# P-3 Orion 04/07/18 - 04/08/18

**Aircraft:** P-3 Orion - WFF (See full schedule)
**Flight Number:** 2018 OIB Arctic -Science #6
**Payload Configuration:** 2018 OIB Arctic
**Nav Data Collected:** No
**Total Flight Time:** 8.1 hours
**Submitted by:** Janet Letchworth on 04/08/18
**Flight Segments:**

| | | | |
|---|---|---|---|
| **From:** | PAFA | **To:** | PAFA |
| **Start:** | 04/07/18 16:53 Z | **Finish:** | 04/08/18 01:00 Z |
| **Flight Time:** | 8.1 hours | | |
| **Log Number:** | 18P008 | **PI:** | Nathan Kurtz |
| **Funding Source:** | Bruce Tagg - NASA - SMD - ESD Airborne Science Program | | |
| **Purpose of Flight:** | Science | | |
| **Comments:** | This flight collected observations along the North Beaufort Loop. | | |

**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 04/07/18 Science Report

**Mission:** OIB

**Mission Summary:**

OIB completed the high priority North Beaufort Loop mission. This flight was designed to sample sea ice in the western Arctic Basin along north-south gradients in the Beaufort Sea, and to improve gaps in previous coverage primarily in the northeastern Beaufort. We overflew three mooring sites of the Beaufort Gyre Exploration Project equipped with upward-looking sonar, known as GAM-1, BGOS-B and BGOS-C. Parts of the eastern and western legs were flown along ICESat-2 ground tracks. In addition to Level-1 Requirements SI1 and SI2 this mission addresses sea ice level projected requirement SIP2d by extending sea ice baseline observations to the southern Chukchi Sea north of the Bering Strait. The mission was modified to overfly a buoy cluster at the request of Melinda Webster and Ignatius Rigor. The line was also modified to underfly a Sentinel-3A track at the request of Larry Connor. OIB entered the Sentinel-3A data line 7 minutes before the satellite passed over at 22:26:57Z.

Weather was good for most of the mission but began to deteriorate around the last half of the Sentinel-3A line. We lowered the flight altitude to get under the clouds which enabled good data to continue to be collected throughout the line. All instruments performed well during the flight making for an overall excellent day.

Data Volumes

ATM T6: 108 Gb

ATM T7: 122 Gb
CAMBOT: 77 Gb
FLIR: 11 Gb
KT19: 10 Mb
DMS: 81.9 Gb

Snow radar: 1.07 Tb
MCoRDS: No data collected
Accumulation radar: No data collected

Data on: 1803
Data off: 2313

**File:**
NorthBeaufortLoop.pdf
**Submitted by:** Nathan T. Kurtz on 04/07/18

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Marilyn Vasques

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