

## Gulfstream V - JSC 11/02/19 - 11/03/19

**Aircraft:**

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

**Flight Number:**

GV-60

**Payload Configuration:**

OIB

**Nav Data Collected:**

No

**Total Flight Time:**

10.6 hours

**Submitted by:**

Derek Rutovic on 11/03/19

**Flight Segments:**

<b>From:</b>	YMHB	<b>To:</b>	YMHB
<b>Start:</b>	11/02/19 22:12 Z	<b>Finish:</b>	11/03/19 08:46 Z
<b>Flight Time:</b>	10.6 hours		
<b>Log Number:</b>	<a href="#">205003</a>	<b>PI:</b>	Joseph MacGregor
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Miles Flown:</b>	4600 miles		

**Flight Hour Summary:**

	<b>205003</b>
<b>Flight Hours Approved in SOFRS</b>	350
<b>Total Used</b>	248.4
<b>Total Remaining</b>	101.6

**205003 Flight Reports**

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">10/17/19</a>	GV-48	Science	1.9	1.9	348.1	800
<a href="#">10/17/19</a>	GV-49	Science	3.2	5.1	344.9	1400
<a href="#">10/19/19</a>	GV-50	Transit	8.2	13.3	336.7	3600
<a href="#">10/21/19 - 10/22/19</a>	GV-51	Transit	5.3	18.6	331.4	2300
<a href="#">10/22/19</a>	GV-52	Transit	7	25.6	324.4	3100
<a href="#">10/23/19 - 10/24/19</a>	GV-53	Science	10.2	35.8	314.2	4400
<a href="#">10/24/19 - 10/25/19</a>	GV-54	Science	10.1	45.9	304.1	4400
<a href="#">10/26/19 - 10/27/19</a>	GV-55	Science	10.4	56.3	293.7	4500
<a href="#">10/27/19 - 10/28/19</a>	GV-56	Science	10.2	66.5	283.5	4400
<a href="#">10/28/19 - 10/29/19</a>	GV-57	Science	10.1	76.6	273.4	4400
<a href="#">10/29/19 - 10/30/19</a>	GV-58	Science	10	86.6	263.4	4400
<a href="#">10/31/19 - 11/01/19</a>	GV-59	Science	10.2	96.8	253.2	4400
<a href="#">11/02/19 - 11/03/19</a>	GV-60	Science	10.6	107.4	242.6	4600
<a href="#">11/03/19 - 11/04/19</a>	GV-61	Science	9.6	117	233	4200

<a href="#">11/04/19 - 11/05/19</a>	GV-62	Science	10.3	127.3	222.7	4500
<a href="#">11/05/19 - 11/06/19</a>	GV-63	Science	10.2	137.5	212.5	4400
<a href="#">11/07/19 - 11/08/19</a>	GV-64	Science	10	147.5	202.5	4400
<a href="#">11/08/19 - 11/09/19</a>	GV-65	Science	9.5	157	193	4100
<a href="#">11/09/19 - 11/10/19</a>	GV-66	Science	10.2	167.2	182.8	4400
<a href="#">11/13/19 - 11/14/19</a>	GV-67	Science	10.2	177.4	172.6	4400
<a href="#">11/14/19 - 11/15/19</a>	GV-68	Science	10.4	187.8	162.2	4500
<a href="#">11/16/19 - 11/17/19</a>	GV-69	Science	9.9	197.7	152.3	4300
<a href="#">11/17/19 - 11/18/19</a>	GV-70	Science	9.9	207.6	142.4	4300
<a href="#">11/18/19 - 11/19/19</a>	GV-71	Science	10.3	217.9	132.1	4500
<a href="#">11/19/19 - 11/20/19</a>	GV-72	Science	10.4	228.3	121.7	4500
<a href="#">11/20/19 - 11/21/19</a>	GV-73	Science	3.5	231.8	118.2	1500
<a href="#">11/25/19</a>	GV-74	Ferry	5.7	237.5	112.5	2500
<a href="#">11/26/19</a>	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 11/03/19 Science Report

**Mission:**

OIB

**Mission Summary:**

Flight Report: 11/03/19

*OUTLOOK FOR TOMORROW: Some clouds are forecasted to move back into the Rennick glacier area tomorrow, so another Rennick land ice mission is not viable, however there are a few IS-2 and coastal land ice missions that are viable. There are still no areas/options for a sea ice mission for tomorrow.*

Mission: Rennick 01

Priority: **High**

Today IceBridge successfully completed the high priority land ice mission Rennick 01. This mission is of importance because it overflies three ICESat-2 tracks with low latency, one track with 20 hours of separation between OIB and IS-2. This mission also flies the centerline of Rennick Glacier, the same line that was previously flown by OIB in 2013. Rennick glacier is almost 200 miles long, and is one of the largest in Antarctica. This glacier also flows directly out into the sea ice pack and ocean and is thought to be more sensitive to oceanic forcing than other glaciers and is also retreating. The data collected today, especially the gravity data will be of great use in understanding of the bathymetry of the ocean surface at this glacier's outlet affects the amount and how it retreats.

Just as forecasted, and confirmed with satellite imagery this morning, OIB was met with clear skies and light winds in the area of Rennick Glacier. There were some clouds located a bit off shore, however they were not forecasted to move towards the continent, and this was also confirmed during the mission. Conditions throughout the mission were ideal, with clear skies and no turbulence.

All instruments performed well today with 100% data collection. However, on the transit back to Hobart a few problems were noted with the gravimeter and the impact is unknown as of this email. The gravity crew in the field are currently working on the issue, and we hope it's not **?mucked up?** (Aussie slang for ?broken?). Possible missions for tomorrow are not gravity-centric missions.

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

0580 (- 20 hours)

0649 (- 5 days)

0641 (- 4 days)

Data volumes collected during today's mission, which consisted of 2.9 hours of data collection:

ATM: 49 Gb

CAMBOT: 79 Gb

FLIR: 6 Gb

Narrow Swath ATM: 73 Gb green

Narrow Swath ATM: 65 Gb IR

VNIR: 27 Gb

SWIR: 36 Gb

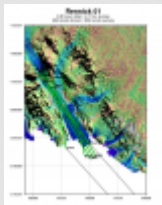
Snow Radar: 645 Gb

MCoRDS: 301 Gb

Gravity: 4.5 Gb

#### Images:

### Figure 1



[Read more](#)

### Figure 2



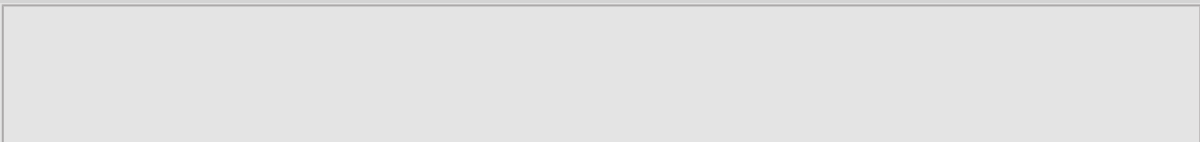
[Read more](#)

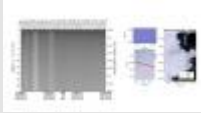
### Figure 3



[Read more](#)

### Figure 4





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## Figure 5



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## Figure 6



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**Submitted by:**

Linette Boisvert on 11/06/19

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