



## Payload 1 Daily Flight Report



**Date:** 2024-07-20

**Flight Campaign ID:** P1C1

**Airport, FBO ID, City:** Fairbanks International Airport (PAFA) - Fairbanks, AK

**Aircraft:** N615AR

**Domain:** 19 (Taiga)

**Sites Flown:** DEJU (Delta Junction), HEAL (Healy), N19A (D19 Nominal Runway )

**Days left in Domain:** 10

**Report Author:** Mike

**Lidar Operators:** Mike

**Flight Hours:** 03:46

**Spectrometer Operators:** Abe

**Hours until maintenance:** 91.83

**Pilots:** Jeff, Will

**GPS Instruments:** C-FAI1, U-AC71, U-AC72, U-GRNX

**Ground Crew:** Mitch

### Summary

Similar to yesterday, we began the morning with high hopes for a “green” collect at BONA. Unfortunately, at the site and in the surrounding area there was a thin, yet perceptible layer and thick haze present pushing conditions to beyond “green.” Cumulus clouds also started to develop around solar angle. With a few more potential cloud free days forecasted for BONA, efforts were turned towards finishing up remaining un-flown lines at DEJU, HEAL, and N19A. Those three areas now have complete coverage in mixed sky conditions.

### Concerns

One of the power supply units in our StartPac GPU seems to have failed today. While still serviceable for the basal state, when using it for powering on survey systems, it is causing the UPS batteries to engage. The FBO is letting us borrow their GPU’s while in the hangar and on the ramp.

### Comments

One digitizer freeze up was encountered today towards the end of the survey. A digitizer reboot fixed the problem for the remaining three lines.

### Daily Coverage

Estimated Cloud Cover Key

Green:	Yellow:	Red:
0-10%	11-50%	>50%

Solar Angle Less Than 40 degrees

Line #
--------

### D19|DEJU

Line #	11	12	13	14
Lidar	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓
Camera	✓	✓	✓	✓
Cloud Cover				

Total number of lines flown: 4

### D19|HEAL

Line #	30	31	32	33
Lidar	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓
Camera	✓	✓	✓	✓
Cloud Cover				

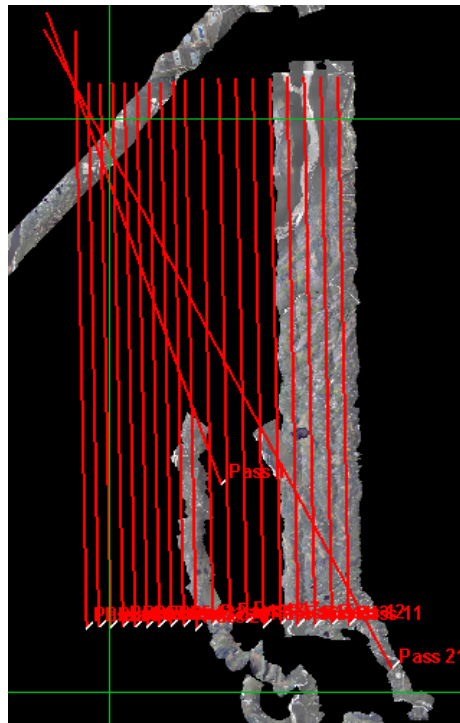
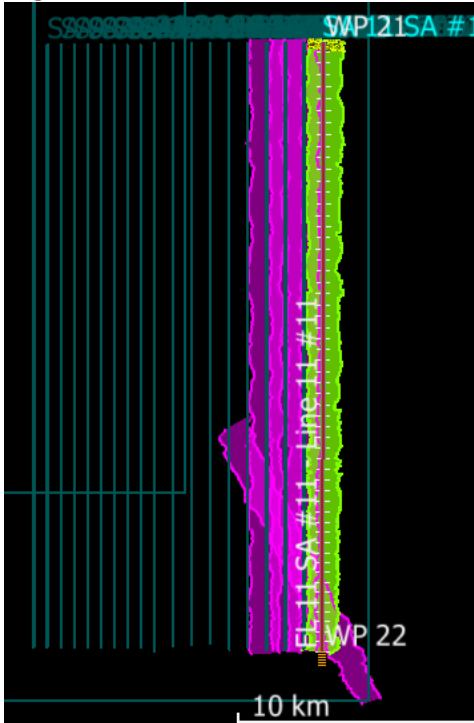
Total number of lines flown: 4

