

## OIB - C-130H Hercules #439 05/06/15 Science Report

**Date:** Wednesday, May 6, 2015

**Mission:** OIB

**Mission Location:** Thule, Greenland

**Mission Summary:**

Mission: North Glaciers 01 (priority: medium)

This mission is designed to resurvey historical ATM longitudinal surveys of several glaciers in northern Greenland, including Steensby, Ryder, and Hagen Glaciers. The maneuver connecting lower Steensby and Ryder glaciers has been modified to collect straight-line data over the fjords for better gravity data. It also re-occupies ATM lines on the Flade Ice Cap, near Station Nord, and returns to Thule along the British North Greenland Expedition traverse line, which was also flown by ATM in 2002. We also add two new glacier centerlines for small glaciers draining the Flade Isblink.

The weather across northern Greenland was somewhat poor this morning, due to a weakening but still widespread low-pressure system on the west-central flank of the Greenland Ice Sheet, and also due to very widespread coastal fog all around Greenland's northern perimeter. An exception was the northernmost extremity of the ice sheet, but the coastal fog was still a concern. The water-vapor satellite image from this morning showed the fog to be somewhat offshore of the glaciers addressed in this mission, so we selected it. In fact the fog did remain offshore and we successfully collected data over almost the entire line. The only exception was the area around Camp Century, just inland of Thule, which was clouded.

All instruments performed normally today.

We conducted a ramp overflight at 2000' AGL.

Data volumes:

ATM: 27 Gb

CAMBOT: 92 Gb

DMS: 138 Gb

Ku-Band Radar: 215 Gb

MCoRDS: 2.0 Tb

Narrow Swath ATM: 37 Gb

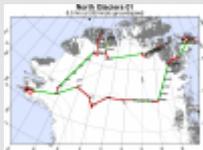
NSERC Onboard Data: TBD

Snow Radar: 215 Gb

total data collection time: 7.8 hrs

**Images:**

### Map of North Glaciers 01



[Read more](#)

### Steensby Glacier



[Read more](#)

### Moulin on Ryder Glacier



[Read more](#)

## Hagen Glacier icebergs



[Read more](#)

Submitted by: John Sonntag on 05/06/15

Related Flight Report:

## C-130H Hercules #439 05/06/15

**Flight Number:** North Glaciers 01

**Payload Configuration:** OIB

**Nav Data Collected:** No

**Total Flight Time:** 8.2 hours

**Submitted by:** Luci Crittenden on 05/06/15

**Flight Segments:**

<b>From:</b>	BGTL	<b>To:</b>	BGTL
<b>Start:</b>	05/06/15 10:50 Z	<b>Finish:</b>	05/06/15 19:00 Z
<b>Flight Time:</b>	8.2 hours		
<b>Log Number:</b>	<a href="#">151002</a>	<b>PI:</b>	Michael Studinger
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	Completed medium priority North Glaciers 01 mission.		

**Flight Hour Summary:**

	<b>151002</b>
<b>Flight Hours Approved in SOFRS</b>	334.4
<b>Total Used</b>	297.6
<b>Total Remaining</b>	36.8

**151002 Flight Reports**

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">03/12/15</a>	ATF	Check	1.5	1.5	332.9	
<a href="#">03/13/15</a>	PTF - GPS	Check	2	3.5	330.9	
<a href="#">03/13/15</a>	PTF - Radar #1	Check	0.8	4.3	330.1	
<a href="#">03/13/15 - 03/14/15</a>	PTF - Radar #2	Check	4.5	8.8	325.6	
<a href="#">03/16/15</a>	PTF - Radar #3	Check	2.4	11.2	323.2	
<a href="#">03/17/15</a>	Transit	Transit	7.8	19	315.4	
<a href="#">03/19/15</a>	Nansen Gap	Science	7.4	26.4	308	
<a href="#">03/24/15</a>	Sea Ice - Zigzag East	Science	8.2	34.6	299.8	

<a href="#">03/25/15</a>	Sea Ice North Pole Transect – Thule	Science	8.2	42.8	291.6
<a href="#">03/26/15</a>	Sea Ice - Laxon Line	Science	9.2	52	282.4
<a href="#">03/27/15 - 03/28/15</a>	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
<a href="#">03/29/15 - 03/30/15</a>	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
<a href="#">03/30/15 - 03/31/15</a>	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
<a href="#">04/01/15</a>	Sea Ice - South Basin Transect	Science	8.8	86	248.4
<a href="#">04/03/15</a>	Sea Ice - South Canada Basin	Science	7.4	93.4	241
<a href="#">04/06/15</a>	OIB Transit from BGTL-BGSF	Transit	3.3	96.7	237.7
<a href="#">04/08/15</a>	Helheim- Kangerdlussuag	Science	8	104.7	229.7
<a href="#">04/09/15</a>	K-EGIG Summit	Science	8.3	113	221.4
<a href="#">04/10/15</a>	Southeast Glaciers 01	Science	8	121	213.4
<a href="#">04/11/15</a>	East Glaciers 01	Science	8	129	205.4
<a href="#">04/13/15</a>	Southeast Coastal	Science	7.7	136.7	197.7
<a href="#">04/14/15</a>	Helheim- Kangerdlussuaq Gap B	Science	7.9	144.6	189.8
<a href="#">04/17/15</a>	Umanaq B	Science	7.5	152.1	182.3
<a href="#">04/18/15</a>	Southwest Coast A	Science	8.1	160.2	174.2
<a href="#">04/20/15</a>	Penny 01	Science	6.3	166.5	167.9
<a href="#">04/21/15</a>	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
<a href="#">04/22/15</a>	Southeast Flank 01	Science	7.6	182.8	151.6
<a href="#">04/23/15</a>	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
<a href="#">04/24/15</a>	Geikie 02	Science	8.3	200.3	134.1
<a href="#">04/25/15</a>	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
<a href="#">04/27/15</a>	Southwest Coastal B	Science	8	215.2	119.2
<a href="#">04/28/15</a>	Southeast Glaciers 02	Science	7	222.2	112.2
<a href="#">04/29/15</a>	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
<a href="#">04/30/15</a>	ATM Laser Repair Checkout	Science	2.3	227	107.4
<a href="#">05/01/15</a>	NW Coastal A	Science	7.2	234.2	100.2
<a href="#">05/05/15</a>	IceSat-2 North / CryoSat-2 SARIn	Science	8.2	242.4	92
<a href="#">05/06/15</a>	North Glaciers 01	Science	8.2	250.6	83.8
<a href="#">05/07/15</a>	Devon-Barnes 01	Science	7.8	258.4	76
<a href="#">05/08/15</a>	Zigzag West	Science	7.2	265.6	68.8
<a href="#">05/11/15</a>	Northwest Glaciers 01	Science	7.8	273.4	61
<a href="#">05/12/15</a>	North-Central Gap 02	Science	8.1	281.5	52.9
<a href="#">05/15/15</a>	North-Central Gap 01	Science	7.3	288.8	45.6
<a href="#">05/21/15</a>	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
<a href="#">05/22/15</a>	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.*

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NASA Official: Bruce A. Tagg

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