

OIB - HU-25A Guardian #524 07/18/17 Science Report

Aircraft: [HU-25A Guardian - LaRC #524](#) (See full schedule)

Date: Tuesday, July 18, 2017

Mission: OIB

Mission Location: Greenland

Mission Summary:

OIB flew the West Central sea ice mission today. This mission re-flew portions of the Zig Zag West and South Basin Transect missions in the spring (using ice motion tracking data provided by Ed Blanchard-Wrigglesworth to design our flight path) to assess changes in sea ice thickness between the spring and summer. The local weather forecast for this morning prevented an earlier take-off as it was below our minimums, but improved enough later in the day for us to conduct a mission.

This was a difficult mission decision as we knew clouds would be closing in as the day went on, but did appear good enough to launch the mission. Clouds were indeed present throughout the flight, but good data was collected along about half of the westernmost line which flew over ice from the Zig Zag West mission in the spring. The northernmost portion of the line along the spring South Basin Transect was completely cloud covered. The easternmost line was covered with clouds during the beginning and end portions, but overall good data was collected for about half of the line. The mission was flown at 2500 feet throughout to avoid cloud contamination of the ATM start pulse. High altitude data over Ellesmere Island was also collected during the outbound transit as the area was largely clear.

Overall, it was worth launching the mission given the weather situation for the Arctic today.

Data volumes/time

ATM: 54.1 Gb

FLIR: 4.4 Gb

DMS: 21.9 Gb

Headwall: 33 Gb

data on: 1437

data off: 1633

Submitted by: Nathan T. Kurtz on 07/18/17

File:

 [west_central_map.pdf](#)

Related Flight Report:

HU-25A Guardian #524 07/18/17

Flight Number: OIB Summer Science Data Flight #2

Payload Configuration: ATM

Nav Data Collected: No

Total Flight Time: 3.7 hours

Submitted by: Luci Crittenden on 07/18/17

Flight Segments:

From:	BGTL	To:	BGTL
Start:	07/18/17 14:03 Z	Finish:	07/18/17 17:44 Z
Flight Time:	3.7 hours		
Log Number:	17F001	PI:	Nathan Kurtz
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryospheric Science		
Purpose of Flight:	Science		
Comments:	OIB flew the West Central sea ice mission today. The local weather forecast for this morning prevented an earlier take-off as it was below our minimums, but improved enough later in the day for us to conduct a mission. A MARS TV photographer again filmed parts of the mission in flight.		

Flight Hour Summary:

17F001

Flight Hours Approved in SOFRS	44.2
Total Used	39.5
Total Remaining	4.7

17F001 Flight Reports						
Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
07/10/17	OIB Summer Science ICF	Check	3.7	3.7	40.5	
07/12/17	2017 OIB Summer Science Transit	Transit	2.9	6.6	37.6	
07/12/17	2017 OIB Summer Science Transit	Transit	2.3	8.9	35.3	
07/13/17	2017 OIB Summer Science Transit BGSF-BGTL	Transit	1.9	10.8	33.4	
07/17/17	OIB Summer Science Data Flight#1	Science	3.8	14.6	29.6	
07/18/17	OIB Summer Science Data Flight #2	Science	3.7	18.3	25.9	
07/19/17	OIB Summer Science Data Flight #3	Science	2.7	21	23.2	
07/24/17	OIB Summer Science Data Flight #4	Science	3.9	24.9	19.3	
07/25/17	OIB Summer Science Data Flight #5 & #6	Science	3.7	28.6	15.6	
07/25/17	OIB Summer Science Data Flight #5 & #6	Science	3.5	32.1	12.1	
07/26/17	OIB Transit Legs BGTL-BGSF-KBGR	Transit	2	34.1	10.1	
07/26/17	OIB Transit Legs BGTL-BGSF-KBGR	Transit	3.7	37.8	6.4	
07/27/17	OIB Transit Leg KBGR-KLFI	Transit	1.7	39.5	4.7	

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

NASA Official: Bruce A. Tagg

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