### D19|N19A

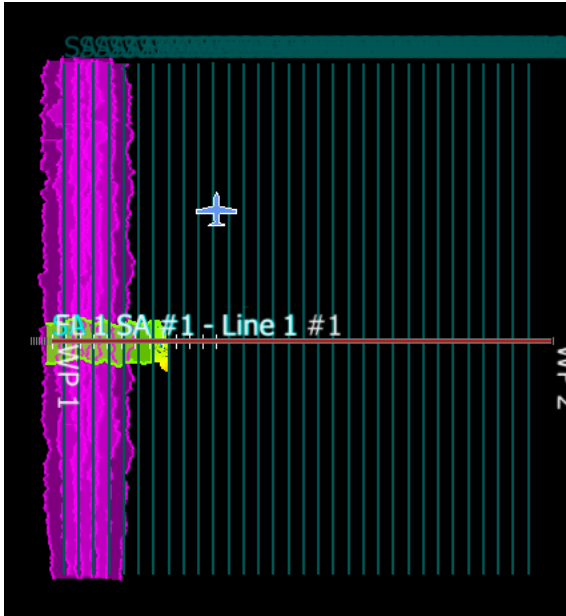
Line #	1	2
Lidar	✓	✓
Spectrometer	✓	✓
Camera	✓	✓
Cloud Cover		

Total number of lines flown: 2

### Flight Screenshots

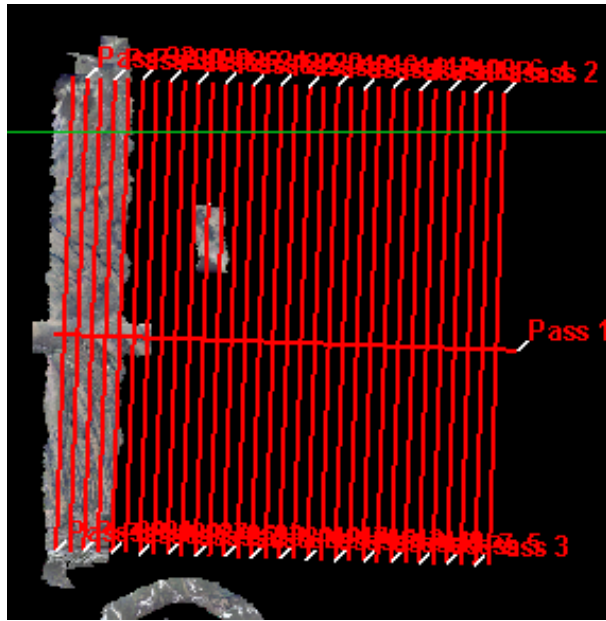


DEJU Lidar

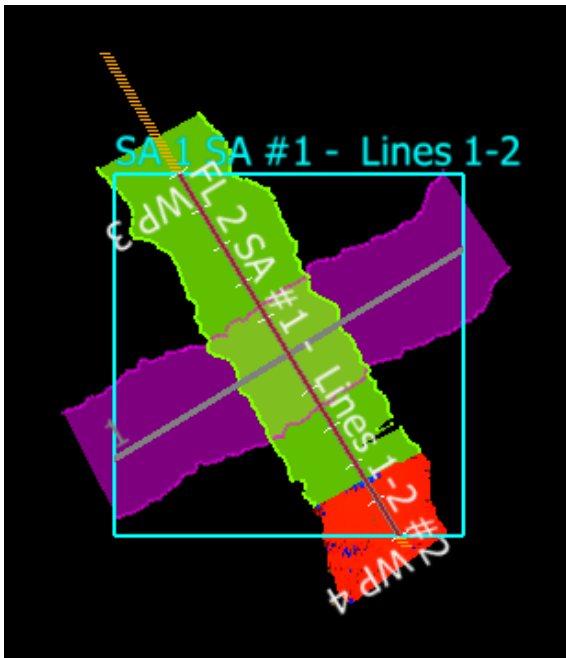


Lidar HEAL

DEJU NIS



NIS HEAL



Lidar N19A



NIS N19A

**Pictures**



North side of the Alaska Range in between the DEJU and HEAL sites.

**Cumulative Domain Coverage**

D19|BONA (Caribou Creek and Poker Flats Watershed )

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46														

Flown: 46% (21/46)  
 Green: 0% (0/46)  
 Yellow: 20% (9/46)  
 Red: 26% (12/46)

D19|DEJU (Delta Junction)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21																			

Flown: 100% (21/21)  
 Green: 33% (7/21)  
 Yellow: 67% (14/21)  
 Red: 0% (0/21)

### D19|HEAL (Healy )

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33							

Flown: 100% (33/33)

Green: 0% (0/33)

Yellow: 15% (5/33)

Red: 85% (28/33)

### D19|N19A (D19 Nominal Runway )

1	2
---	---

Flown: 100% (2/2)

