

P-3 Orion 05/15/14

Aircraft:

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

Flight Number:

Science Flight - Northeast Grid 06

Payload Configuration:

Operation IceBridge

Nav Data Collected:

Yes

Total Flight Time:

8 hours

Submitted by:

Luci Crittenden on 05/15/14

Flight Segments:

From:	BGTL	To:	BGTL
Start:	05/15/14 10:49 Z	Finish:	05/15/14 18:49 Z
Flight Time:	8 hours		
Log Number:	14P008	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	OIB completed the Northeast Grid 06 mission today		

Flight Hour Summary:

	14P008
Flight Hours Approved in SOFRS	369
Total Used	354.1
Total Remaining	14.9

14P008 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/06/14	1767	Check	1.3	1.3	367.7	
03/06/14	1768	Check	2.7	4	365	
03/07/14	1769	Check	5.7	9.7	359.3	
03/10/14	WFF to Thule Transit	Transit	8.1	17.8	351.2	
03/12/14	Sea Ice - Nansen Gap	Science	7.6	25.4	343.6	
03/13/14	Sea Ice - Zig Zag East	Science	7.7	33.1	335.9	
03/14/14	Thule - Fairbanks Transit: Sea Ice - Laxon Line	Science	8.8	41.9	327.1	
03/15/14 - 03/16/14	Sea Ice - SIZRS ZigZag	Science	8.1	50	319	
03/17/14 - 03/18/14	Sea Ice - North Beaufort Loop - with Barrow	Science	8.2	58.2	310.8	
03/18/14 - 03/19/14	F06 Sea Ice - East Beaufort - with ONR/MIZ/CryoVEx camp	Science	8.2	66.4	302.6	
03/19/14 - 03/20/14	F07 Sea Ice - Beaufort - Chukchi Diamond	Science	8.3	74.7	294.3	
03/21/14	F08: Sea Ice ? South Basin Transect	Science	8.5	83.2	285.8	
03/24/14	F09: Sea Ice ? Giles Gateway	Science	8	91.2	277.8	
03/25/14	F10 - Axel Heiberg-Eureka	Science	3	94.2	274.8	
03/26/14	F11 - Zigzag West	Science	7.9	102.1	266.9	
03/28/14	Sea Ice ? South Canada Basin	Science	7	109.1	259.9	
03/31/14	F13 Sea Ice ? CryoVEx Nord	Science	7.3	116.4	252.6	

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

05/21/14	Science Flight - Northeast Grid 04	Science	7.9	346.1	22.9
05/23/14	Transit Flight - Thule to Wallops	Transit	7.5	353.6	15.4
05/23/14	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 05/15/14 Science Report

Mission:

OIB

Mission Summary:

F42 Northeast Grid 06

Accomplishments

- Low-altitude survey (1,500 ft AGL) over northeast Greenland.
- ATM, albedo, KT-19, snow, Ku-band, accumulation, MCoRDS and DMS were operated on the survey lines.
- Pitch maneuvers over sea ice/water in the North Star Bay for instrument calibration.
- Satellite tracks: ICESat 0404, 0278, 0040, 0032.
- Repeat Mission: none.

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	69 GB	None.
DMS	yes	104 GB	None.
Snow Radar	yes	395 GB	None.
Ku-band Radar	yes	395 GB	None.
Accumulation Radar	yes	157 GB	None.
MCoRDS	yes	2.0 TB	None.
KT-19	yes	9 MB	None.
Albedo	yes	6 GB	None.

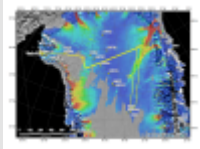
Mission Report (Michael Studinger, Mission Scientist)

Today's flight was a new mission design, 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. We transited to the area on the east along short ICESat tracks in the west and new east-west master grid lines. We also did two passes (30 minutes of flight time) over a potential new ice core site known as ?East GRIP?, near the inland-most of the grid lines and right over the Northeast Greenland Ice Stream.

LiDAR data collection started 05/15/2014 10:57 UTC and ended at 18:43 UTC. In total we collected 7.8 hours of science data. The weather was perfect. We only encountered a solid layer of low clouds for 7 minutes around Thule, which prevented us from descending onto the survey line to Camp Century.

Images:

Figure 1: Today's trajectory in yellow.



[Read more](#)

Submitted by:

Michael Studinger on 05/15/14

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