July 31, 2019 Payload 2 Daily Flight Report

Date: 2019-07-31
Flight Campaign ID: 2019_P2C1
Airport, FBO ID, City: Fairbanks International Airport (PAFA) - Fairbanks, AK

Domain: 19
Sites Flown: BONA (Caribou Creek and Poker Flats Watershed )
Days left in Domain: 20

Report Author: Abe Morrison
Flight Crew: Abe Morrison, Robb Walker
Flight Hours: 02:27
Ground/GPS: Hours until maintenance: 41.93
Pilots: Wesley Wyatt, Mark Solper
Additional Personnel:
GPS Instruments: C-FAI1, C-SUAF, UAF-PFR2

Summary
The crew took advantage of higher clouds today and was able to collect 13 lines and a cross strip under red sky conditions at the BONA site. Unfortunately the flight was cut short when the spectrometer pressure reading suddenly jumped out of specs. The jump in pressure resolved itself after landing, and with coordination of HQ staff was determined to be a known fault with the pressure sensor. The NIS will be pumped down and the getter will be re-activated to prevent this from happening again.

Concerns
-- The Mars Rover software crashed at the beginning of the flight in the middle of the cross strip. The software was restarted and had no further problems.
-- The NIS pressure unexpectedly jumped out of specs during the flight today. The jump in pressure resolved itself after landing and with coordination of HQ staff was determined to be a known fault with the pressure sensor. The NIS will be pumped down and the getter has been re-activated.

Comments
-- Lines 15-27 collected at BONA in red sky conditions.

Flight Screenshots
BONA LIDAR

NIS
### Daily Coverage

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Flown: 14

### Cumulative Domain Coverage

#### BONA

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Flown: 30% (14/46)
Green: 0% (0/46)
Yellow: 0% (0/46)
Red: 30% (14/46)

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Flown: 0% (0/32)
Green: 0% (0/32)
Yellow: 0% (0/32)
Red: 0% (0/32)

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Flown: 70% (23/33)
Green: 0% (0/33)
Yellow: 0% (0/33)
Red: 70% (23/33)

#### N19A

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Flown: 0% (0/1)
Green: 0% (0/1)
Yellow: 0% (0/1)
Red: 0% (0/1)
Flight Collection Plan for 1 August 2019

**Flyority 1:**
Collection Area: Caribou Creek-Poker Flats Watershed (BONA)
Flight Plan Name: D19_BONA_C1_P1_730max_v2.pln
On-station Time: 18:53 UTC / 10:53 L (35deg solar angle)

**Flyority 2:**
Collection Area: Delta Junction (DEJU)
Flight Plan Name: D19_DEJU_R1_P1_730max_v3.pln
On-station Time: 18:41 UTC / 10:41 L (35deg solar angle)

**Flyority 3:**
Collection Area: Healy (HEAL) 1-11
Flight Plan Name: D19_HEAL_R3_P1_730max_v1.pln
On-station Time: 18:53 UTC / 10:53 L (35deg solar angle)

**Flyority 4:**
Collection Area: Nominal Runway – D19
Flight Plan Name: D19_N19A_Nominal_Runway_Test_v1.pln
On-station time: N/A
Crew: Robb Walker (Lidar), Abe Morrison (NIS)

Flight Collection Plan for 2 August 2019

**Flyority 1-4:** Same as previously briefed
Crew: Abe Morrison (Lidar), Robb Walker (NIS)