



## Payload 2 Daily Flight Report



**Date:** 2025-07-04

**Flight Campaign ID:** P2C1

**Airport, FBO ID, City:** Deadhorse Airport (PASC) - Deadhorse, AK

**Aircraft:** N615AR

**Domain:** 18 (Tundra)

**Sites Flown:** TOOL (Toolik)

**Days left in Domain:** 32

**Report Author:** Elissa

**Lidar Operators:** Elissa

**Spectrometer Operators:** Alyssa

**Pilots:** Vince, Manning

**Flight Hours:** 04:16

**Hours until maintenance:** 91.55

**GPS Instruments:** C-EDOC, U-TLK2

### Summary

Flight plans were updated to include the NRSS line extensions on the south end of the TOOL box, and to correct reversed line numbering in the KML. Departure was delayed to go over a method for manual capture with Travis from Riegl, who set up alternate camera configuration settings to be used in the event that the updated flight plans still did not work. The standard camera config file, which was used for today's flight, was not touched. Unfortunately once on station, communication between RiAcquire and the camera failed. This despite successful initialization of the camera and manually triggered test photos. After losing a considerable amount of time re-initializing and rebooting in the air, we proceeded with collecting lidar and NIS data without the camera.

### Concerns

- Disk Set 1 camera disk failed to format. As with the previous failed camera disks, aborting the formatting attempt causes the disk to "lock out" the user from further action.
- New error observed when starting RiAcquire: Failed to read atmospheric conditions, invalid number of elements.
- RiAcquire error when approaching collection area: Communication with Camera1 not possible. Camera will be set to standby mode.

### Comments

The Toolik Field Station NRSS area south was collected today in mostly yellow conditions, albeit without camera data.

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (\*)

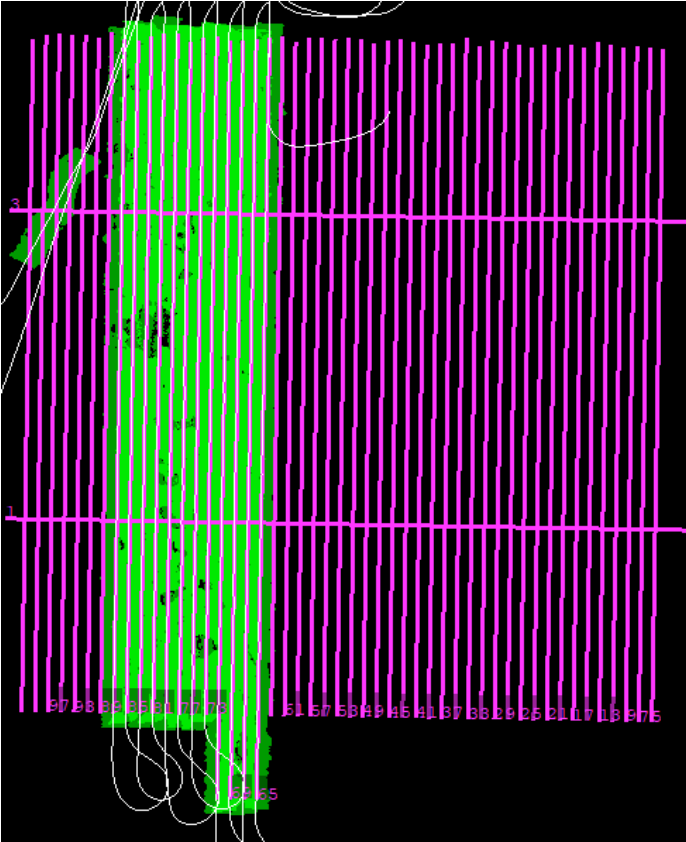
D18|TOOL

Line #	33	34	35	36	37	38	39	40	41	42	43	44
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera												
Cloud Cover	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red

