OIB - Other: Airtec BT-67 12/14/17 - 12/15/17 Science Report

Aircraft: Other: Airtec BT-67 - 18M008
Date: Thursday, December 14, 2017 - Friday, December 15, 2017
Mission: OIB
Mission Location: Cape Adare A
Mission Summary:

Mission: Cape Adare A

Priority: Medium

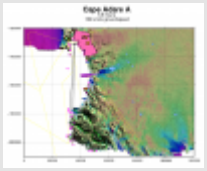
This mission is designed to fly the centerlines of the Mariner, Lillie, Ebbe, and Tucker Glaciers, all near Cape Adare. Based on Bedmap2, the full lengths of these glaciers have not been surveyed previously, and the Cape Adare region is generally sparsely surveyed.

After a long day yesterday, we delayed our normal takeoff time (from ~0830 to ~1115) for crew rest. We then took off for the Cape Adare A mission, which was the highest priority mission with sky clear weather over the target region. Ice fog in the Ross Sea was observed, but all four glacier centerline runs were indeed nearly sky clear. Curiously, the ice fog appeared to cause some interference with UWB MCoRDS; both this fog and the interference ended as we approached the beginning of the survey proper, operating in narrow bandwidth mode. One channel on MCoRDS is also experiencing an issue with an antenna cable causing ~3 dB of loss. Some fogging was experienced by the Riegl laser altimetry at the highest points of the mission, which was quickly ameliorated by additional heating of the cabin. Otherwise, the mission proceeded efficiently and uneventfully across all four major glaciers, with excellent views of Victoria Land mountains in what is likely the region with the highest accumulation rates that we will survey during this campaign. After the survey, we flew over Mario Zucchelli Station (Terra Nova Bay) for a visual inspection of the alternate landing site there.

Attached images:
1. Map of today's mission (John Sonntag / NASA)
2. The impressive promontory north of the terminus of Tucker Glacier (Joe MacGregor / NASA)
3. A common landform in this region that might be described as a floating piedmont glacier (Joe MacGregor / NASA)

Images:

Map of today's mission



Read more

The impressive promontory north of the terminus of Tucker Glacier

Read more

A common landform in this region that might be described as a floating piedmont glacier

Read more

Submitted by: Joseph MacGregor on 12/17/17
Related Flight Report:

Other: Airtec BT-67 12/14/17 - 12/15/17

Flight Number: OIB-Basler Science Flight #12
Payload Configuration: OIB Basler Antarctica 17
Nav Data Collected: Yes
Total Flight Time: 6.7 hours
Submitted by: Joseph MacGregor on 12/17/17
Flight Segments:

From:	NZWD	**To:**	NZWD
Start:	12/14/17 22:10 Z	**Finish:**	12/15/17 04:51 Z
Flight Time:	6.7 hours		
Log Number:	18M008	**PI:**	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Mission: Cape Adare A Priority: Medium This mission is designed to fly the centerlines of the Mariner, Lillie, Ebbe, and Tucker Glaciers, all near Cape Adare. Based on Bedmap2, the full lengths of these glaciers have not been surveyed previously, and the Cape Adare region is generally sparsely surveyed. After a long day yesterday, we delayed our normal takeoff time (from ~0830 to ~1115) for crew rest. We then took off for the Cape Adare A mission, which was the highest priority mission with sky clear weather over the target region. Ice fog in the Ross Sea was observed, but all four glacier centerline runs were indeed nearly sky clear. Curiously, the ice fog appeared to cause some interference with UWB MCoRDS; both this fog and the interference ended as we approached the beginning of the survey proper, operating in narrow bandwidth mode. One channel on MCoRDS is also experiencing an issue with an antenna cable causing ~3 dB of loss. Some fogging was experienced by the Riegl laser altimetry at the highest points of the mission, which was quickly ameliorated by additional heating of the cabin. Otherwise, the mission proceeded efficiently and uneventfully across all four major glaciers, with excellent views of Victoria Land mountains in what is likely the region with the highest accumulation rates that we will survey during this campaign. After the survey, we flew over Mario Zucchelli Station (Terra Nova Bay) for a visual inspection of the alternate landing site there.		

