- Satellite Tracks: none
- Repeat Mission: none

Science Data Report Summary

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	57 GB	None. Windblown snow.
DMS	yes	95 GB	None. Collected 14,194 frames.
Snow Radar	yes	594 GB	Glitch in GPS time stamps that can be fixed.
Ku-band Radar	yes	594 GB	Glitch in GPS time stamps that can be fixed.
MCoRDS	yes	800 GB	None
KT-19	yes	20 MB	None
Gravimeter	yes	1.3 GB	None
DC-8 On-board Data	yes	40 MB	None

Mission Report (Michael Studinger, Mission Scientist)

Today, we flew 6 grid lines spaced 10 km apart along the coast covering the Ferrigno and Alison Ice Streams. The weather in the area was perfect. We slightly adjusted our flight elevation from 1,500 ft AGL to 2,000 ft AGL to make for a smoother ride in the east of the survey area. This part of the grid experienced winds between 20

and 30 kts, causing significant amounts of wind-blown snow on the surface. The wind-blown snow did reduce the return signal strength of the ATM lasers, but the lasers were able to see the ice surface without problem.

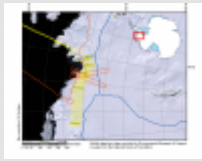
We flew a ramp pass at Punta Arenas airport at 1,500 ft AGL after takeoff to ensure data collection during daylight for DMS and ATM instrument calibration.

We hosted again several question and answer sessions on x-chat during the flight with students and teachers from across the United States.

ATM data collection	Time (UTC)	Hours
Begin high altitude data collection	15:01	
Begin low altitude data collection	15:30	
End low altitude data collection	20:58	
End high altitude data collection	21:38	
Total		6.6

Images:

Trajectory map of today's science mission



[Read more](#)

Submitted by: Michael Studinger on 10/26/12

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