Gulfstream V - JSC 11/03/19 - 11/04/19

Aircraft:
Gulfstream V - JSC (See full schedule)
Flight Number:
GV-61
Payload Configuration:
OIB
Nav Data Collected:
No
Total Flight Time:
9.6 hours
Submitted by:
Debra Willett on 11/04/19
Flight Segments:

From:	YMHB	**To:**	YMHB
Start:	11/03/19 21:48 Z	**Finish:**	11/04/19 07:24 Z
Flight Time:	9.6 hours		
Log Number:	205003	**PI:**	Joseph MacGregor
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Miles Flown:	4200 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 11/04/19 Science Report

Mission:
OIB
Mission Summary:

Flight Report: 11/04/19

OUTLOOK FOR TOMORROW: Weather again looks clear in the Cook-Ninnis area of East Antarctica where we have a bunch high priority science mission still needed to complete. A sea ice racetrack mission might be possible this weekend, weather permitting of course!

Mission: Matusevich-Cook IS-2
Priority: **High**

The high priority land ice mission Matusevich-Cook IS-2 was flown by IceBridge today, marking the 9th mission of the campaign thus far in 12 possible fly days. Again, like the forecasts and satellite imagery implied, light katabatic flow off the ice sheet in Victoria Land and eastern Wilkes Land caused clear conditions in our survey area. There were some widespread low clouds offshore. Because the katabatic flow off the ice sheet was light no turbulence was experienced during the flight.

The mission today was of importance because it is an area where accumulation has discrepancies between both global reanalyses and regional climate models, like MERRA-2 and RACMO. The survey was situated over flow lines on either side of the Matusevich glacier on areas of the ice that are very slow moving so we can get the snow stratigraphy there from our snow radar. This data can then be used to assess the accuracy of these models. This mission also contains IS-2 tracks, one with a latency of 14 hours!

The gravity team was able to fix the issue with the gravimeter last night, and an operator flew on today?s flight to

monitor how it was functioning. Luckily this was not a gravity centric mission so we were not risking collecting data if the instrument had issues. No issues were reported with the gravimeter during today?s flight, and we are glad that it?s not **?cactus?** (Aussie slang for ?broken?). All instruments performed well with 100% data collection, except for a 20 minute loss of data midway through the southbound IS-2 line due to a software crash.

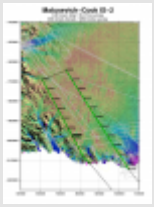
Ramp pass was conducted at 1200 feet today post mission.

ICESat-2 RGT latencies (+/- indicates OIB surveyed after/before ICESat-2):
0573 (+ 14 **hours**)
0832 (- 16 days)

Data volumes collected during today?s mission, which consisted of 2.6 hours of data collection:
ATM: 43 Gb
CAMBOT: 53 Gb
FLIR: 5 Gb
Narrow Swath ATM: 62 Gb green
Narrow Swath ATM: 56 Gb IR
VNIR: 23 Gb
SWIR: 30 Gb
Snow Radar: 550 Gb
MCoRDS: 253 Gb
Gravity: 4.5 Gb

Images:

Figure 1



Read more

Figure 2

Read more

Figure 3

Read more

Figure 4

Read more

Submitted by:
Linette Boisvert on 11/06/19

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