

## P-3 Orion 04/14/18 - 04/15/18

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

Flight Number: 2018 OIB Arctic -Science #8

Payload Configuration: 2018 OIB Arctic

Nav Data Collected: No

Total Flight Time: 7.7 hours

Submitted by: Janet Letchworth on 04/14/18

### Flight Segments:

<b>From:</b>	PAFA	<b>To:</b>	PAFA
<b>Start:</b>	04/14/18 17:56 Z	<b>Finish:</b>	04/15/18 01:39 Z
<b>Flight Time:</b>	7.7 hours		
<b>Log Number:</b>	<a href="#">18P008</a>	<b>PI:</b>	Nathan Kurtz
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	This flight covered the Beaufort Loop line		

### Flight Hour Summary:

	18P008
<b>Flight Hours Approved in SOFRS</b>	201.2
<b>Total Used</b>	190.4
<b>Total Remaining</b>	10.8

### 18P008 Flight Reports

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

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

**Mission:** OIB

**Mission Summary:**

Mission: Beaufort Loop  
Priority: Medium

This mission is designed to sample sea ice in the eastern Beaufort Sea in an area which lacked OIB coverage prior to 2013, which is also of priority interest to the Canadian Space Agency. For 2017 we replace the segment just off Banks Island with an almost identical ICESat-2 ground track. In addition to Level-1 Requirements SI1 and SI2, it addresses sea ice Level 1 projected requirement SIP2b by extending sea ice baseline observations to the southern Beaufort Sea, west of Banks Island.

Following aircraft maintenance yesterday, we were able to launch this sea-ice mission under mostly clear skies, going clockwise around the eastern Beaufort Sea. We observed mostly multi-year ice. On our return, we passed along the coast of Banks Island, after which we encountered a few low clouds that we were able to fly under at ~1,000 ft AGL briefly. On our return, near the coast, we passed what appeared to be an oil rig surrounded by sea ice. All instruments reported fully successful operation all flight.

Attached images:

1. Map of today's mission (John Sonntag / NASA)
2. A bigger lead in sea ice (Joe MacGregor / NASA)
3. A smaller lead in sea ice (Joe MacGregor / NASA)
4. Regularly spaced flooding within a proto-lead? (John Sonntag / NASA)

Images:

## Map of today's mission



[Read more](#)

## A bigger lead in sea ice



[Read more](#)

## A smaller lead in sea ice



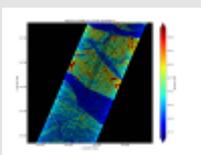
[Read more](#)

## Regularly spaced flooding within a proto-lead?



[Read more](#)

## ATM T6 wide-scan swath over a lead



[Read more](#)

Submitted by: Joseph MacGregor on 04/14/18

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