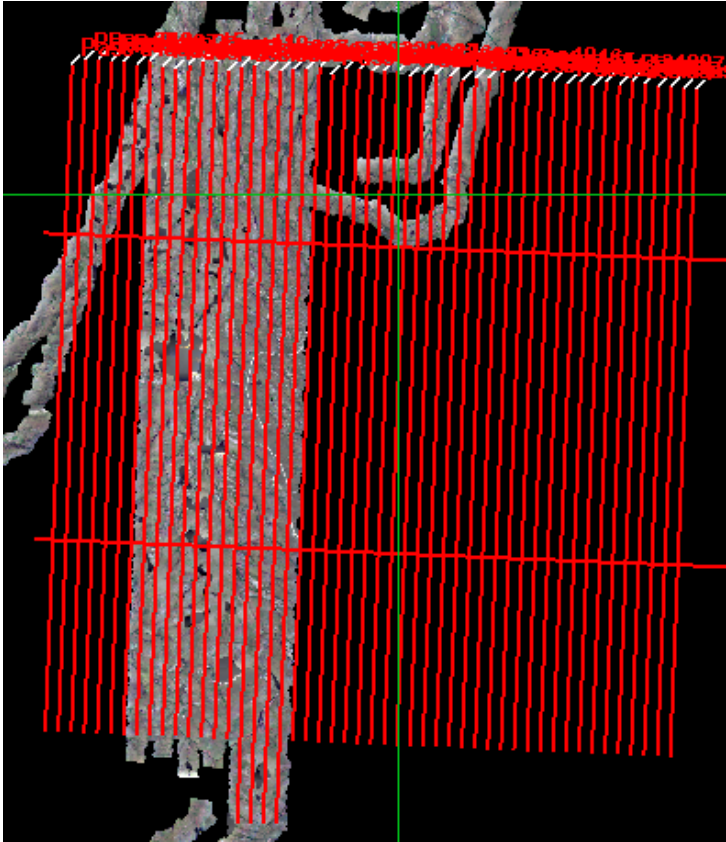
Total number of lines flown: 12

Flight Screenshots

Lidar



NIS



## Cumulative Domain Coverage

### D18|BARR\_P1 (Barrow Environmental Observatory Priority 1)

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					

Flown: 100% (35/35)

Green: 100% (35/35)

Yellow: 0% (0/35)

Red: 0% (0/35)

\* Flown within 35deg solar angle

### D18|BARR\_P2 (Barrow Environmental Observatory Priority 2)

36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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Flown: 47% (7/15)

Green: 47% (7/15)

Yellow: 0% (0/15)

Red: 0% (0/15)

\* Flown within 35deg solar angle

### D18|BARR\_P3 (Barrow Environmental Observatory Priority 3)

51	52	53	54
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Flown: 0% (0/4)

Green: 0% (0/4)

Yellow: 0% (0/4)

Red: 0% (0/4)

\* Flown within 35deg solar angle

### D18|OKSR (Oksrukuyik Creek)

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

Flown: 0% (0/21)

Green: 0% (0/21)

Yellow: 0% (0/21)

Red: 0% (0/21)

\* Flown within 35deg solar angle

### D18|TOOL (Toolik)

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	47	48	49	50	51									

Flown: 55% (28/51)

Green: 31% (16/51)

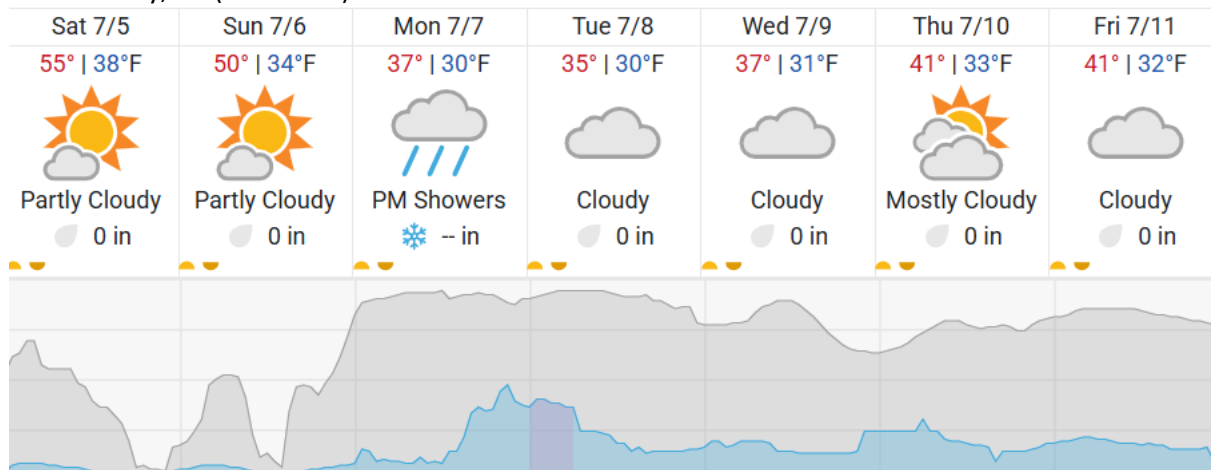
Yellow: 16% (8/51)

Red: 8% (4/51)

