

OIB - Gulfstream V - JSC 10/28/19 Science Report

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

Date: Monday, October 28, 2019

Mission: OIB

Mission Location: Antarctic Fall 2019: Hobart, Australia

Mission Summary:

Flight Report: 10/28/19

OUTLOOK FOR TOMORROW: Katabatic winds off the continent appear to be shifting farther to the west, creating what looks like clear conditions at Casey Station. As the forecast worsens for this area as the week progresses, we might fly the sea ice Casey Mission, which will help to supplement ground snow and ice measurements which will be made in the coming weeks by some members of the IS-2 team.

Mission: Moscow 02

Priority: High

IceBridge successfully completed the high priority land ice mission Moscow 02 today. This science mission was designed to survey parts of the Moscow University Ice Shelf. Moscow 01, another OIB mission, not flown as of yet, will also add valuable data for this region, along with data from an earlier airborne missions ICECAP.

This science mission is designed in a grid-like pattern which supplements this earlier ICECAP project, and also includes an IS-2 tie line and a fluxgate inland of the ice shelf. The Moscow University Ice Shelf was found to have lowered in recent years based on firn processes (Pritchard et al., 2012 Nature), and snow radar data collected today will be important for this area.

Clear skies, as predicted and shown in the forecasts and satellite imagery, in the region enabled us to get 100% data collection. All instruments also performed well with no issues. However, fuel concerns again forced us to cut our survey by about 20 minutes, so we were only able to survey the western two-thirds of the inland flux gate of the mission. MCoRDS collected data during the climb out. We plan on making up these lost data lines in a future 'mop-up' flight. A 1500 foot AGL ramp pass was conducted before landing at Hobart airport.

The Hobart Hutchin's School was visited today by Linette Boisvert and Eugenia DeMarco to talk about ice and OIB. Twelve high school students and 2 teachers were present. It was a '**grouse**' time!

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

0841 (-24 days)

0460 (+26 days)

Data volumes collected during today's mission, which consisted of 2.5 hours of data collection:

ATM: 40 Gb

CAMBOT: 72 Gb

FLIR: 5 Gb

Narrow Swath ATM: 59 Gb green

Narrow Swath ATM: 52 Gb IR

VNIR: 22 Gb

SWIR: 28 Gb

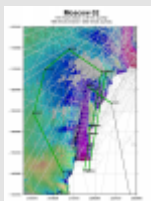
Snow Radar: 529 Gb

MCoRDS: 265 Gb

Gravity: 4.5 Gb

Images:

Figure 1



[Read more](#)

Figure 2



[Read more](#)

Figure 3



[Read more](#)

Submitted by: Linette Boisvert on 11/06/19

Related Flight Report:

Gulfstream V - JSC 10/27/19 - 10/28/19

Flight Number: GV-56

Payload Configuration: OIB

Nav Data Collected: No

Total Flight Time: 10.2 hours

Submitted by: Derek Rutovic on 10/28/19

Flight Segments:

From:	YMHB	To:	YMHB
Start:	10/27/19 21:52 Z	Finish:	10/28/19 08:05 Z
Flight Time:	10.2 hours		
Log Number:	205003	PI:	Joseph MacGregor
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Miles Flown:	4400 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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