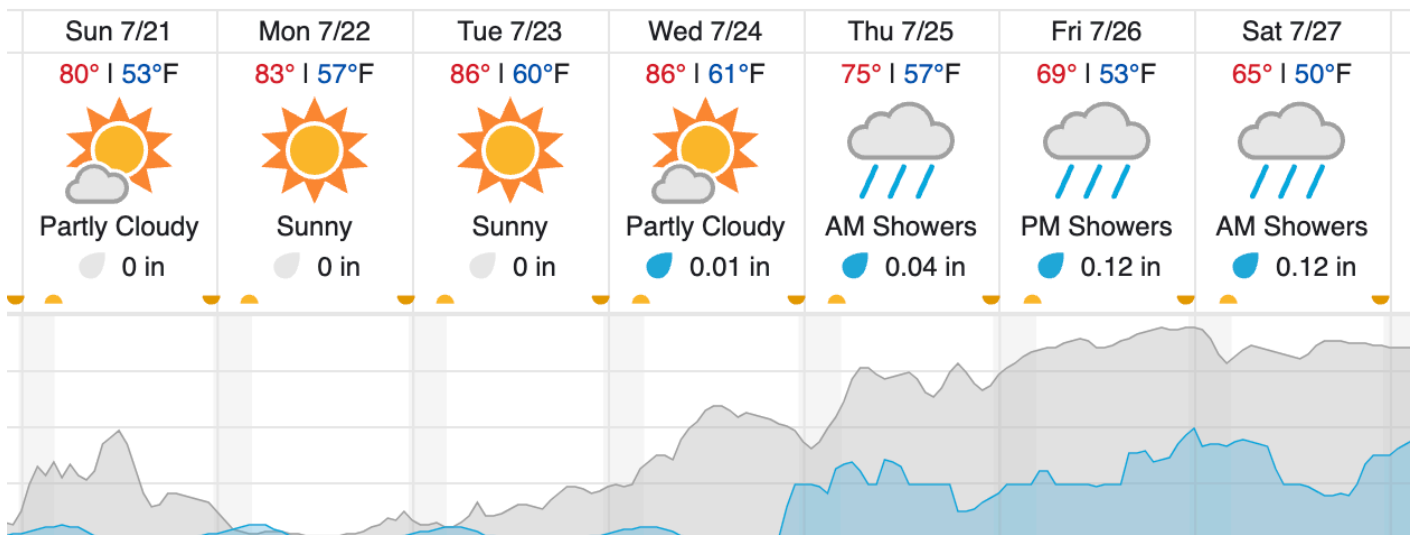
Green: 0% (0/2)

Yellow: 100% (2/2)

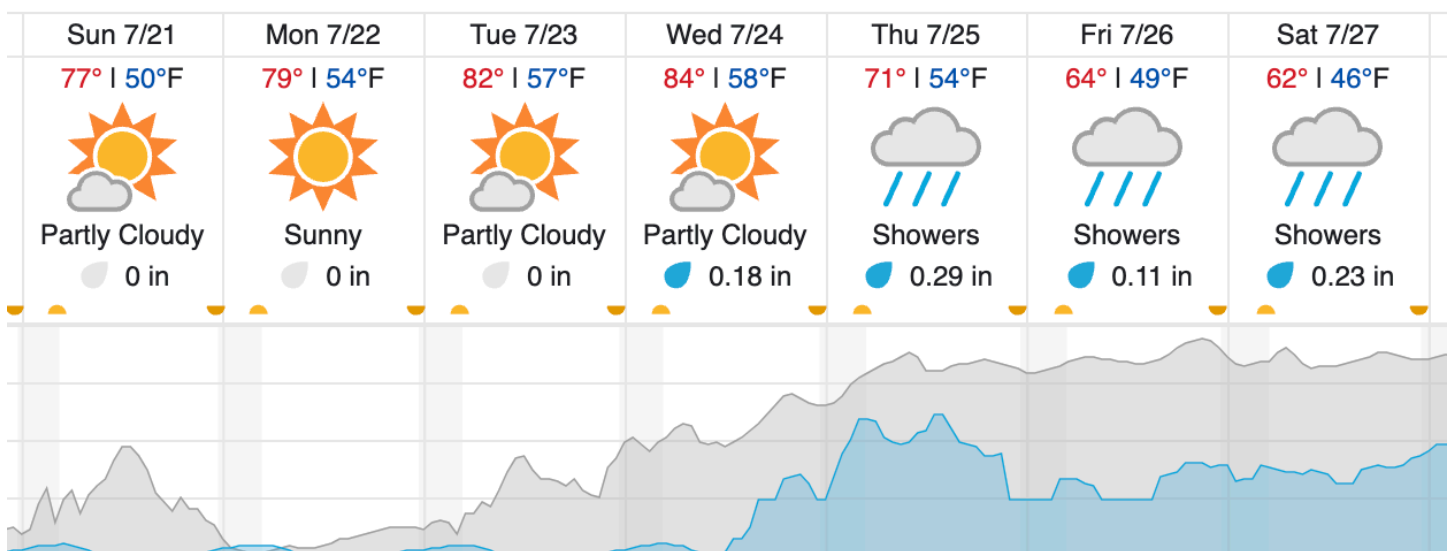
Red: 0% (0/2)

