

## P-3 Orion 05/21/14

**Aircraft:**

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

**Flight Number:**

Science Flight - Northeast Grid 04

**Payload Configuration:**

Operation IceBridge

**Nav Data Collected:**

Yes

**Total Flight Time:**

7.9 hours

**Submitted by:**

Luci Crittenden on 05/21/14

**Flight Segments:**

<b>From:</b>	BGTL	<b>To:</b>	BGTL
<b>Start:</b>	05/21/14 10:53 Z	<b>Finish:</b>	05/21/14 18:46 Z
<b>Flight Time:</b>	7.9 hours		
<b>Log Number:</b>	<a href="#">14P008</a>	<b>PI:</b>	Michael Studinger
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	OIB completed their last mission of the 2014 Arctic campaign today with a successful Northeast Grid 01 mission. Thursday, May 22, is a pack-up day and Friday, May 23 will be a transit back to Wallops.		

**Flight Hour Summary:**

	<b>14P008</b>
<b>Flight Hours Approved in SOFRS</b>	369
<b>Total Used</b>	354.1
<b>Total Remaining</b>	14.9

**14P008 Flight Reports**

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">03/06/14</a>	1767	Check	1.3	1.3	367.7	
<a href="#">03/06/14</a>	1768	Check	2.7	4	365	
<a href="#">03/07/14</a>	1769	Check	5.7	9.7	359.3	
<a href="#">03/10/14</a>	WFF to Thule Transit	Transit	8.1	17.8	351.2	
<a href="#">03/12/14</a>	Sea Ice - Nansen Gap	Science	7.6	25.4	343.6	
<a href="#">03/13/14</a>	Sea Ice - Zig Zag East	Science	7.7	33.1	335.9	
<a href="#">03/14/14</a>	Thule - Fairbanks Transit: Sea Ice - Laxon Line	Science	8.8	41.9	327.1	
<a href="#">03/15/14 - 03/16/14</a>	Sea Ice - SIZRS ZigZag	Science	8.1	50	319	
<a href="#">03/17/14 - 03/18/14</a>	Sea Ice - North Beaufort Loop - with Barrow	Science	8.2	58.2	310.8	
<a href="#">03/18/14 - 03/19/14</a>	F06 Sea Ice - East Beaufort - with ONR/MIZ/CryoVEx camp	Science	8.2	66.4	302.6	
<a href="#">03/19/14 - 03/20/14</a>	F07 Sea Ice - Beaufort - Chukchi Diamond	Science	8.3	74.7	294.3	
<a href="#">03/21/14</a>	F08: Sea Ice ? South Basin Transect	Science	8.5	83.2	285.8	
<a href="#">03/24/14</a>	F09: Sea Ice ? Giles Gateway	Science	8	91.2	277.8	
<a href="#">03/25/14</a>	F10 - Axel Heiberg-Eureka	Science	3	94.2	274.8	
<a href="#">03/26/14</a>	F11 - Zigzag West	Science	7.9	102.1	266.9	
<a href="#">03/28/14</a>	Sea Ice ? South Canada Basin	Science	7	109.1	259.9	

