

OIB - Gulfstream V - JSC 11/14/19 Science Report

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

Date: Thursday, November 14, 2019

Mission: OIB

Mission Location: Denman 01 Mopup

Mission Summary:

Mission: Denman 01 Mopup

Priority: High

This mission is designed to survey the neighboring Denman and Scott Glaciers, specifically the region just upstream of their grounding lines, on a 10 km grid. The grid is designed to supplement earlier airborne measurements collected by the ICECAP project, specifically by interleaving halfway between their flight lines.

A consistent forecast for several days and a timely image from Casey meteorologists indicated strong outflow and relatively clear conditions for this first mopup mission. This mission is designed to fly the two upstream fluxgates that couldn't be surveyed during the first attempt at Denman 01 due to range concerns. We encountered clear skies and light turbulence, but otherwise all instruments worked well and report 100% data collection of these remaining two lines. We performed a ramp pass at 2000 ft AGL on arrival at Hobart.

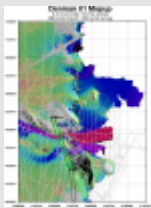
Toward the end of the survey, one of the four MCoRDS antenna elements appeared to malfunction, possibly due to a loose connection, but the bed was still detected in the real-time display throughout the survey. We will be investigating further and repairing as necessary.

Attached images:

1. Map of today's mission (John Sonntag / NASA)
2. KML of today's mission (John Sonntag / NASA)
3. Lower Denman Glacier, as it empties into the Shackleton Ice Shelf (John Sonntag / NASA)
4. Snow-filled crevasses, and windblown blue ice, just east of lower Scott Glacier (John Sonntag / NASA)

Images:

Map of today's mission



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Lower Denman Glacier, as it empties into the Shackleton Ice Shelf



[Read more](#)

Snow-filled crevasses, and windblown blue ice, just east of lower Scott Glacier



[Read more](#)

Submitted by: Joseph MacGregor on 11/15/19

Related Flight Report:

Gulfstream V - JSC 11/13/19 - 11/14/19

Flight Number: GV-67

Payload Configuration: OIB

Nav Data Collected: No

Total Flight Time: 10.2 hours

Submitted by: Debra Willett on 11/14/19

Flight Segments:

From:	YMHB	To:	YMHB
Start:	11/13/19 21:42 Z	Finish:	11/14/19 07:55 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.

Flight Tracks:

Attachment	Size
 2_denman01mopup_labels.kml	6.16 KB

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