

## Gulfstream V - JSC 09/11/19

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

Flight Number: GV-43

Payload Configuration: OIB

Nav Data Collected: No

Total Flight Time: 6.9 hours

Submitted by: Debra Willett on 09/11/19

Flight Segments:

<b>From:</b>	BGTL	<b>To:</b>	BGTL
<b>Start:</b>	09/11/19 11:05 Z	<b>Finish:</b>	09/11/19 17:57 Z
<b>Flight Time:</b>	6.9 hours		
<b>Log Number:</b>	<a href="#">195004</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>	3000 miles		

Flight Hour Summary:

	<b>195004</b>
<b>Flight Hours Approved in SOFRS</b>	120
<b>Total Used</b>	83.8
<b>Total Remaining</b>	36.2

195004 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">08/19/19</a>	GV-34	Science	3.8	3.8	116.2	1700
<a href="#">08/21/19</a>	GV-35	Transit	0.6	4.4	115.6	300
<a href="#">09/03/19</a>	GV-36	Transit	6.5	10.9	109.1	2800
<a href="#">09/04/19</a>	GV-37	Science	6.7	17.6	102.4	2900
<a href="#">09/05/19</a>	GV-38	Science	6.7	24.3	95.7	2900
<a href="#">09/06/19</a>	GV-39	Science	6.6	30.9	89.1	2900
<a href="#">09/07/19</a>	GV-40	Science	6.1	37	83	2700
<a href="#">09/09/19</a>	GV-41	Science	6.4	43.4	76.6	2800
<a href="#">09/10/19</a>	GV-42	Science	6.8	50.2	69.8	3000
<a href="#">09/11/19</a>	GV-43	Science	6.9	57.1	62.9	3000
<a href="#">09/12/19</a>	GV-44	Science	7.1	64.2	55.8	3100
<a href="#">09/13/19</a>	GV-45	Science	5.8	70	50	2500
<a href="#">09/14/19</a>	GV-46	Science	7.2	77.2	42.8	3100
<a href="#">09/15/19</a>	GV-47	Transit	6.6	83.8	36.2	2900

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 Summer 2019 - Gulfstream V - JSC 09/11/19 Science Report

Mission: OIB Summer 2019

Mission Summary:

[operational\_instruments]  
ATM

Narrow Swath ATM  
FLIR  
CAMBOT  
Snow Radar  
[/operational\_instruments]

*OUTLOOK FOR TOMORROW: Just south of Umanaq in the area of Jakobshavn Glacier looks like it will be clear for tomorrow, allowing for us to hopefully fly a land ice mission there. Northeast Greenland is still socked in with clouds, preventing missions there. A high pressure system over the Arctic Ocean is forming, hopefully allowing to get one more sea ice mission later this week.*

**Mission: Umanaq B**  
**Priority: Medium**

This land ice mission is designed to fly the Umanaq coast in a parallel grid with 10km spacing near the coasts, to 20km spacing upstream at higher elevations. Since this mission was altered to be flown from Thule instead of Kangerlussuaq the ICESat-2 line was not flown, nor the pair of lines over the Disko Island ice cap. However, having flown this mission in the Arctic 2019 Spring campaign we are not able to determine seasonal dh/dt of the glaciers along these lines.

This morning's forecasts from the weather models showed light offshore winds which normally means cold, dry air descending the ice sheet and clear conditions. This was backed up by satellite imagery that we also received in the morning except for a small low cloud area at the southern end of the lines, which we expected to dissipate by the time we got to these areas of our mission. This was in fact the case and the majority of the mission was clear, with just a few clouds for a few miles at the extreme northern ends of the 2 outboard-most lines. Because of these ideal operating conditions all of the instruments performed well with 100% data collection.

There was some melt observed during this flight however it appeared that the melt ponds were beginning to freeze over.

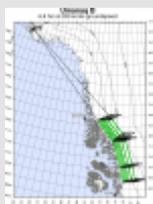
ICESat-2 RGT latencies (+/- indicates OIB surveyed after/before ICESat-2):  
None

Data volumes collected during today's mission, which consisted of 5.0 hours of data collection:

ATM: 80 Gb  
CAMBOT: 168 Gb  
FLIR: 10 Gb  
Narrow Swath ATM: 114 Gb green  
Narrow Swath ATM: 100 Gb IR  
VNIR: 41 Gb  
SWIR: 58 Gb  
Snow Radar: 0.99 Tb

#### Images:

### Figure 1



[Read more](#)

### Figure 2



[Read more](#)

### Figure 3



[Read more](#)

### Figure 4



[Read more](#)

### Figure 5



[Read more](#)

**Submitted by:** Linette Boisvert on 09/16/19

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Bruce A. Tagg

---

**Source URL:** [https://airbornescience.nasa.gov/flight\\_reports/Gulfstream\\_V\\_-\\_JSC\\_09\\_11\\_19#comment-0](https://airbornescience.nasa.gov/flight_reports/Gulfstream_V_-_JSC_09_11_19#comment-0)