

Other: NOAA P-3 05/04/16

Aircraft: Other: NOAA P-3 - 16M030

Flight Number: Sea Ice South Canada Basin

Payload Configuration: OIB Spring 2016

Nav Data Collected: No

Total Flight Time: 7.9 hours

Submitted by: John Woods on 05/04/16

Flight Segments:

| | | | |
|---------------------------|--|----------------|------------------|
| From: | BGTL | To: | BGTL |
| Start: | 05/04/16 10:49 Z | Finish: | 05/04/16 18:42 Z |
| Flight Time: | 7.9 hours | | |
| Log Number: | 16M030 | PI: | Nathan Kurtz |
| Funding Source: | Bruce Tagg - NASA - SMD - ESD Airborne Science Program | | |
| Purpose of Flight: | Science | | |

Flight Hour Summary:

| | 16M030 |
|---------------------------------------|--------|
| Flight Hours Approved in SOFRS | 200 |
| Total Used | 148.7 |
| Total Remaining | 51.3 |

16M030 Flight Reports

| Date | Flt # | Purpose of Flight | Duration | Running Total | Hours Remaining | Miles Flown |
|-------------------------------------|--|-------------------|----------|---------------|-----------------|-------------|
| 03/22/16 | ICF1 | Check | 2 | 2 | 198 | |
| 03/23/16 | ICF2 | Check | 3.4 | 5.4 | 194.6 | |
| 04/12/16 | ICF3 | Check | 1.3 | 6.7 | 193.3 | |
| 04/15/16 | Repo 1 | Ferry | 0.5 | 7.2 | 192.8 | |
| 04/16/16 | Repo 2 | Ferry | 2.9 | 10.1 | 189.9 | |
| 04/18/16 | Repo 3 | Ferry | 7.1 | 17.2 | 182.8 | |
| 04/19/16 | Sea Ice Eureka | Science | 7.3 | 24.5 | 175.5 | |
| 04/20/16 | Sea Ice Laxon Line | Science | 8.7 | 33.2 | 166.8 | |
| 04/21/16 - 04/22/16 | Sea Ice SIZRS Zigzag | Science | 8.3 | 41.5 | 158.5 | |
| 04/30/16 | Sea Ice South Basin Transect | Science | 8.8 | 50.3 | 149.7 | |
| 05/03/16 | Sea Ice North Pole Transect | Science | 7.6 | 57.9 | 142.1 | |
| 05/04/16 | Sea Ice South Canada Basin | Science | 7.9 | 65.8 | 134.2 | |
| 05/09/16 | Land Ice Zachariae-79N | Science | 7.6 | 73.4 | 126.6 | |
| 05/10/16 | Land Ice Northwest Coastal A | Science | 6 | 79.4 | 120.6 | |
| 05/11/16 | Land Ice Umanaq B | Science | 7.1 | 86.5 | 113.5 | |
| 05/12/16 | Land Ice Southeast Coastal | Science | 7.3 | 93.8 | 106.2 | |
| 05/13/16 | Land Ice Helheim-Kangerdlugssuaq | Science | 7.8 | 101.6 | 98.4 | |
| 05/14/16 | Land Ice SW Coastal A | Science | 7.8 | 109.4 | 90.6 | |
| 05/16/16 | Land Ice Thomas-Jakobshavn 01 | Science | 7.9 | 117.3 | 82.7 | |
| 05/17/16 | Land Ice Helheim-Kangerdlugssuaq Gap B | Science | 8.1 | 125.4 | 74.6 | |
| 05/18/16 | Land Ice IceSat-2 Central | Science | 7.7 | 133.1 | 66.9 | |

| | | | | | |
|--------------------------|---------------------------|---------|-----|-------|------|
| 05/19/16 | Land Ice East Glaciers 01 | Science | 7.1 | 140.2 | 59.8 |
| 05/21/16 | Ferry BGSF_KMCF | Ferry | 8.5 | 148.7 | 51.3 |

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 - Other: NOAA P-3 05/04/16 Science Report

Mission: OIB

Mission Summary:

OIB flew the South Canada Basin sea ice mission. This mission enhances the sampling in the large region between the Laxon Line and South Basin Transect. The beginning portion of the line was heavily consolidated sea ice with no leads spotted until about 30 minutes into the flight, then sporadically thereafter. This campaign the ATM team installed a new mechanism to control the laser power in flight from their operating station. As we passed over some of the larger leads the team members quickly increased the laser power to mitigate data drop outs, though this may saturate waveforms over snow-covered ice near the leads. This will be very beneficial for the flight since there were fewer leads and the narrow scan ATM laser is not onboard. The first leg of the line was flown under clear skies, but thick clouds were encountered along the southwest part of the line of the second leg.

DMS lost about 15 minutes of data due to camera lock at end of the flight line (in clear air portion). A ramp pass was conducted but under cloudy conditions.

Data volumes:

ATM: 30 Gb some window contamination probable later in flight

FLIR: 4 Gb

DMS: 84 Gb (15 minutes of lost data due to camera problem, plus 1 hr of clouds)

Ku-Band Radar: 144 Gb

MCoRDS: 123 Tb, experimental sea ice data collection

Snow Radar: 144 Gb

BESST: (system error caused loss of data collection 17 minutes after time on)

Total data collection time: 7.1 hrs, 70% lidar coverage

File:

 [siscanadabasin.pdf](#)

Submitted by: Nathan T. Kurtz on 05/04/16

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