

Other: NOAA P-3 04/19/16

Aircraft: Other: NOAA P-3 - 16M030
Flight Number: Sea Ice Eureka
Payload Configuration: OIB-Spring 2016
Nav Data Collected: No
Total Flight Time: 7.3 hours
Submitted by: John Woods on 04/19/16
Flight Segments:

From:	BGTL	To:	BGTL
Start:	04/19/16 11:10 Z	Finish:	04/19/16 18:30 Z
Flight Time:	7.3 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 04/19/16 Science Report

Mission: OIB

Mission Summary:

IceBridge flew the sea ice Eureka flight line, the purpose of which was to obtain cal/val data coincident with a survey team from Environment and Climate Change Canada taking ground measurements of snow depth. Weather was quite good overall on the survey line near Eureka with some clouds present at the southern end of the flight line, although the clouds were optically thin enough for the ATM instrument to range through. At the beginning of the mission we flew a line in the Nares Strait to obtain data over smooth snow-free ice and open water to determine the transmit pulse shape of the snow/Ku radars from coherent scattering returns, but found only wind-roughened water and snow-covered ice which were not suitable targets. Having spotted more suitable ice earlier on the high altitude transit from Thule, we broke off the beginning line early to save time, then obtained good data on the return transit to Thule passing over a section of newly frozen sea ice. Conditions of the Eureka survey line appeared to be generally smooth ice with minor topographic features, but a few more deformed ice areas were spotted which should make for some variety of surface roughness in the data set. Unlike the overflight of this same survey area in 2014, we did not spot the ground team underneath us this time, but did see evidence of activity from the teams on the surface.

ATM: 44 Gb some window contamination later in flight

FLIR: 4Gb

DMS: 41 Gb

Ku-Band Radar: 75 Gb: Data rate was lowered on this flight due to a malfunction in the radar data storage system, a back-up system with a lower data rate was used instead

MCoRDS: 0 Tb

Snow Radar: 75 Gb

BESST: (write error caused loss of data collection 1 hour after instrument turn on)

Total data collection time: 6.0 hrs

File:

 [sieureka.pdf](#)

Submitted by: Nathan T. Kurtz on 04/30/16

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