

P-3 Orion 03/31/17

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

Flight Number: Science Flight #14- Alexander-Petermann Line

Payload Configuration: OIB Arctic

Nav Data Collected: No

Total Flight Time: 6.5 hours

Submitted by: Kelly Griffin on 04/05/17

Flight Segments:

From:	BGTL	To:	BGTL
Start:	03/31/17 11:15 Z	Finish:	03/31/17 17:45 Z
Flight Time:	6.5 hours		
Log Number:	17P006	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	17P006
Flight Hours Approved in SOFRS	333.6
Total Used	332
Total Remaining	1.6

17P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
02/24/17	Airworthiness Test Flight	Check	1	1	332.6	
02/26/17	Project Test Flight #1	Check	4.9	5.9	327.7	
02/27/17	Project Test Flight #2	Check	3	8.9	324.7	
03/07/17	Transit Flight	Transit	8.2	17.1	316.5	
03/09/17	Science Flight #1 - North Pole Transect	Science	8	25.1	308.5	
03/10/17	Science Flight #2 - Laxon Line	Science	8.5	33.6	300	
03/11/17 - 03/12/17	Science Flight #3 - Chukchi West Line	Science	8	41.6	292	
03/12/17 - 03/13/17	Science Flight #4 - North Beaufort Loop Line	Science	8.1	49.7	283.9	
03/14/17 - 03/15/17	Science Flight #5 - East Beaufort Loop Line	Science	8	57.7	275.9	
03/20/17	Science Flight #6 - Sea Ice South Basin Transect (to Thule)	Science	8.1	65.8	267.8	
03/22/17	Science Flight #7 - North Flux 02	Science	7.9	73.7	259.9	
03/23/17	Science Flight #8 - Zig Zag West Line	Science	7.9	81.6	252	
03/24/17	Science Flight #9 - CryoVEx Line	Science	5.8	87.4	246.2	
03/27/17	Science Flight #10 - Northwest Coastal A Line	Science	7.4	94.8	238.8	
03/28/17	Science Flight #11 - North Central Cap 01 Line	Science	7.6	102.4	231.2	
03/29/17	Science Flight #12 - Ellesemere Island 01 Line	Science	7.6	110	223.6	
03/30/17	Science Flight #13 - Ellesemere South Line	Science	7.9	117.9	215.7	
03/31/17	Science Flight #14- Alexander-Petermann Line	Science	6.5	124.4	209.2	

04/03/17	Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit	Science	7.4	131.8	201.8
04/05/17	Science Flight #16 - Svalbard North Line (High Priority)	Science	7	138.8	194.8
04/06/17	Science Flight #17- Svalbard South Mission (High Priority)	Science	8.5	147.3	186.3
04/07/17	Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL	Science	8.3	155.6	178
04/10/17	Science Flight #19- North Central Gap 3	Science	7.8	163.4	170.2
04/11/17	Science Flight #20- CryoVex 2 (High Priority)	Science	7.8	171.2	162.4
04/12/17	Science Flight #21-Northwest Coastal C	Science	7.2	178.4	155.2
04/13/17	Science Flight #22-North Glaciers 02 Prime (High Priority)	Science	8.2	186.6	147
04/14/17	Science Flight #23-IceSat-2 North/CryoSat-2 SARIn	Science	7	193.6	140
04/17/17	Science Flight #24-Humboldt 01(High Priority)	Science	7.8	201.4	132.2
04/19/17	Science Flight #25-Sea Ice - South Canada Basin (MediumPriority)	Science	7.8	209.2	124.4
04/20/17	Transit Flight to Kangerlussuaq	Transit	3	212.2	121.4
04/21/17	Science Flight #26-Southeast Coastal	Science	8	220.2	113.4
04/22/17	Science Flight #27-Helheim-Kangerd	Science	7.8	228	105.6
04/24/17	Science Flight #28-Geikie 01 (High Priority)	Science	8	236	97.6
04/26/17	Science Flight #29-Devon-Bylot (Medium Priority)	Science	7.9	243.9	89.7
04/28/17	Science Flight #30-Penny 01 (Medium Priority)	Science	6	249.9	83.7
04/29/17	Science Flight #31-Thomas - Jakobshavn 01	Science	8.4	258.3	75.3
05/01/17	Science Flight #32-Thomas - Jakobshavn-Eqip-Store	Science	8.4	266.7	66.9
05/02/17	Science Flight #33-Thomas - ICESat-2 Central	Science	7.9	274.6	59
05/03/17	Science Flight #34-Thomas - Southwest Coastal A	Science	8.3	282.9	50.7
05/05/17	Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority)	Science	8.2	291.1	42.5
05/06/17	Science Flight #36-Helheim-K-EGIG-Summit	Science	8	299.1	34.5
05/08/17	Science Flight #37-Southeast Glaciers 01 (High Priority)	Science	8	307.1	26.5
05/10/17	Science Flight #38-Umanaq B (High Priority)	Science	8	315.1	18.5
05/11/17	Science Flight #39-ICESat-2 South (High Priority)	Science	8.1	323.2	10.4
05/12/17	Science Flight #40-Nuuk Fjords	Science	1.8	325	8.6
05/13/17	Transit Flight to Dover DE (to clear customs)	Transit	6.4	331.4	2.2

05/13/17

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 03/31/17 Science Report

Mission: OIB

Mission Summary:

OIB completed the high priority Alexander-Petermann 01 mission. This mission was designed to re-fly most of the Cape Alexander ICESat-1 groundtracks flown in 2012, two flowlines of Petermann Glacier which OIB flies almost every year, and the centerlines of Melville, Tracy and Heilprin Glaciers. Over Petermann glacier two new longitudinal lines for the purpose of collecting gravity data were included. The mission was also designed to fly two new flowlines of Farquhar Glacier and Harald Moltke Brae and a possible Cold War-era waste site to help assess the possibility that the waste may be liberated by ongoing ice loss in the area. The suspected waste site was overflown at 16:15:46Z. Due to the earlier closing time of Thule Airport on Friday we had to cut out the Melville and Farquhar Glacier lines, two Cape Alexander lines, and the Harald Moltke Brae line. These missions can be made up in a mop-up later in the campaign.

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

Data volumes

ATM: T5: 24 Gb T6: 126 Gb

FLIR: 13 Gb

Cambot: 34 Gb

KT19: 10 Mb

DMS: 74 Gb

Snow/Ku radar: 1.2 Tb

MCoRDS: 1.5 Tb

Accumulation radar: 1.2 Tb

Gravity: 2.6 Gb

data on: 1129

data off: 1737

File:

 [alex-petermann01.pdf](#)

Submitted by: Nathan T. Kurtz on 03/31/17

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Page Editor: Brad Bulger

NASA Official: Marilyn Vasques

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