

IceBridge - Gulfstream V - JSC 11/05/19 Science Report

Aircraft:

[Gulfstream V - JSC](#) ([See full schedule](#))

Date:

Tuesday, November 5, 2019

Mission:

OIB

Mission Location:

Antarctic Fall 2019: Hobart, Australia

Mission Summary:

Flight Report: 11/05/19

OUTLOOK FOR TOMORROW: Clear conditions persist in East Antarctica near where we conducted our science mission today. So we have multiple options to choose from for tomorrow. A sea ice mission looks possible towards the end of the week, which we are closely monitoring.

Mission: Cook-Ninnis 02

Priority: **High**

IceBridge was able to fly the high priority land ice mission Cook-Ninnis 02 today. This mission was chosen because clear conditions were finally present along the coast of the Cook and Ninnis glaciers, where previously clouds were prevalent. So today we took this opportunity to fly this high priority mission opposed to other high priority missions farther inland. ?

Forecasts predicted clear skies and light winds for the mission, which were encountered upon arrival. Light to moderate katabatic flow was present over Wilkes Land. Again, forecasts and imagery were accurate. Forecasts thus far during the campaign have proven fairly stable and reliable in this area of Antarctica.

This mission is of importance because it includes and IS-2 track, as a grid pattern that tracks along the coast, and supplements another previous airborne survey ICECAP. This mission is one of four in the area.

During today's flight all instruments performed well with 100% data collection. On the way back to Hobart, OIB was able to perform a deconvolution exercise for MCoRDS at 12,000 feet over a large polynya off Ninnis Glacier, straight and level. A ramp pass was also performed on arrival at Hobart at 1200 feet AGL.

Also to note, the gravimeter team compared data taken during the Rennick flight when the APU failed on the transit back to Hobart, to similar data collected back in 2013 on the P-3 and was a close match. Thus giving us confidence that no issues in data collection occurred on the Rennick mission conducted a few days ago.

ICESat-2 RGT latencies (+/- indicates OIB surveyed after/before ICESat-2):

0428 (+ 12 days)

Data volumes collected during today's mission, which consisted of 3.3 hours of data collection:

ATM: 55 Gb

CAMBOT: 89 Gb

FLIR: 7 Gb

Narrow Swath ATM: 81 Gb green

Narrow Swath ATM: 75 Gb IR

VNIR: 31 Gb

SWIR: 40 Gb

Snow Radar: 727 Gb

MCoRDS: 352 Gb

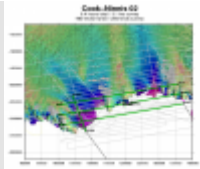
Gravity: 4.5 Gb

This is my last flight report and mission of the IceBridge saga. I am sad to go, but happy of our progress thus far and everyone's hard work and passion for getting this important science done. I wish everyone else in the campaign the best of luck! **?Hooroo Mates!?** (Aussie for ?goodbye friends?).

Images:

Figure 1





[Read more](#)

Figure 2



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Figure 3



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Figure 4



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Figure 5



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Figure 6



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Figure 7



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Submitted by:

Linette Boisvert on 11/06/19

Related Flight Report:

Gulfstream V - JSC 11/04/19 - 11/05/19

Flight Number:

GV-62

Payload Configuration:

OIB

Nav Data Collected:

No

Total Flight Time:

10.3 hours

Submitted by:

Debra Willett on 11/05/19

Flight Segments:

From:	YMHB	To:	YMHB
Start:	11/04/19 21:48 Z	Finish:	11/05/19 08:07 Z
Flight Time:	10.3 hours		
Log Number:	205003	PI:	Joseph MacGregor
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Miles Flown:	4500 miles		

Flight Hour Summary:

	205003
Flight Hours Approved in SOFRS	350
Total Used	248.4
Total Remaining	101.6

205003 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
10/17/19	GV-48	Science	1.9	1.9	348.1	800
10/17/19	GV-49	Science	3.2	5.1	344.9	1400
10/19/19	GV-50	Transit	8.2	13.3	336.7	3600
10/21/19 - 10/22/19	GV-51	Transit	5.3	18.6	331.4	2300
10/22/19	GV-52	Transit	7	25.6	324.4	3100
10/23/19 - 10/24/19	GV-53	Science	10.2	35.8	314.2	4400
10/24/19 - 10/25/19	GV-54	Science	10.1	45.9	304.1	4400
10/26/19 - 10/27/19	GV-55	Science	10.4	56.3	293.7	4500
10/27/19 - 10/28/19	GV-56	Science	10.2	66.5	283.5	4400

10/28/19 - 10/29/19	GV-57	Science	10.1	76.6	273.4	4400
10/29/19 - 10/30/19	GV-58	Science	10	86.6	263.4	4400
10/31/19 - 11/01/19	GV-59	Science	10.2	96.8	253.2	4400
11/02/19 - 11/03/19	GV-60	Science	10.6	107.4	242.6	4600
11/03/19 - 11/04/19	GV-61	Science	9.6	117	233	4200
11/04/19 - 11/05/19	GV-62	Science	10.3	127.3	222.7	4500
11/05/19 - 11/06/19	GV-63	Science	10.2	137.5	212.5	4400
11/07/19 - 11/08/19	GV-64	Science	10	147.5	202.5	4400
11/08/19 - 11/09/19	GV-65	Science	9.5	157	193	4100
11/09/19 - 11/10/19	GV-66	Science	10.2	167.2	182.8	4400
11/13/19 - 11/14/19	GV-67	Science	10.2	177.4	172.6	4400
11/14/19 - 11/15/19	GV-68	Science	10.4	187.8	162.2	4500
11/16/19 - 11/17/19	GV-69	Science	9.9	197.7	152.3	4300
11/17/19 - 11/18/19	GV-70	Science	9.9	207.6	142.4	4300
11/18/19 - 11/19/19	GV-71	Science	10.3	217.9	132.1	4500
11/19/19 - 11/20/19	GV-72	Science	10.4	228.3	121.7	4500
11/20/19 - 11/21/19	GV-73	Science	3.5	231.8	118.2	1500
11/25/19	GV-74	Ferry	5.7	237.5	112.5	2500
11/26/19	GV-75	Ferry	10.9	248.4	101.6	4700

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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