

HU-25C Guardian 10/05/15

Aircraft: [HU-25A Guardian - LaRC #525](#) (See full schedule)

Flight Number: OIB2015 Arctic Sea Ice East

Payload Configuration: ATM & DMS

Nav Data Collected: No

Total Flight Time: 3.8 hours

Submitted by: Luci Crittenden on 10/05/15

Flight Segments:

From:	BGTL	To:	BGTL
Start:	10/05/15 15:50 Z	Finish:	10/05/15 19:37 Z
Flight Time:	3.8 hours		
Log Number:	16F002	PI:	John Woods
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryospheric Science		
Purpose of Flight:	Science		
Comments:	OIB completed a second sea ice flight this afternoon out of Thule, Greenland. This was the Sea Ice East Mission. Next flight scheduled for tomorrow, Tuesday, October 6th, weather permitting.		

Flight Hour Summary:

	15F005	16F002
Flight Hours Approved in SOFRS	100	
Flight Hours Previously Approved		67.4
Total Used	32.6	65.3
Total Remaining		2.1

16F002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
10/05/15	OIB2015 Arctic Sea Ice Central	Science	3.6	3.6	63.8	
10/05/15	OIB2015 Arctic Sea Ice East	Science	3.8	7.4	60	
10/06/15	OIB2015 Arctic Ice-Sat2 North	Science	4	11.4	56	
10/07/15	OIB2015 Arctic Transit Thule to Kangerlussuaq	Transit	2	13.4	54	
10/08/15	OIB2015 Arctic Southwest Coastal A	Science	3.8	17.2	50.2	
10/08/15	OIB2015 Arctic Thomas-Jakobshavn 01	Science	3.7	20.9	46.5	
10/09/15	OIB2015 Arctic Umanaq B	Science	3.9	24.8	42.6	
10/13/15	OIB2015 Arctic Jakobshavn Equip Store	Science	2.9	27.7	39.7	
10/13/15	OIB2015 Arctic Southeast Coastal A	Science	3.6	31.3	36.1	
10/18/15	OIB2015 Arctic Southeast Coastal B	Science	4.1	35.4	32	
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq	Science	3.7	39.1	28.3	
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq Gap B	Science	3.9	43	24.4	
10/20/15	OIB2015 Arctic Jakobshavn Mop-Up	Science	3.7	46.7	20.7	
10/20/15	OIB2015 Arctic Southwest Coastal B	Science	3.7	50.4	17	
10/21/15	OIB2015 Arctic Southwest Coastal C	Science	3.4	53.8	13.6	

10/21/15	OIB2015 Arctic K-EGIG-Summit	Science	3.7	57.5	9.9
10/22/15	OIB2015 Arctic Mopup South	Science	2	59.5	7.9
10/22/15	OIB2015 Arctic Ferry BGSF-CYYR	Ferry	2.2	61.7	5.7
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	3.3	65	2.4
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	0.3	65.3	2.1

Source URL: https://airbornescience.nasa.gov/flight_reports/HU-25C_Guardian_10_05_15_0#comment-0

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Bruce A. Tagg

Related Science Report:

OIB - HU-25C Guardian 10/05/15 Science Report

Mission: OIB

Mission Summary:

Mission: Falcon Sea Ice East (priority: high)

This flight is based on the western "bunny ear" of the spring 2015 "ZigZag East" mission, with the flight line adjusted slightly to improve coverage over what may be some unusually young and thin ice east of Cape Morris Jessup. The portion of this flight running through the northern Nares Strait is coincident with a SIMPL flight line from their August 2015 campaign. We also underfly a contemporaneous CryoSat-2 orbit at the far eastern end of the flightline, near Cape Morris Jessup.

Weather over the eastern Lincoln Sea continued to improve during the day today, as the south wind descending from northern Greenland's ice sheet dried the air mass and dissolved the low clouds observed in the morning satellite image. We encountered some haze throughout the flight and a few minutes of low-level stratus at the northeastern apex of the flightline, but otherwise had no problems with visibility to the surface. We successfully obtained data over at least 95% of the flight line.

All instruments performed well during the flight. Since we flew north and east during Thule's afternoon period, we again flew away from the sun and encountered sun elevations below the horizon at the eastern sector of the flight line. This was unavoidable since we needed to time this flight to coincide with the CryoSat-2 overpass. DMS captured useable imagery even at the lowest sun angles, however.

The CryoSat-2 spacecraft flew directly over us, overtaking us from behind, at 17:39:48z, on orbit #29114 (and between our waypoints 29114C and 29114D). We timed our entire suite of activities today to coincide with this event, and it worked out perfectly.

We conducted a ramp pass at 5000' MSL.

Data volumes:

DMS: 14.0 Gb

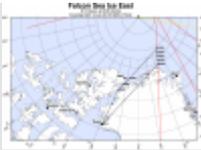
Narrow Swath ATM: 21 Gb

FLIR: 1.9 Gb

total data collection time: 3.6 hrs

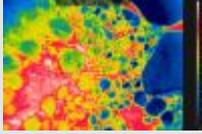
Images:

Map of Falcon - Sea Ice East



[Read more](#)

FLIR image of sea ice in Nares Strait



[Read more](#)

Submitted by: John Sonntag on 10/05/15

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.

15F005 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
09/15/15	OIB #1	Check	2.7	2.7	97.3	
09/20/15	OIB #2, 3, 4	Ferry	2.7	5.4	94.6	
09/21/15	OIB #2, 3, 4	Ferry	2.3	7.7	92.3	
09/21/15	OIB #2, 3, 4	Ferry	2	9.7	90.3	
09/23/15	OIB2015 Arctic North Central Gap 02	Science	3.9	13.6	86.4	
09/24/15	OIB2015 Arctic Northwest Coastal A	Science	3.7	17.3	82.7	
09/25/15	OIB2015 Arctic Northwest Coastal B	Science	3.8	21.1	78.9	
09/28/15	OIB2015 Arctic Sea Ice West	Science	3.7	24.8	75.2	
09/30/15	OIB2015 Arctic North Central Gap 01	Science	3.9	28.7	71.3	
09/30/15	OIB2015 Arctic Zachariae-79N	Science	3.9	32.6	67.4	