

Gulfstream V - JSC 10/24/19 - 10/25/19

Aircraft:

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

Flight Number:

GV-54

Payload Configuration:

OIB

Nav Data Collected:

No

Total Flight Time:

10.1 hours

Submitted by:

Debra Willett on 10/25/19

Flight Segments:

From:	YMHB	To:	YMHB
Start:	10/24/19 22:15 Z	Finish:	10/25/19 08:21 Z
Flight Time:	10.1 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.

Related Science Report:

OIB - Gulfstream V - JSC 10/25/19 Science Report

Mission:

OIB

Mission Summary:

Flight Report: 10/25/19

OUTLOOK FOR TOMORROW: Tomorrow OIB will take a required crew rest day for the GV crew. We will continue to conduct science missions on Sunday. A few possible options already look promising with the current forecasts.

Mission: Holmes-Frost IS-2

Priority: High

IceBridge flew the high priority land ice mission Holmes-Frost IS-2 for its second mission of the campaign today. This mission was designed to fly two ICESat-2 RGT's over slow moving ice in order to get more detailed information with snow radar data of the accumulation and firn layers on the ice. This is of particular importance because reanalysis like MERRA-2 and regional climate models like RACMO have discrepancies accumulation in this area. Reducing uncertainties here, along IS-2 RGTs will help to improve firn modeling and accumulation used in IS-2 surface mass balance estimates. Thus, data collected during this mission today is of great importance.

Conditions were similar to yesterday with katabatic flow off the ice sheet. This scenario causes clear skies in the region of the flow, which was what was encountered during flight. Clouds were again present to the east and west of our targeted mission area. All was smooth sailing during flight except for mild turbulence near the coast.

All instruments performed well today with 100% data collection. A ramp pass was also done at the end of the

mission at 2000 feet AGL.

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

0749 (- 20 days)

0559 (-8 days)

Data volumes collected during today's mission, which consisted of 3.1 hours of data collection:

ATM: 50 Gb

CAMBOT: 121 Gb

FLIR: 7 Gb

Narrow Swath ATM: 76 Gb green

Narrow Swath ATM: 72 Gb IR

VNIR: 27 Gb

SWIR: 39 Gb

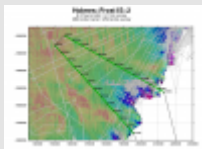
Snow Radar: 622 Gb

MCoRDS: 285 Gb

Gravity: 4.5 Gb

Images:

Figure 1



[Read more](#)

Figure 2



[Read more](#)

Figure 3



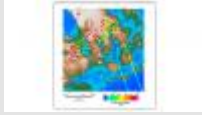
[Read more](#)

Figure 4



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Figure 5



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Submitted by:

Linette Boisvert on 11/05/19

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

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