

P-3 Orion 05/20/14

Aircraft:

P-3 Orion - WFF ([See full schedule](#))

Flight Number:

Science Flight - Northwest Mopup

Payload Configuration:

Operation IceBridge

Nav Data Collected:

Yes

Total Flight Time:

6.5 hours

Submitted by:

Luci Crittenden on 05/20/14

Flight Segments:

From:	BGTL	To:	BGTL
Start:	05/20/14 12:25 Z	Finish:	05/20/14 18:57 Z
Flight Time:	6.5 hours		
Log Number:	14P008	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	OIB completed a Northwest Mopup Mission today. Take-off was delayed 1.5 hours to allow the MCords Radar time to troubleshoot some issues with their instrument. Last mission for this year's Arctic campaignis scheduled for tomorrow, 21 May. Thursday will be a pack day. P-3 will transit back to Wallops on Friday.		

Flight Hour Summary:

	14P008
Flight Hours Approved in SOFRS	369
Total Used	354.1
Total Remaining	14.9

14P008 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/06/14	1767	Check	1.3	1.3	367.7	
03/06/14	1768	Check	2.7	4	365	
03/07/14	1769	Check	5.7	9.7	359.3	
03/10/14	WFF to Thule Transit	Transit	8.1	17.8	351.2	
03/12/14	Sea Ice - Nansen Gap	Science	7.6	25.4	343.6	
03/13/14	Sea Ice - Zig Zag East	Science	7.7	33.1	335.9	
03/14/14	Thule - Fairbanks Transit: Sea Ice - Laxon Line	Science	8.8	41.9	327.1	
03/15/14 - 03/16/14	Sea Ice - SIZRS ZigZag	Science	8.1	50	319	
03/17/14 - 03/18/14	Sea Ice - North Beaufort Loop - with Barrow	Science	8.2	58.2	310.8	
03/18/14 - 03/19/14	F06 Sea Ice - East Beaufort - with ONR/MIZ/CryoVEx camp	Science	8.2	66.4	302.6	
03/19/14 - 03/20/14	F07 Sea Ice - Beaufort - Chukchi Diamond	Science	8.3	74.7	294.3	
03/21/14	F08: Sea Ice ? South Basin Transect	Science	8.5	83.2	285.8	
03/24/14	F09: Sea Ice ? Giles Gateway	Science	8	91.2	277.8	
03/25/14	F10 - Axel Heiberg-Eureka	Science	3	94.2	274.8	
03/26/14	F11 - Zigzag West	Science	7.9	102.1	266.9	