Flight Hour Summary:

	18M008
Flight Hours Approved in SOFRS	180
Total Used	217
Total Remaining	-37

18M008 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
11/11/17 - 11/12/17	OIB-Transit leg #1b	Transit	6.3	6.3	173.7	

11/12/17	OIB-Transit leg #2	Transit	4.6	10.9	169.1	
11/12/17 - 11/13/17	OIB-Transit leg #2	Transit	6.2	17.1	162.9	
11/13/17	OIB-Transit leg #4	Transit	7	24.1	155.9	
11/13/17	OIB-Transit leg #4	Transit	3.4	27.5	152.5	
11/13/17	OIB-Transit leg #4	Transit	7	34.5	145.5	
11/16/17	OIB-Transit leg #4	Transit	4.8	39.3	140.7	
11/17/17	OIB-Transit leg #5	Transit	7.6	46.9	133.1	
11/17/17 - 11/18/17	OIB-Transit leg #5	Transit	4.2	51.1	128.9	
11/21/17	Ski test flight	Check	1.8	52.9	127.1	
11/26/17 - 11/27/17	OIB-Basler Test Flight	Check	2.9	55.8	124.2	
11/27/17	OIB-Basler Mx Flight	Maintenance	0.8	56.6	123.4	
11/27/17	Chips Lt L/H engine	Check	0.3	56.9	123.1	
11/28/17 - 11/29/17	OIB-Basler Science Flight #1	Science	6.3	63.2	116.8	
11/30/17 - 12/01/17	OIB-Basler Science Flight #2	Science	7.5	70.7	109.3	
12/01/17 - 12/02/17	OIB-Basler Science Flight #3	Science	8	78.7	101.3	
12/02/17	OIB-Basler Science Flight #4	Science	6.3	85	95	
12/02/17 - 12/03/17	OIB-Basler Science Flight #5	Science	6.5	91.5	88.5	
12/03/17 - 12/04/17	OIB-Basler Science Flight #6	Science	8.2	99.7	80.3	
12/04/17	OIB-Basler Science Flight #7	Science	5.9	105.6	74.4	
12/04/17	Ferguson training flight #1	Pilot Proficiency	0.3	105.9	74.1	
12/04/17 - 12/05/17	OIB-Basler Science Flight #8	Science	4.5	110.4	69.6	0
12/06/17 - 12/07/17	OIB-Basler Science Flight #9	Science	5.9	116.3	63.7	
12/08/17	MX test flight - oil pressure flux	Maintenance	0.8	117.1	62.9	
12/13/17 - 12/14/17	OIB-Basler Science Flight #10	Science	4.3	121.4	58.6	

12/14/17	OIB-Basler Science Flight #11	Science	7.4	128.8	51.2
12/14/17 - 12/15/17	OIB-Basler Science Flight #12	Science	6.7	135.5	44.5
12/15/17	OIB-Basler Science Flight #13	Science	3.4	138.9	41.1
12/15/17 - 12/16/17	OIB-Basler Science Flight #14	Science	7.2	146.1	33.9
12/16/17 - 12/17/17	OIB-Basler Science Flight #15	Science	5.8	151.9	28.1
12/17/17 - 12/18/17	OIB-Basler Science Flight #16	Science	6	157.9	22.1
12/26/17	OIB-Basler Transit North 1	Transit	4.7	162.6	17.4
12/26/17	OIB-Basler Transit North 2	Transit	8	170.6	9.4
12/27/17	OIB-Basler Transit North 3	Transit	5.4	176	4
12/28/17	OIB-Basler Transit North 4	Transit	4.7	180.7	-0.7
12/28/17 - 12/29/17	OIB-Basler Transit North 5	Transit	7.2	187.9	-7.9
12/28/17 - 12/29/17	OIB-Basler Transit North 6	Transit	7.2	195.1	-15.1
12/29/17	OIB-Basler Transit North 7	Transit	6.3	201.4	-21.4
12/30/17	OIB-Basler Transit North 8	Transit	3.9	205.3	-25.3
12/30/17 - 12/31/17	OIB-Basler Transit North 9	Transit	6.9	212.2	-32.2
12/31/17	OIB-Basler Transit North 10	Transit	4.8	217	-37

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.

Page Last Updated: April 22, 2017

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