<a href="#">03/31/14</a>	F13 Sea Ice ? CryoVEx Nord	Science	7.3	116.4	252.6
<a href="#">04/03/14</a>	F15 Sea Ice - North Canada Basin	Science	8.2	124.6	244.4
<a href="#">04/04/14</a>	Transit from Thule to Kangerlussuaq	Transit	2.8	127.4	241.6
<a href="#">04/05/14</a>	Science Flight #16 - East Glaciers	Science	7.8	135.2	233.8
<a href="#">04/07/14</a>	Science Flight - Southwest Coastal A	Science	7.7	142.9	226.1
<a href="#">04/08/14</a>	Science Flight - Southeast Glacier 01	Science	7.6	150.5	218.5
<a href="#">04/09/14</a>	Science Flight - Jakobshaven Glacier 01	Science	8	158.5	210.5
<a href="#">04/10/14</a>	Science Flight - K-EGIG Summit Mission	Science	7.9	166.4	202.6
<a href="#">04/12/14</a>	Science Flight - OSU Clusters	Science	6.6	173	196
<a href="#">04/14/14</a>	Science Flight - Jakobshavn-Eqip-Store	Science	7.7	180.7	188.3
<a href="#">04/15/14</a>	Science Flight - Southwest Glacier 01	Science	7.3	188	181
<a href="#">04/16/14</a>	Science Flight - IceSat 2 Central	Science	8.4	196.4	172.6
<a href="#">04/19/14</a>	Science Flight - Jakobshaven 02	Science	6.4	202.8	166.2
<a href="#">04/21/14</a>	Science Flight - Geikie Glacier 01	Science	8.6	211.4	157.6
<a href="#">04/23/14</a>	Science Flight - Baffin 02	Science	6	217.4	151.6
<a href="#">04/24/14</a>	Science Flight - Helheim-Kangerd	Science	8.2	225.6	143.4
<a href="#">04/25/14</a>	Transit Flight - Kangerlussuaq to Thule	Transit	2.6	228.2	140.8
<a href="#">04/26/14</a>	Science Flight - NW Glacier 02 Mop-Up	Science	5.6	233.8	135.2
<a href="#">04/28/14</a>	Science Flight - North Pole Transect	Science	7.3	241.1	127.9
<a href="#">04/29/14</a>	Science Flight - Northeast Glaciers 01	Science	7.8	248.9	120.1
<a href="#">04/30/14</a>	Science Flight - Northeast Grid 01	Science	2.6	251.5	117.5
<a href="#">05/01/14</a>	Science Flight - Humboldt 01	Science	5.5	257	112
<a href="#">05/02/14</a>	Science Flight - Cryosat Land	Science	7	264	105
<a href="#">05/05/14</a>	Science Flight - IceSat 2 - North	Science	8	272	97
<a href="#">05/07/14</a>	Science Flight - NW Glaciers 01	Science	8	280	89
<a href="#">05/08/14</a>	Science Flight - North Central Gap 01	Science	8	288	81
<a href="#">05/09/14</a>	Science Flight - NW Coastal B	Science	6.9	294.9	74.1
<a href="#">05/12/14</a>	Science Flight - Alexander-Petermann 01	Science	7	301.9	67.1
<a href="#">05/14/14</a>	Science Flight - Northeast Grid 01	Science	7.7	309.6	59.4
<a href="#">05/15/14</a>	Science Flight - Northeast Grid 06	Science	8	317.6	51.4
<a href="#">05/16/14</a>	Science Flight - NW Coastal C	Science	6.1	323.7	45.3
<a href="#">05/19/14</a>	Science Flight - North Glaciers 02 Prime	Science	8	331.7	37.3
<a href="#">05/20/14</a>	Science Flight - Northwest Mopup	Science	6.5	338.2	30.8

<a href="#">05/21/14</a>	Science Flight - Northeast Grid 04	Science	7.9	346.1	22.9
<a href="#">05/23/14</a>	Transit Flight - Thule to Wallops	Transit	7.5	353.6	15.4
<a href="#">05/23/14</a>	Transit Flight - Thule to Wallops	Transit	0.5	354.1	14.9

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 05/21/14 Science Report

**Mission:**

OIB

**Mission Summary:**

### F46 Northeast Grid 04

#### Accomplishments

- Low-altitude survey (1,500 ft AGL) over northeast Greenland.
- ATM, albedo, KT-19, snow, Ku-band, MCoRDS and DMS were operated on the survey lines.
- Ramp pass at Thule at 1,500 ft AGL for instrument calibration.
- Pitch maneuvers over sea ice/water in the North Star Bay for instrument calibration.
- Satellite tracks: ICESat 0419, 0248, 0010, 0047.
- Repeat Mission: new mission.

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	67 GB	None.
DMS	yes	116 GB	None.
Snow Radar	yes	405 GB	None.
Ku-band Radar	yes	405 GB	None.
Accumulation Radar	no	N/A	NI system used for MCoRDS.
MCoRDS	yes	2.0 TB	None. Transmitted on 3 channels, recorded on all 15.
KT-19	yes	9 MB	None.
Albedo	yes	6 GB	None.

#### Mission Report (Michael Studinger, Mission Scientist)

Today's mission is a new mission, one of a suite of six flights intended to thoroughly sample the bedrock topography of northeast Greenland along a series of nearly coast-parallel ICESat lines. At the same time we obtained altimetry measurements along the ICESat tracks which will enable the calculation of dh/dt over a broad area and a significant time span. This particular mission complemented the Northeast Grid 01/02/03 missions with the next two tracks in the inland direction. We transited to the area along short ICESat tracks in the west and new east-west master grid lines.

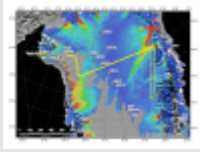
LiDAR data collection started 05/21/2014 11:00 UTC and ended at 18:39 UTC. In total we collected 7.6 hours of science data. We only lost an insignificant amount of data due to clouds in the northwest. MCoRDS had a successful day and recorded data on all 15 channels and transmitted on 3 channels. The accumulation radar

was not operated because the NI system needed to be used to MCoRDS.

Today's flight was the last science mission on this deployment.

**Images:**

**Figure 1: Today's trajectory in yellow.**



[Read more](#)

**Submitted by:**

Michael Studinger on 05/21/14

Page Last Updated: April 22, 2017

Page Editor: Katja Drdla

NASA Official: Marilyn Vasques

---

**Source URL:** [https://espoarchive.nasa.gov/flight\\_reports/P-3\\_Orion\\_05\\_21\\_14](https://espoarchive.nasa.gov/flight_reports/P-3_Orion_05_21_14)