

## DC-8 11/06/12 - 11/07/12

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

Flight Number: 130119

Payload Configuration: OIB Antarctic 2012

Nav Data Collected: Yes

Total Flight Time: 9.4 hours

Submitted by: Frank Cutler on 11/07/12

### Flight Segments:

<b>From:</b>	SCCI	<b>To:</b>	SCCI
<b>Start:</b>	11/06/12 16:59 Z	<b>Finish:</b>	11/07/12 02:20 Z
<b>Flight Time:</b>	9.4 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>	<p>Depart SCCI at 1659Z. No calibration ramp pass conducted due to weather. Climb to cruise altitude block of FL310 to FL350. Cross first low altitude science waypoint at 1916Z at 1500 ft. Fly rectangular ground track pattern over Weddell sea ice. Cross second low altitude waypoint at 2105Z, third waypoint at 2200Z, and fourth waypoint at 2338Z. low altitude route flown at various altitudes from 700 ft to 1500 ft AGL depending on weather. Perform radar calibration pitch maneuver at 2000 ft AGL at 2340Z. Climb to FL350 to FL400 altitude block for transit to Punta Arenas. Perform calibration ramp pass on return to Punta Arenas from SE to NW at 1500ft AGL at 0206Z. XChat with school children in classrooms across the U.S. and two Chilean schools. Land SCCI at 0220Z.</p>		

### 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 11/06/12 Science Report

**Mission:** OIB

**Mission Summary:**

#### F15 Weddell Sea - Twisted

##### Accomplishments

- Low-altitude survey (1,500 ft AGL) over sea ice in the Weddell Sea.
- Completed all planned survey lines.
- ATM, snow and Ku-band radars, gravimeter, and DMS were operated on the survey lines.
- MCoRDS collected high altitude data over the Antarctic Peninsula.
- Collected additional ATM and DMS high-altitude data on transit lines.
- Conducted pitch maneuvers for time stamp verification of snow and Ku-band radars.
- Conducted one ramp pass (1,500 ft AGL) at Punta Arenas airport before landing for ATM, snow and Ku-band radar instrument calibration.
- Hosted a question and answer session on x-chat during the flight with students and teachers from New Mexico, Kansas, New Hampshire and Punta Arenas. We reached a total of 68 middle and high school students.
- Satellite Tracks: none
- Repeat Mission: October 18, 2011

##### Science Data Report Summary

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	54 GB	None
DMS	yes	111 GB	None. Collected 17,700 frames
Snow Radar	yes	487 GB	None
Ku-band Radar	yes	487 GB	None
MCoRDS	yes	56 GB	MCoRDS collected high-altitude data over the Antarctic Peninsula
KT-19	yes	20 MB	None
Gravimeter	yes	1.0 GB	None
DC-8 On-board Data	yes	40 MB	None

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

Today, the mission "Twisted" was our best choice in the Weddell Sea. We had some sunny parts, but mostly

flew below a cloud deck often changing altitude to maintain visibility down to the surface for the optical instruments. We were able to collect data along the entire survey line without any significant data loss due to clouds.

The known wildlife colonies along the transit route were at safe vertical separation from the flight path of the DC-8.

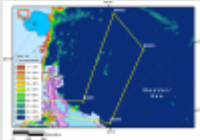
The low ceiling and rain showers prevented a ramp pass after takeoff, but we were able to fly a 1,500 ft ramp pass in darkness before landing for ATM instrument calibration.

We hosted another question and answer session on x-chat during the flight with students and teachers from New Mexico, Kansas, New Hampshire and Punta Arenas. We reached a total of 68 middle and high school students.

ATM laser altimetry data collection	Time (UTC)	Hours
Begin low altitude data collection	19:16	
End low altitude data collection	23:42	4.4
Various high altitude segments		0.5
Total		4.9

**Images:**

### Trajectory map of today's science mission



[Read more](#)

**Submitted by:** Michael Studinger on 11/07/12

Page Last Updated: April 22, 2017

Page Editor: Katja Drdla

NASA Official: Marilyn Vasques

---

**Source URL:** [https://espoarchive.nasa.gov/flight\\_reports/DC-8\\_11\\_06\\_12\\_-\\_11\\_07\\_12#comment-0](https://espoarchive.nasa.gov/flight_reports/DC-8_11_06_12_-_11_07_12#comment-0)