

OIB - P-3 Orion 11/21/17 Science Report

Aircraft: [P-3 Orion - WFF \(See full schedule\)](#)

Date: Tuesday, November 21, 2017

Mission: OIB

Mission Location: Ushuaia, Argentina

Mission Summary:

Mission: South Peninsula A (priority: high)

This is primarily a repeat flight, designed to assess dh/dt of four glaciers draining the Dyer Plateau. These are the Fleming, Maitland, Lurabee, and Clifford. We also re-fly a portion of an established grid uphill from the grounding line on the west side, with grid lines spaced at 20 km. This grid is intended to assess dh/dt in this area, and on its south end it connects with a similarly-designed grid in the English Coast 03 flight. The Fleming Glacier lines in this mission are supplemented by a 10 km grid over Fleming in the Alexander-Fleming 01B flight.

Our four weather models this morning showed generally favorable, though not perfect, conditions across the central/southern Antarctic Peninsula, with some cloudiness persisting over southern portions of the Dyer Plateau, George VI Sound, and Alexander Island. The models also predicted clearing conditions during the day, ahead of an oncoming front from the west (a typical, and thus believable, weather scenario in this area). Visible and infrared NOAA HRPT satellite imagery, helpfully provided by our British Antarctic Survey colleagues at Rothera Station, confirmed that the northern portion of our survey area was clear, but also showed extensive clouds in the south, agreeing with the models.

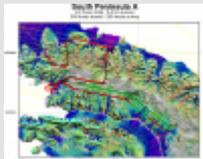
So we launched this mission, and also developed a backup plan to fly the Fleming Glacier grid from the Alexander-Fleming 01B mission in lieu of the southern lines from South Peninsula A in the event the clouds there had not cleared.

As it happened, only the southernmost 20 nm of the outboard line was obscured by a thin stratus deck, and the rest of the mission was totally clear, so we did not exercise the option to fly the Fleming grid. All in all we estimate better than 98% successful data collection today.

All instruments performed well. The ATM T6 (wide scanner) operator noticed some possible fluid contamination on that instrument's nadir window partway through the flight, but believes it had no significant effect on the instrument's data quality.

Images:

Map of South Peninsula A



[Read more](#)

Clifford Glacier



[Read more](#)

Icefall



[Read more](#)

Triune Peaks



[Read more](#)

Crescent Scarp



[Read more](#)

Submitted by: John Sonntag on 11/21/17

[Related Flight Report:](#)

P-3 Orion 11/21/17

Flight Number: OIB-Ushuaia Science Flight #8

Payload Configuration: OIB - Ushuaia 2018

Nav Data Collected: No

Total Flight Time: 9.4 hours

Submitted by: Kelly Griffin on 11/24/17

Flight Segments:

From:	SAWH	To:	SAWH
Start:	11/21/17 12:42 Z	Finish:	11/21/17 22:04 Z
Flight Time:	9.4 hours		
Log Number:	18P006	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	18P006
Flight Hours Approved in SOFRS	151
Total Used	156
Total Remaining	-5

18P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
10/17/17	OIB - Airworthiness Test Flight	Check	1.1	1.1	149.9	

10/18/17	OIB - Project Test Flight	Check	3.5	4.6	146.4
10/19/17	OIB PTF - Radar	Check	4.5	9.1	141.9
10/23/17	OIB - Transit leg #1	Transit	7.1	16.2	134.8
10/24/17	OIB - Transit leg #2	Transit	6.5	22.7	128.3
10/25/17	OIB - Transit leg #3	Transit	7	29.7	121.3
10/29/17 - 10/30/17	OIB-Ushuaia Science Flight #1	Science	9.7	39.4	111.6
10/31/17	OIB-Ushuaia Science Flight #2	Science	8.9	48.3	102.7
11/03/17	OIB-Ushuaia Science Flight #3	Science	9	57.3	93.7
11/04/17	OIB-Ushuaia Science Flight #4	Science	9.3	66.6	84.4
11/12/17	OIB-Ushuaia Science Flight #5	Science	9.5	76.1	74.9
11/14/17	OIB-Ushuaia Science Flight #6	Science	9.8	85.9	65.1
11/16/17	OIB-Ushuaia Science Flight #7	Science	9.1	95	56
11/21/17	OIB-Ushuaia Science Flight #8	Science	9.4	104.4	46.6
11/22/17 - 11/23/17	OIB-Ushuaia Science Flight #9	Science	9.9	114.3	36.7
11/24/17	OIB-Ushuaia Science Flight #10	Science	9.6	123.9	27.1
11/25/17 - 11/26/17	OIB-Ushuaia Science Flight #11	Science	9.5	133.4	17.6
11/27/17	OIB-Ushuaia SAWH-SCDA Transit Flight	Transit	7	140.4	10.6
11/28/17	OIB-Ushuaia SCDA-MROC Transit Flight	Transit	7	147.4	3.6
11/29/17	OIB-Ushuaia MROC-KNGU Transit Flight	Transit	6.3	153.7	-2.7
11/29/17	OIB-Ushuaia KNGU-KWAL Transit Flight	Transit	0.8	154.5	-3.5
12/04/17	OIB-Post Mission Calibration Flight	Science	1.5	156	-5

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.

Page Last Updated: April 22, 2017

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