

## P-3 Orion 04/03/17

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

Flight Number: Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit

Payload Configuration: OIB Arctic

Nav Data Collected: No

Total Flight Time: 7.4 hours

Submitted by: Kelly Griffin on 04/05/17

### Flight Segments:

<b>From:</b>	BGTL	<b>To:</b>	ENSB
<b>Start:</b>	04/03/17 14:15 Z	<b>Finish:</b>	04/03/17 21:40 Z
<b>Flight Time:</b>	7.4 hours		
<b>Log Number:</b>	<a href="#">17P006</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 was a combined science and transit flight to reposition the P-3 at Svalbard Airport in Longyearbyen, Norway		

### Flight Hour Summary:

	<b>17P006</b>
<b>Flight Hours Approved in SOFRS</b>	333.6
<b>Total Used</b>	332
<b>Total Remaining</b>	1.6

### 17P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">02/24/17</a>	Airworthiness Test Flight	Check	1	1	332.6	
<a href="#">02/26/17</a>	Project Test Flight #1	Check	4.9	5.9	327.7	
<a href="#">02/27/17</a>	Project Test Flight #2	Check	3	8.9	324.7	
<a href="#">03/07/17</a>	Transit Flight	Transit	8.2	17.1	316.5	
<a href="#">03/09/17</a>	Science Flight #1 - North Pole Transect	Science	8	25.1	308.5	
<a href="#">03/10/17</a>	Science Flight #2 - Laxon Line	Science	8.5	33.6	300	
<a href="#">03/11/17 - 03/12/17</a>	Science Flight #3 - Chukchi West Line	Science	8	41.6	292	
<a href="#">03/12/17 - 03/13/17</a>	Science Flight #4 - North Beaufort Loop Line	Science	8.1	49.7	283.9	
<a href="#">03/14/17 - 03/15/17</a>	Science Flight #5 - East Beaufort Loop Line	Science	8	57.7	275.9	
<a href="#">03/20/17</a>	Science Flight #6 - Sea Ice South Basin Transect (to Thule)	Science	8.1	65.8	267.8	
<a href="#">03/22/17</a>	Science Flight #7 - North Flux 02	Science	7.9	73.7	259.9	
<a href="#">03/23/17</a>	Science Flight #8 - Zig Zag West Line	Science	7.9	81.6	252	
<a href="#">03/24/17</a>	Science Flight #9 - CryoVEx Line	Science	5.8	87.4	246.2	
<a href="#">03/27/17</a>	Science Flight #10 - Northwest Coastal A Line	Science	7.4	94.8	238.8	
<a href="#">03/28/17</a>	Science Flight #11 - North Central Cap 01 Line	Science	7.6	102.4	231.2	
<a href="#">03/29/17</a>	Science Flight #12 - Ellesemere Island 01 Line	Science	7.6	110	223.6	
<a href="#">03/30/17</a>	Science Flight #13 - Ellesemere South Line	Science	7.9	117.9	215.7	