03/28/14	Sea Ice ? South Canada Basin	Science	7	109.1	259.9
03/31/14	F13 Sea Ice ? CryoVEx Nord	Science	7.3	116.4	252.6
04/03/14	F15 Sea Ice - North Canada Basin	Science	8.2	124.6	244.4
04/04/14	Transit from Thule to Kangerlussuaq	Transit	2.8	127.4	241.6
04/05/14	Science Flight #16 - East Glaciers	Science	7.8	135.2	233.8
04/07/14	Science Flight - Southwest Coastal A	Science	7.7	142.9	226.1
04/08/14	Science Flight - Southeast Glacier 01	Science	7.6	150.5	218.5
04/09/14	Science Flight - Jakobshaven Glacier 01	Science	8	158.5	210.5
04/10/14	Science Flight - K-EGIG Summit Mission	Science	7.9	166.4	202.6
04/12/14	Science Flight - OSU Clusters	Science	6.6	173	196
04/14/14	Science Flight - Jakobshavn-Eqip-Store	Science	7.7	180.7	188.3
04/15/14	Science Flight - Southwest Glacier 01	Science	7.3	188	181
04/16/14	Science Flight - IceSat 2 Central	Science	8.4	196.4	172.6
04/19/14	Science Flight - Jakobshaven 02	Science	6.4	202.8	166.2
04/21/14	Science Flight - Geikie Glacier 01	Science	8.6	211.4	157.6
04/23/14	Science Flight - Baffin 02	Science	6	217.4	151.6
04/24/14	Science Flight - Helheim-Kangerd	Science	8.2	225.6	143.4
04/25/14	Transit Flight - Kangerlussuaq to Thule	Transit	2.6	228.2	140.8
04/26/14	Science Flight - NW Glacier 02 Mop-Up	Science	5.6	233.8	135.2
04/28/14	Science Flight - North Pole Transect	Science	7.3	241.1	127.9
04/29/14	Science Flight - Northeast Glaciers 01	Science	7.8	248.9	120.1
04/30/14	Science Flight - Northeast Grid 01	Science	2.6	251.5	117.5
05/01/14	Science Flight - Humboldt 01	Science	5.5	257	112
05/02/14	Science Flight - Cryosat Land	Science	7	264	105
05/05/14	Science Flight - IceSat 2 - North	Science	8	272	97
05/07/14	Science Flight - NW Glaciers 01	Science	8	280	89
05/08/14	Science Flight - North Central Gap 01	Science	8	288	81
05/09/14	Science Flight - NW Coastal B	Science	6.9	294.9	74.1
05/12/14	Science Flight - Alexander-Petermann 01	Science	7	301.9	67.1
05/14/14	Science Flight - Northeast Grid 01	Science	7.7	309.6	59.4
05/15/14	Science Flight - Northeast Grid 06	Science	8	317.6	51.4
05/16/14	Science Flight - NW Coastal C	Science	6.1	323.7	45.3
05/19/14	Science Flight - North Glaciers 02 Prime	Science	8	331.7	37.3

05/20/14	Science Flight - Northwest Mopup	Science	6.5	338.2	30.8
05/21/14	Science Flight - Northeast Grid 04	Science	7.9	346.1	22.9
05/23/14	Transit Flight - Thule to Wallops	Transit	7.5	353.6	15.4
05/23/14	Transit Flight - Thule to Wallops	Transit	0.5	354.1	14.9

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.

Related Science Report:

OIB - P-3 Orion 05/20/14 Science Report

Mission:

OIB

Mission Summary:

F45 Northwest Mopup

Accomplishments

- Low-altitude survey (1,500 ft AGL) over northern Greenland.
- ATM, albedo, KT-19, snow, Ku-band, MCoRDS, and DMS were operated on the survey lines.
- Ramp pass at Thule at 2,000 ft AGL for instrument calibration.
- Pitch maneuvers over sea ice/water in North Star Bay for instrument calibration.
- Satellite tracks: none
- Repeat Mission: yes.

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	57 GB	None.
DMS	yes	82 GB	None.
Snow Radar	yes	375 GB	None.
Ku-band Radar	yes	375 GB	None.
Accumulation Radar	no	N/A	NI system used for MCoRDS. See details in mission report below.
MCoRDS	yes	1.2 TB	See details in mission report below.
KT-19	yes	9 MB	None.
Albedo	yes	5 GB	None.

Mission Report (Michael Studinger, Mission Scientist)

Today's flight was a "mopup" of survey lines that we were not able to complete during previous missions, mostly because of weather over the target areas.

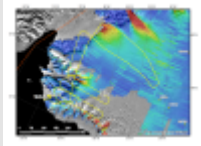
Following the crash of the NI system on MCoRDS yesterday, the decision was made to use the NI system of the accumulation radar for repair on MCoRDS because of a lack of a spare NI system. As a result of this no accumulation data was collected today.

We got overtime approved last night for the crew to allow repair until 8 pm and also delayed takeoff this morning for 1.5 hours to accommodate repair activities on MCoRDS. About half way through the flight the MCoRDS system was mostly up and working. Data was transmitted on 4 channels and all 15 channels recorded data. Data processed during the flight over 2 km thick ice looked good. Tonight, the team will try to address the remaining problems.

LiDAR data collection started 05/20/2014 12:32 UTC and ended at 18:51 UTC. In total we collected 6.3 hours of science data.

Images:

Figure 1: Today's trajectory in yellow.



[Read more](#)

Submitted by:

Michael Studinger on 05/20/14

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