OIB - C-130H Hercules #439 05/08/15 Science Report

Date: Friday, May 8, 2015
Mission: OIB
Mission Location: Thule, Greenland
Mission Summary:

Mission: Sea Ice - Zigzaq West (priority: high/medium)

This mission is a modified version of the similar Zigzag West flight flown in prior years. It is intended to sample the thick multi-year ice near the Ellesmere coast as well as the gradient to thinner ice closer to the pole. We substituted CryoSat-2 ascending track #26934 for the easternmost leg of this flightline, and we were on the line when the spacecraft passed overhead at 12:23:34z. In addition to Level 1 Requirements SI1 and SI2, the mission addresses sea ice level 1 baseline requirement SI3b by sampling thick multi-year ice near the northern coast of Ellesmere Island and the poleward gradient towards thinner ice.

Weather over most of northern Greenland was again poor today, with low pressure and clouds still influencing the west, and low clouds and coastal fog over much of the north and east. Meanwhile the widespread fog that had been in place over almost the entire Arctic Basin for more than a week parted somewhat over the last two days. Much of the Canada Basin was clear, but the southern portion, including the area selected for a SARAL spacecraft underflight today, was still mostly under a widespread fog bank. We instead selected the Lincoln Sea and northern Canada Basin for a mission, which the morning satellite images showed to be mostly fog-free, with some high clouds overhead. We encountered several small and isolated fog banks, but successfully collected data for more than 90% of the route.

All instruments performed normally today.

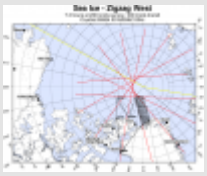
We conducted a ramp overflight at 4000' AGL.

Data volumes:
ATM: 19 Gb
CAMBOT: 79 Gb
DMS: 113 Gb
Ku-Band Radar: 105 Gb
MCoRDS: 829 Gb
Narrow Swath ATM: 35 Gb
NSERC Onboard Data: TBD
Snow Radar: 105 Gb

total data collection time: 4.3 hrs

Images:

Map of Sea Ice - Zigzag West



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Weather satellite image from this morning

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Fogbank off Ellesmere Island

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Submitted by: John Sonntag on 05/08/15
Related Flight Report:

C-130H Hercules #439 05/08/15

Flight Number: Zigzag West
Payload Configuration: OIB
Nav Data Collected: No
Total Flight Time: 7.2 hours
Submitted by: Luci Crittenden on 05/08/15
Flight Segments:

From:	BGTL	**To:**	BGTL
Start:	05/08/15 10:50 Z	**Finish:**	05/08/15 18:00 Z
Flight Time:	7.2 hours		
Log Number:	151002	**PI:**	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Zigzag West (modified from previous years)mission completed today. No fly day tomorrow (Saturday) due to runway closure. Sunday is a hard down day for crew rest. Next flight planned for Monday, May 11.		

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-Kangerdlussuag	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

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