

P-3 Orion 04/30/14

Aircraft:

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

Flight Number:

Science Flight - Northeast Grid 01

Payload Configuration:

Operation IceBridge

Nav Data Collected:

Yes

Total Flight Time:

2.6 hours

Submitted by:

Luci Crittenden on 04/30/14

Flight Segments:

| | | | |
|---------------------------|--|----------------|-------------------|
| From: | BGTL | To: | BGTL |
| Start: | 04/30/14 10:52 Z | Finish: | 04/30/14 13:30 Z |
| Flight Time: | 2.6 hours | | |
| Log Number: | 14P008 | PI: | Michael Studinger |
| Funding Source: | Bruce Tagg - NASA - SMD - ESD Airborne Science Program | | |
| Purpose of Flight: | Science | | |
| Comments: | OIB attempted the Northeast Grid 01 mission today; however, about an hour into the flight the P-3B developed a hydraulic leak at the pressure line going to the #2 pump. The P-3 shortened the science mission and returned to Thule. Upon maintenance investigation, it was determined that some parts need to be sent up from Wallops. We expect the parts to arrive on the rotator tomorrow and if all goes well, OIB could attempt a short science mission later tomorrow morning. | | |

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 04/30/14 Science Report

Mission:

OIB

Mission Summary:

F32 Northeast Grid 01 - Aborted Mission

Accomplishments

- Low-altitude survey (1,500 ft AGL) over the Greenland Ice Sheet.
- ATM, albedo, KT-19, snow, Ku-band, accumulation, MCoRDS and DMS were operated on the survey lines.
- Satellite tracks: none.
- Repeat Mission: Camp Century line.

| Instrument | Operated | Data Volume | Instrument Issues/Comments |
|--------------------|----------|-------------|----------------------------|
| ATM | yes | 11.2 GB | None. |
| DMS | yes | 13.4 GB | None. |
| Snow Radar | yes | 62 GB | None. |
| Ku-band Radar | yes | 62 GB | None. |
| Accumulation Radar | yes | 76 GB | None. |
| MCoRDS | yes | 300 MB | None. |
| KT-19 | yes | 2.5 MB | None. |
| Albedo | yes | 1.3 GB | None. |

Mission Report (Michael Studinger, Mission Scientist)

Today's plan was to fly mission Northeast Grid 01. About 45 minutes into the flight the P-3 developed a hydraulic leak which required aborting the mission as a safety precaution and return to Thule. LiDAR data collection started 04/30/2014 11:03 UTC. Radars and LiDARs had to be shut down at 12:14 UTC as a safety precaution. In total we collected 1.2 hours of science data.

Images:

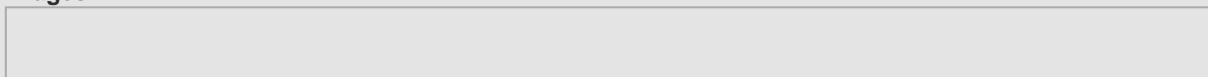
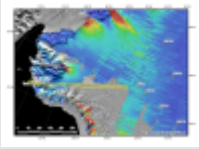


Figure 1: Today's trajectory in yellow.



[Read more](#)

Submitted by:

Michael Studinger on 04/30/14

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