

P-3 Orion 04/18/18

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

Flight Number: 2018 OIB Arctic -Science #10

Payload Configuration: 2018 OIB Arctic

Nav Data Collected: No

Total Flight Time: 8 hours

Submitted by: Janet Letchworth on 04/18/18

Flight Segments:

From:	BGTL	To:	BGTL
Start:	04/18/18 10:58 Z	Finish:	04/18/18 19:00 Z
Flight Time:	8 hours		
Log Number:	18P008	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	This flight covered the Zachariae and 79 North line - a baseline land ice mission over two glaciers on the northeast coast of Greenland.		

Flight Hour Summary:

	18P008
Flight Hours Approved in SOFRS	201.2
Total Used	190.4
Total Remaining	10.8

18P008 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/13/18	2018 OIB Arctic - Airworthiness Test Flight	Other	0.8	0.8	200.4	
03/14/18	2018 OIB Arctic -Project Test Flight - Laser	Other	2.6	3.4	197.8	
03/15/18	2018 OIB Arctic -Project Test Flight - Radar	Other	5.7	9.1	192.1	
03/18/18	2018 OIB Arctic -delta ATF	Other	0.8	9.9	191.3	
03/20/18	2018 OIB Arctic -Transit to Thule	Transit	7.9	17.8	183.4	
03/22/18	2018 OIB Arctic - Science #1	Science	7.8	25.6	175.6	
04/03/18	2018 OIB Arctic - Science #2	Science	7.9	33.5	167.7	
04/04/18	2018 OIB Arctic - Science #3	Science	8.1	41.6	159.6	
04/05/18	2018 OIB Arctic - Science #4	Science	8	49.6	151.6	
04/06/18	2018 OIB Arctic - Science #5	Science	8.8	58.4	142.8	
04/07/18 - 04/08/18	2018 OIB Arctic - Science #6	Science	8.1	66.5	134.7	
04/08/18 - 04/09/18	2018 OIB Arctic - Science #7	Science	8.3	74.8	126.4	
04/14/18 - 04/15/18	2018 OIB Arctic - Science #8	Science	7.7	82.5	118.7	
04/16/18	2018 OIB Arctic - Science #9	Science	8.2	90.7	110.5	

04/18/18	2018 OIB Arctic - Science #10	Science	8	98.7	102.5
04/19/18	2018 OIB Arctic - Science #11	Science	7.7	106.4	94.8
04/20/18	2018 OIB Arctic -Transit to Kanger	Transit	4.2	110.6	90.6
04/21/18	2018 OIB Arctic - Science #12	Science	8.1	118.7	82.5
04/22/18	2018 OIB Arctic - Science #13	Science	6.5	125.2	76
04/23/18	2018 OIB Arctic - Science #14	Science	8.2	133.4	67.8
04/25/18	2018 OIB Arctic - Science #15	Science	7.7	141.1	60.1
04/26/18	2018 OIB Arctic - Science #16	Science	8.8	149.9	51.3
04/27/18	2018 OIB Arctic - Science #17	Science	8	157.9	43.3
04/29/18	2018 OIB Arctic - Science #18	Science	8.3	166.2	35
04/30/18	2018 OIB Arctic - Science #19	Science	9.3	175.5	25.7
05/01/18	2018 OIB Arctic - Science #20	Science	7.4	182.9	18.3
05/03/18	2018 OIB Arctic -Return Transit Leg #1	Transit	6.4	189.3	11.9
05/03/18	2018 OIB Arctic -Return Transit Leg #2	Transit	0.6	189.9	11.3
05/03/18	2018 OIB Arctic -Return Transit Leg #3	Transit	0.5	190.4	10.8

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 - P-3 Orion 04/18/18 Science Report

Mission: OIB

Mission Summary:

Mission Zachariæ-79N
Priority: Baseline

This mission reoccupies the centerlines of the Zachariæ Isstrøm and 79N glaciers, plus flies a grid of six ascending ICESat-1 tracks, similar to one originally flown by OIB in 2012, but moved upstream by two ICESat-1 ground tracks to account for the breakup of the lower ice shelf. It also overflies a pair of PROMICE sites immediately north of 79N Glacier. We transit to the northeast region along a historical ATM line dating back to 1994. For 2018 we return to Thule along a new master grid line, selected to cross some relatively large areas in the bedrock uncertainty map of Greenland.

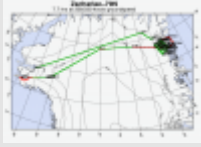
With a promising forecast across northern Greenland, we launched this mission. About two thirds of the way across the mission, we raised our AGL to deconflict from AWI's Polar 6 Basler, which was also operating in the area, and then descended again. We never saw them, but got in contact with them after they landed at Station Nord. No instrument interference was experienced. Some fog materialized upstream of the terminus of Zachariæ Isstrøm as we were completing the transverse grid. All instruments performed well. A single channel in MCoRDS was out of alignment early in the mission but was quickly re-aligned.

Attached images:

1. Map of today's mission (John Sonntag / NASA)
2. Blue ice at the onset of Zachariæ Isstrøm (Joe MacGregor / NASA)
3. A prominent serac in the winter-snow-filled crevasse fields of Zachariæ Isstrøm (Joe MacGregor / NASA)
4. The terminus of Zachariæ Isstrøm (Joe MacGregor / NASA)
5. A pinning point at the terminus of 79N Glacier (Joe MacGregor / NASA)
6. Stagnant floating ice north of the main terminus of Zachariæ Isstrøm (Joe MacGregor / NASA)
7. A nascent iceberg still weakly attached to the terminus of Zachariæ Isstrøm (Joe MacGregor / NASA)

Images:

Map of today's mission



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Blue ice at the onset of Zachariæ Isstrøm



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A prominent serac in the winter-snow-filled crevasse fields of



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The terminus of Zachariæ Isstrøm



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A pinning point at the terminus of 79N Glacier



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Stagnant floating ice north of the main terminus of Zachariæ Isstrøm



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A nascent iceberg still weakly attached to the terminus of Zachariæ



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Submitted by: Joseph MacGregor on 04/24/18

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