

## DC-8 10/28/12 - 10/29/12

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

Flight Number: 130115

Payload Configuration: OIB Antarctic 2012

Nav Data Collected: Yes

Total Flight Time: 11.3 hours

Submitted by: Frank Cutler on 10/29/12

### Flight Segments:

<b>From:</b>	SCCI	<b>To:</b>	SCCI
<b>Start:</b>	10/28/12 13:57 Z	<b>Finish:</b>	10/29/12 01:15 Z
<b>Flight Time:</b>	11.3 hours		
<b>Log Number:</b>	<a href="#">138003</a>	<b>PI:</b>	Michael Studinger
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	Depart SCCI at 1357Z. Perform calibration ramp pass to the SE and overfly targets at 1404Z at 2000 ft AGL. Climb to cruise altitudes of FL310 and FL330. Start gravity line data collection over the Ronne Ice Shelf at 1713Z at FL330. Descend to 1500 ft for initial part of low altitude data route for mission. Cross first science waypoint at 1837Z over Foundation Ice Stream area. Six parallel ground tracks in roughly east/west direction flown. Perform radar instrument calibration pitch maneuvers at 1851Z, 2000 ft AGL. Complete mapping at 2053Z and then climb to FL400 for transit to Punta Arenas. Land SCCI at 0115Z.		

### Flight Hour Summary:

	<b>138003</b>
<b>Flight Hours Approved in SOFRS</b>	200
<b>Total Used</b>	215.7
<b>Total Remaining</b>	-15.7

### 138003 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">10/02/12</a>	130101	Check	5	5	195	
<a href="#">10/03/12</a>	130102	Check	3.2	8.2	191.8	
<a href="#">10/08/12 - 10/09/12</a>	130103	Transit	10.7	18.9	181.1	
<a href="#">10/10/12</a>	130104	Transit	3.2	22.1	177.9	
<a href="#">10/12/12</a>	130105	Science	11.2	33.3	166.7	
<a href="#">10/13/12 - 10/14/12</a>	130106	Science	10.9	44.2	155.8	
<a href="#">10/15/12</a>	130107	Science	11.6	55.8	144.2	
<a href="#">10/16/12 - 10/17/12</a>	130108	Science	11.8	67.6	132.4	
<a href="#">10/18/12</a>	130109	Science	11.6	79.2	120.8	
<a href="#">10/19/12 - 10/20/12</a>	130110	Science	10.2	89.4	110.6	
<a href="#">10/22/12</a>	130111	Science	11.2	100.6	99.4	
<a href="#">10/23/12 - 10/24/12</a>	130112	Science	11.3	111.9	88.1	
<a href="#">10/25/12</a>	130113	Science	11.4	123.3	76.7	
<a href="#">10/27/12</a>	130114	Science	11.4	134.7	65.3	
<a href="#">10/28/12 - 10/29/12</a>	130115	Science	11.3	146	54	
<a href="#">11/01/12 - 11/02/12</a>	130116	Science	12	158	42	

<a href="#">11/02/12 - 11/03/12</a>	130117	Science	10.6	168.6	31.4
<a href="#">11/04/12</a>	130118	Science	11	179.6	20.4
<a href="#">11/06/12 - 11/07/12</a>	130119	Science	9.4	189	11
<a href="#">11/07/12 - 11/08/12</a>	130120	Science	11.5	200.5	-0.5
<a href="#">11/09/12</a>	130121	Transit	3.3	203.8	-3.8
<a href="#">11/10/12 - 11/11/12</a>	130122	Transit	11.6	215.4	-15.4
<a href="#">11/11/12</a>	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 10/28/12 Science Report

**Mission:** OIB

**Mission Summary:**

### F11 Foundation Ice Stream - Support Force Glacier #01

#### Accomplishments

- Low-altitude survey (1,500 ft AGL) over the grounding line area of the Foundation Ice Stream.
- Completed all planned survey lines.
- Collected additional high altitude ATM and DMS data over sea ice in the Bellingshausen Sea during transits.
- Collected high-altitude gravity data over the Ronne Ice Shelf.
- Conducted pitch maneuvers for time stamp verification of snow and Ku-band radars.
- Conducted ramp pass (2,000 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.
- Satellite Tracks: none
- Repeat Mission: none

#### Science Data Report Summary

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	38 GB	None.
DMS	yes	54 GB	None. Collected 6,284 frames.
Snow Radar	yes	594 GB	None.
Ku-band Radar	yes	594 GB	None.
MCoRDS	yes	800 GB	None.
KT-19	yes	20 MB	None
Gravimeter	yes	1.2 GB	None.
DC-8 On-board Data	yes	40 MB	None.

#### Mission Report (Michael Studinger, Mission Scientist)

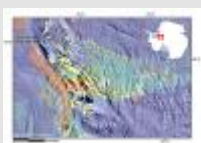
Today we flew 6 grid lines spaced 20 km apart over the grounding line area of the Foundation Ice Stream. The weather conditions in the Weddell Sea forced us again to fly a land ice mission, but at least we were able to choose a high priority mission with regional high priority. The weather in the Foundation Ice Stream area was perfect. We only experienced some occasional moderate to light turbulence. We collected an additional 2.9 hours of high altitude data with ATM and DMS on the transits with beautiful and rare views of the Antarctica Peninsula.

We flew a ramp pass at Punta Arenas airport at 2,000 ft AGL after takeoff to ensure data collection during daylight for DMS and ATM instrument calibration.

ATM data collection	Time (UTC)	Hours
Begin low altitude data collection	18:30	
End low altitude data collection	20:53	2.4
Various high altitude segments		2.9
Total		5.3

**Images:**

### Trajectory map of today's science mission



[Read more](#)

### View of the Antarctic Peninsula from high altitude



[Read more](#)

### View of the Pensacola Mountains



[Read more](#)

### View of the Pensacola Mountains



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**Submitted by:** Michael Studinger on 10/28/12

Page Editor: Katja Drdla

NASA Official: Marilyn Vasques

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