

## DC-8 - AFRC 11/03/18 - 11/04/18

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

Flight Number: 1305

Payload Configuration: OIB 2018 Configuration - ATM-Cambot, ATM-GPS/ATM-NAV, ATM-FLIR, ATM-T6, ATM-T7, Gravimeter, MCoR Snow RADAR, and piggybacks ARMAS & Tinman

Nav Data Collected: Yes

Total Flight Time: 11 hours

Submitted by: Timothy Moes on 11/04/18

### Flight Segments:

<b>From:</b>	SAWH - Ushuaia	<b>To:</b>	SAWH
<b>Start:</b>	11/03/18 13:07 Z	<b>Finish:</b>	11/04/18 00:06 Z
<b>Flight Time:</b>	11 hours		
<b>Log Number:</b>	<a href="#">198006</a>	<b>PI:</b>	Joseph MacGregor
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	A successful science flight completing the Amery Sector of the Hamilton Line at 88 deg S Latitude. After completion of the line, the DC-8 overflew the South Pole station while climbing to cruise altitude for the return home All science instruments successfully obtained data and the aircraft returned in good condition with no writeups.		

### Flight Hour Summary:

	<b>198006</b>
<b>Flight Hours Approved in SOFRS</b>	345.8
<b>Total Used</b>	292.8
<b>Total Remaining</b>	53

### 198006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">10/02/18</a>	1287	Check	2.6	2.6	343.2	0
<a href="#">10/08/18</a>	1289	Transit	10.1	12.7	333.1	0
<a href="#">10/08/18</a>	1290	Transit	2.8	15.5	330.3	0
<a href="#">10/10/18 - 10/11/18</a>	1291	Science	11.5	27	318.8	0
<a href="#">10/11/18 - 10/12/18</a>	1292	Science	11.6	38.6	307.2	0
<a href="#">10/12/18 - 10/13/18</a>	1293	Science	11.3	49.9	295.9	0
<a href="#">10/13/18 - 10/14/18</a>	1294	Science	10.7	60.6	285.2	0
<a href="#">10/15/18 - 10/16/18</a>	1295	Science	11.1	71.7	274.1	0
<a href="#">10/16/18 - 10/17/18</a>	1296	Science	10.1	81.8	264	0
<a href="#">10/18/18 - 10/19/18</a>	1297	Science	11.1	92.9	252.9	0
<a href="#">10/19/18 - 10/20/18</a>	1298	Science	10.8	103.7	242.1	0
<a href="#">10/20/18 - 10/21/18</a>	1299	Science	10.7	114.4	231.4	0
<a href="#">10/22/18 - 10/23/18</a>	1300	Science	11.1	125.5	220.3	0
<a href="#">10/27/18 - 10/28/18</a>	1301	Science	11.3	136.8	209	0

<a href="#">10/30/18 - 10/31/18</a>	1302	Science	11.7	148.5	197.3	0
<a href="#">10/31/18 - 11/01/18</a>	1303	Science	11.3	159.8	186	0
<a href="#">11/01/18</a>	1304	Transit	0.6	160.4	185.4	0
<a href="#">11/03/18 - 11/04/18</a>	1305	Science	11	171.4	174.4	0
<a href="#">11/04/18</a>	1306	Science	10.8	182.2	163.6	0
<a href="#">11/05/18</a>	1307	Science	10.4	192.6	153.2	0
<a href="#">11/07/18</a>	1308	Science	10.4	203	142.8	0
<a href="#">11/09/18 - 11/10/18</a>	1309	Science	11.1	214.1	131.7	0
<a href="#">11/10/18 - 11/11/18</a>	1310	Science	10.6	224.7	121.1	0
<a href="#">11/11/18</a>	1311	Science	10.8	235.5	110.3	0
<a href="#">11/12/18</a>	1312	Science	10.7	246.2	99.6	0
<a href="#">11/14/18 - 11/15/18</a>	1313	Science	11.2	257.4	88.4	0
<a href="#">11/15/18</a>	1314	Science	10.3	267.7	78.1	0
<a href="#">11/16/18 - 11/17/18</a>	1315	Science	10.1	277.8	68	0
<a href="#">11/19/18</a>	1316	Transit	3.4	281.2	64.6	0
<a href="#">11/21/18</a>	1317	Transit	11.6	292.8	53	0

*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 - AFRC 11/03/18 Science Report

**Mission:** OIB

**Mission Summary:**

Mission: Hamilton Line – Amery Sector  
Priority: High

The forecasts last night gave IceBridge hope of completing its 3<sup>rd</sup> baseline mission in a row, but deteriorating conditions over Pine Island and Thwaites led us back to the far south: Hamilton Line – Amery Sector. Cloudy conditions over the Bellingshausen Sea and Antarctic Peninsula gradually transitioned into clear blue skies as we approached the start of the 1.3-hour long survey at nearly 88°S.

Due to the location of this sector, on the return transit we passed directly over Amundsen-Scott South Pole Station much to the excitement of all on board!! IceBridge was able to capture a clear shot of the entire station with CAMBOT.

Most impressively, the well-orchestrated teamwork displayed by the entire IceBridge team (both in air and on the ground) led to a perfectly on time departure from Ushuaia. This feat is extremely impressive considering it was our first flight attempt at our new destination and that we encountered a few unexpected bumps in the morning.

All instruments reported excellent data collection and quality. The design of the Hamilton Line – Amery Sector covers about one-third of the southernmost extent of the ICESat-2 ground tracks; thus, latency is variable. Our newest guest, ICESat-2 Project Scientist Thorsten Markus, could barely contain his excitement as he experienced first hand the coordination between these two missions.

As of today, IceBridge has surveyed 6,572 nautical miles of ICESat-2 ground tracks. Way to go team!

Media: Romain Potoki and Florent Muller of France2 joined us today, conducting interviews and collecting footage for a feature-length documentary.

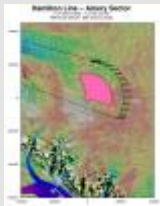
Outlook: Tomorrow's forecast over the IceBridge Amundsen Sea Embayment baseline targets is favorable. Weather in Ushuaia was not an issue today, and we look forward to many more flights over the remaining weeks.

List of attached figures:

1. Map of today's science mission. (John Sonntag/NASA)
2. CAMBOT images the Amundsen-Scott South Pole station as we ascend after completing our survey line. (Matt Linkswiler/NASA)
3. Clouds clear to reveal glaciated peaks in the southern Antarctic Peninsula. (Brooke Medley/NASA)
4. A series of moraines reveals ice retreat on a small mountain near the Foundation Ice Stream. (Brooke Medley/NASA)
5. Sastrugi near the South Pole suggest there are two dominant wind directions. (Brooke Medley/NASA)

Images:

## Figure 1



[Read more](#)

## Figure 2



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## Figure 3



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## Figure 4



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## Figure 5



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**Submitted by:** Brooke Medley on 11/11/18

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