

P-3 Orion 04/29/17

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

Flight Number: Science Flight #31-Thomas - Jakobshavn 01

Payload Configuration: OIB Arctic

Nav Data Collected: No

Total Flight Time: 8.4 hours

Submitted by: Cate Easmunt on 04/29/17

Flight Segments:

From:	BGSF	To:	BGSF
Start:	04/29/17 10:39 Z	Finish:	04/29/17 19:00 Z
Flight Time:	8.4 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 04/29/17 Science Report

Mission: OIB

Mission Summary:

Mission: Thomas-Jakobshavn 01 (priority: baseline)

This is a repeat of 2009-2016 IceBridge missions. Its purpose is to re-survey the highest-priority lines of the historical ATM 10-km Jakobshavn grid and the main flowline of Jakobshavn. It also extends that grid with a broader array of ICESat ground tracks over the larger Jakobshavn basin. This mission was renamed in 2015 in honor of Dr. Robert H. Thomas.

The series of storms which kept us out of southern Greenland since Monday finally dissipated during the day yesterday, leaving most of the west coast clear this morning. Instead of organized storm systems, most of the east coast was influenced by strong onshore flow today, which created clouds and precipitation all the way to Summit, but provided the central-west coast with descending and hence drying offshore flow. These were ideal conditions for flying one of our two baseline-priority missions in the Jakobshavn basin. We successfully collected data across 100% of the flight lines.

The CReSIS team, supported by P-3 maintenance personnel, worked late into the evening last night on the snow radar, replacing components where possible, reseating boards and connectors, and extensively testing the system. A root cause for yesterday's failure of the system was not definitively found. However the various measures taken by John Paden and Hara Talasila last night apparently repaired the system, which worked almost normally today. The remaining issue for the snow radar today was an increased amount of coherent noise, which the CReSIS team is confident can be mitigated in post-processing. All other instruments performed normally.

Data volumes:

Accumulation Radar: 1.5 Tb

ATM: 162 Gb

CAMBOT: 52 Gb

DMS: 119 Gb

FLIR: 17 Gb

KT19: 12 Mb

MCoRDS: 2.0 Tb

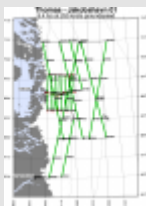
Narrow Swath ATM: 31 Gb

Snow Radar: 1.5 Tb

total data collection time: 8.0 hrs

Images:

Map of Thomas-Jakobshavn 01



[Read more](#)

Jakpbshavn Glacier



[Read more](#)

Jakobshavn calving front



[Read more](#)

Sarqardliup Sermia



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Sermeq Avagnarleq



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Submitted by: John Sonntag on 04/29/17

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