

OIB - C-130H Hercules #439 05/11/15 Science Report

Date: Monday, May 11, 2015

Mission: OIB

Mission Location: Thule, Greenland

Mission Summary:

Mission: Northwest Glaciers 01 (priority: baseline)

This mission is a repeat of 2009, 2010, 2011, 2012 and 2014 IceBridge mission. It focuses on the upper Baffin Bay coast, with targeted longitudinal surveys of 12 glaciers in the region and repeats of long-established ATM dh/dt lines which were not targeted at outlet glaciers, but instead were intended to track inland spread of coastal thinning.

Weather imagery this morning showed suitable weather for flying both this mission, and our other remaining baseline-priority mission, known as "Zachariae-79N". However forecasts for the next few days showed the area along the Baffin Bay coast south of Thule worsening tomorrow with the approach of a low-pressure system from the south, while the northeast would likely stay good. Therefore we selected this flight. We encountered clear skies except for some dense coastal fog which obscured the bottom 1-5 km of the Alison, Tasiusaq, and Upernavik Glaciers.

All instruments performed normally today, with the exception of the ATM T5 (narrow scan) laser controller, which occasionally powered itself off for unknown reasons. The ATM team is investigating the root cause and remedies.

We conducted a ramp overflight at 2000' AGL.

Data volumes:

ATM: 25 Gb

CAMBOT: 85 Gb

DMS: 121 Gb

Ku-Band Radar: 238 Gb

MCoRDS: 1.9 Tb

Narrow Swath ATM: 29 Gb

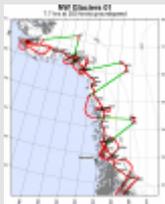
NSERC Onboard Data: TBD

Snow Radar: 238 Gb

total data collection time: 7.4 hrs

Images:

Map of Northwest Glaciers 01



[Read more](#)

Islands near Thule



[Read more](#)

Coastal fog



[Read more](#)

Submitted by: John Sonntag on 05/11/15

Related Flight Report:

C-130H Hercules #439 05/11/15

Flight Number: Northwest Glaciers 01

Payload Configuration: OIB

Nav Data Collected: No

Total Flight Time: 7.8 hours

Submitted by: Luci Crittenden on 05/11/15

Flight Segments:

From:	BGTL	To:	BGTL
Start:	05/11/15 10:45 Z	Finish:	05/11/15 18:35 Z
Flight Time:	7.8 hours		
Log Number:	151002	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Baseline priority mission "Northwest Glaciers 01" completed today.		

Flight Hour Summary:

	151002
Flight Hours Approved in SOFRS	334.4
Total Used	297.6
Total Remaining	36.8

151002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/12/15	ATF	Check	1.5	1.5	332.9	
03/13/15	PTF - GPS	Check	2	3.5	330.9	
03/13/15	PTF - Radar #1	Check	0.8	4.3	330.1	
03/13/15 - 03/14/15	PTF - Radar #2	Check	4.5	8.8	325.6	
03/16/15	PTF - Radar #3	Check	2.4	11.2	323.2	
03/17/15	Transit	Transit	7.8	19	315.4	
03/19/15	Nansen Gap	Science	7.4	26.4	308	
03/24/15	Sea Ice - Zigzag East	Science	8.2	34.6	299.8	
03/25/15	Sea Ice North Pole Transect - Thule	Science	8.2	42.8	291.6	
03/26/15	Sea Ice - Laxon Line	Science	9.2	52	282.4	
03/27/15 - 03/28/15	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2	
03/29/15 - 03/30/15	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3	
03/30/15 - 03/31/15	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2	
04/01/15	Sea Ice - South Basin Transect	Science	8.8	86	248.4	

04/03/15	Sea Ice - South Canada Basin	Science	7.4	93.4	241
04/06/15	OIB Transit from BGTL-BGSF	Transit	3.3	96.7	237.7
04/08/15	Helheim-Kangerdlussuaq	Science	8	104.7	229.7
04/09/15	K-EGIG Summit	Science	8.3	113	221.4
04/10/15	Southeast Glaciers 01	Science	8	121	213.4
04/11/15	East Glaciers 01	Science	8	129	205.4
04/13/15	Southeast Coastal	Science	7.7	136.7	197.7
04/14/15	Helheim-Kangerdlussuaq Gap B	Science	7.9	144.6	189.8
04/17/15	Umanaq B	Science	7.5	152.1	182.3
04/18/15	Southwest Coast A	Science	8.1	160.2	174.2
04/20/15	Penny 01	Science	6.3	166.5	167.9
04/21/15	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
04/22/15	Southeast Flank 01	Science	7.6	182.8	151.6
04/23/15	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
04/24/15	Geikie 02	Science	8.3	200.3	134.1
04/25/15	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
04/27/15	Southwest Coastal B	Science	8	215.2	119.2
04/28/15	Southeast Glaciers 02	Science	7	222.2	112.2
04/29/15	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
04/30/15	ATM Laser Repair Checkout	Science	2.3	227	107.4
05/01/15	NW Coastal A	Science	7.2	234.2	100.2
05/05/15	IceSat-2 North / CryoSat-2 SARIn	Science	8.2	242.4	92
05/06/15	North Glaciers 01	Science	8.2	250.6	83.8
05/07/15	Devon-Barnes 01	Science	7.8	258.4	76
05/08/15	Zigzag West	Science	7.2	265.6	68.8
05/11/15	Northwest Glaciers 01	Science	7.8	273.4	61
05/12/15	North-Central Gap 02	Science	8.1	281.5	52.9
05/15/15	North-Central Gap 01	Science	7.3	288.8	45.6
05/21/15	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
05/22/15	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

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.

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

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