<a href="#">03/31/17</a>	Science Flight #14- Alexander-Petermann Line	Science	6.5	124.4	209.2
<a href="#">04/03/17</a>	Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit	Science	7.4	131.8	201.8
<a href="#">04/05/17</a>	Science Flight #16 - Svalbard North Line (High Priority)	Science	7	138.8	194.8
<a href="#">04/06/17</a>	Science Flight #17- Svalbard South Mission (High Priority)	Science	8.5	147.3	186.3
<a href="#">04/07/17</a>	Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL	Science	8.3	155.6	178
<a href="#">04/10/17</a>	Science Flight #19- North Central Gap 3	Science	7.8	163.4	170.2
<a href="#">04/11/17</a>	Science Flight #20- CryoVex 2 (High Priority)	Science	7.8	171.2	162.4
<a href="#">04/12/17</a>	Science Flight #21-Northwest Coastal C	Science	7.2	178.4	155.2
<a href="#">04/13/17</a>	Science Flight #22-North Glaciers 02 Prime (High Priority)	Science	8.2	186.6	147
<a href="#">04/14/17</a>	Science Flight #23-IceSat-2 North/CryoSat-2 SARIn	Science	7	193.6	140
<a href="#">04/17/17</a>	Science Flight #24-Humboldt 01(High Priority)	Science	7.8	201.4	132.2
<a href="#">04/19/17</a>	Science Flight #25-Sea Ice - South Canada Basin (MediumPriority)	Science	7.8	209.2	124.4
<a href="#">04/20/17</a>	Transit Flight to Kangerlussuaq	Transit	3	212.2	121.4
<a href="#">04/21/17</a>	Science Flight #26-Southeast Coastal	Science	8	220.2	113.4
<a href="#">04/22/17</a>	Science Flight #27-Helheim-Kangerd	Science	7.8	228	105.6
<a href="#">04/24/17</a>	Science Flight #28-Geikie 01 (High Priority)	Science	8	236	97.6
<a href="#">04/26/17</a>	Science Flight #29-Devon-Bylot (Medium Priority)	Science	7.9	243.9	89.7
<a href="#">04/28/17</a>	Science Flight #30-Penny 01 (Medium Priority)	Science	6	249.9	83.7
<a href="#">04/29/17</a>	Science Flight #31-Thomas - Jakobshavn 01	Science	8.4	258.3	75.3
<a href="#">05/01/17</a>	Science Flight #32-Thomas - Jakobshavn-Eqip-Store	Science	8.4	266.7	66.9
<a href="#">05/02/17</a>	Science Flight #33-Thomas - ICESat-2 Central	Science	7.9	274.6	59
<a href="#">05/03/17</a>	Science Flight #34-Thomas - Southwest Coastal A	Science	8.3	282.9	50.7
<a href="#">05/05/17</a>	Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority)	Science	8.2	291.1	42.5
<a href="#">05/06/17</a>	Science Flight #36-Helheim-K-EGIG-Summit	Science	8	299.1	34.5
<a href="#">05/08/17</a>	Science Flight #37-Southeast Glaciers 01 (High Priority)	Science	8	307.1	26.5
<a href="#">05/10/17</a>	Science Flight #38-Umanaq B (High Priority)	Science	8	315.1	18.5
<a href="#">05/11/17</a>	Science Flight #39-ICESat-2 South (High Priority)	Science	8.1	323.2	10.4
<a href="#">05/12/17</a>	Science Flight #40-Nuuk Fjords	Science	1.8	325	8.6

<a href="#">05/13/17</a>	Transit Flight to Dover DE (to clear customs)	Transit	6.4	331.4	2.2
<a href="#">05/13/17</a>	Transit Flight to Wallops Flight Facility	Transit	0.6	332	1.6

*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 04/03/17 Science Report

**Mission:** OIB

**Mission Summary:**

OIB completed the baseline priority Zachariae/79N mission. This mission reoccupies the centerlines of the Zachariae and 79N glaciers, plus a grid of six ascending ICESat-1 tracks similar to one originally flown by OIB in 2012, but moved upstream by two ICESat-1 groundtracks to account for the breakup of the lower ice shelf. We also overflow a pair of PROMICE sites immediately north of 79N Glacier, point KPCL was overflowed at 16:11:59Z and point KPCU at 16:15:05:Z. The transit to and from the northeast region was along a historical ATM line dating back to 1994. For 2017 this mission was configured as a transit flight between Thule and Longyearbyen, and as such it also contained a sea ice survey across the Fram Strait, including overflights of four underwater moorings with upward-looking sonar (ULS) sensors. These moorings are known as F11, F12, F13, and F14. Overflight times were: F11: 17:42:45Z; F12: 17:40:01Z; F13: 17:37:16Z; F14: 17:33:00Z.

The weather forecast for the mission showed clear skies which is what we experienced on flight, all instruments onboard worked well.

**Data volumes**

ATM: T5: 25 Gb     T6: 138 Gb

FLIR: 14 Gb

Cambot: 46 Gb

KT19: 10 Mb

DMS: 137 Gb

Snow/Ku radar: 1.33 Tb

MCoRDS: 1.3 Tb

Accumulation radar: 973 Gb (Previous noise problem improved)

data on: 1125

data off: 1803

**File:**

 [zac79N.pdf](#)

**Submitted by:** Nathan T. Kurtz on 04/03/17

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