### Weather Forecast

Fairbanks, AK (BONA)

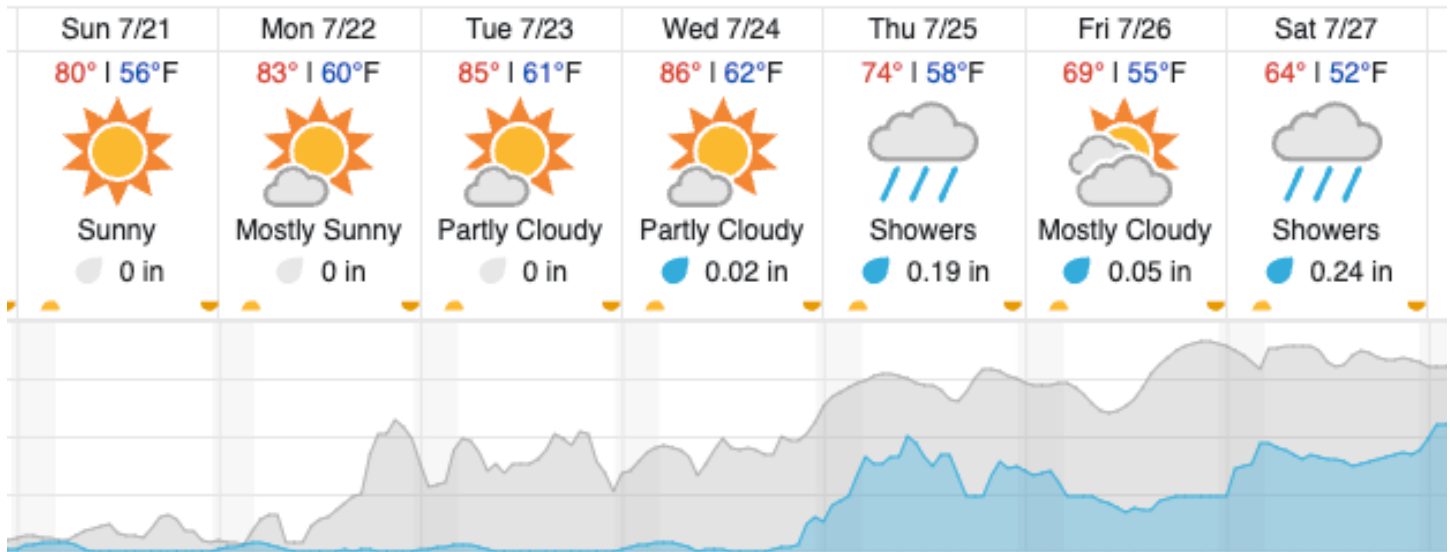


Healy, AK (HEAL)





Delta Junction, AK



Cloud Cover (%)    Chance of Precip. (%)

source: wunderground.com

**Flight Collection Plan for 21 July 2024**

**Flyority 1**

Collection Area: Caribou Creek – Poker Flats Watershed (BONA)

Flight Plan Name: D19\_BONA\_C1\_P1\_v2\_PRM.xml

On-Station Time: 10:30 L / 18:30 UTC

**Flyority 2**

Collection Area: Healy (HEAL) \*if green conditions present

Flight Plan Name: D19\_HEAL\_R3\_P1\_v2\_PRM.xml

On-Station Time: 10:30 L / 18:30 UTC

**Flyority 3**

Collection Area: Delta Junction (DEJU) – Priority Flight Box 1 \*lines 9-10 if green conditions present

Flight Plan Name: D19\_DEJU\_R1\_P1\_P2\_v6\_PRM.xml

On-Station Time: 10:20 L / 18:20 UTC

**Flyority 4**

Collection Area: Delta Junction (DEJU) – Priority Flight Box 2 \* if green conditions present

Flight Plan Name: D19\_DEJU\_R1\_P1\_P2\_v6\_PRM.xml

On-Station Time: 10:20 L / 18:20 UTC

Crew: Abe (Lidar), Mitch (NIS), Mike (Ground)