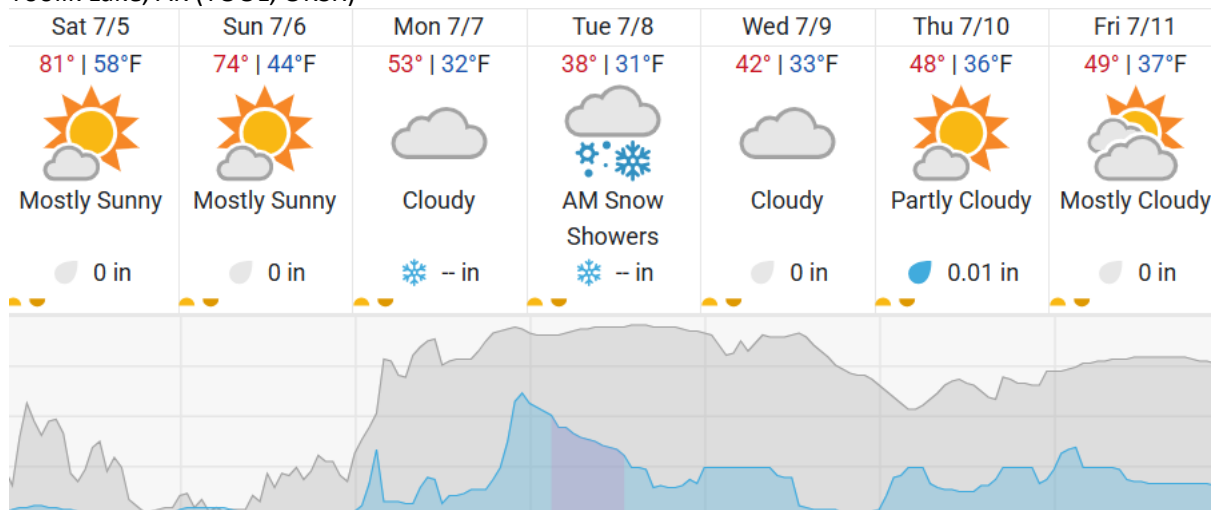
\* Flown within 35deg solar angle

## Weather Forecast

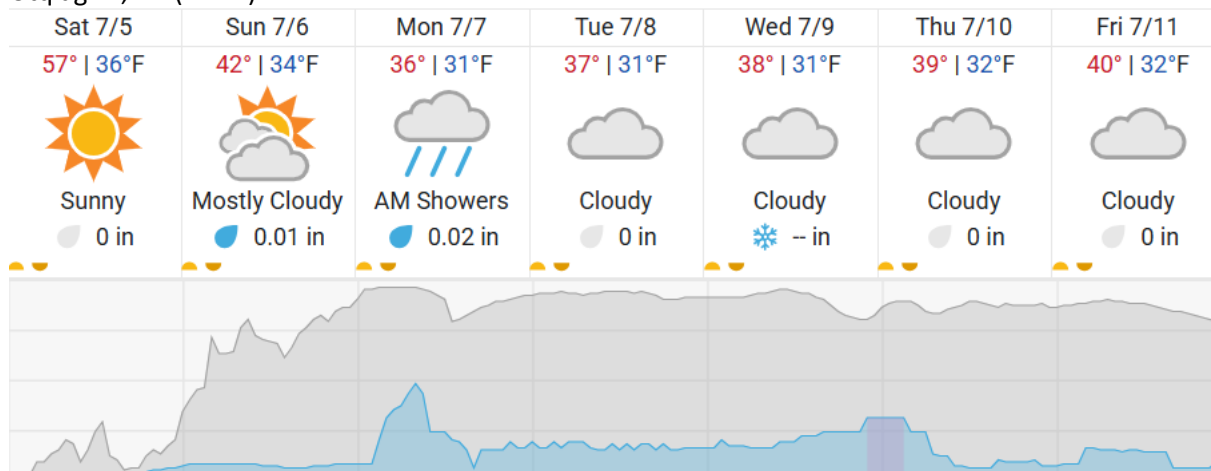
### Prudhoe Bay, AK (FBO-PASC)



### Toolik Lake, AK (TOOL, OKSR)



### Utqiagvik, AK (BARR)



Cloud Cover (%)	Chance of Precip. (%)
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source: wunderground.com

## **Flight Collection Plan for 5 July 2025**

### **Flyority 1**

Collection Area: Toolik (TOOL) Lines 3-10, 20-26, 33-51

Flight Plan Name: D18\_TOOL\_C1\_P1\_v4\_VQ780

On-Station Time: (35 degrees): 1840 UTC / 1040 L

### **Flyority 2**

Collection Area: Oksrukuyik Creek (OKSR)

Flight Plan Name: D18\_OKSR\_A1\_P1\_v3\_VQ780

On-Station Time: (35 degrees): 1840 UTC / 1040 L

### **Flyority 3**

Collection Area: Barrow Environmental Observatory (BARR) - Priority 1 Flight Box

Flight Plan Name: D18\_BARR\_R1\_P1\_P2\_P3\_v6\_VQ780

On-Station Time: (35 degrees): 1930 UTC / 1130 L

### **Flyority 4**

Collection Area: Barrow Environmental Observatory (BARR) - Priority 2 Flight Box

Flight Plan Name: D18\_BARR\_R1\_P2\_v5\_Q780.pln

On-Station Time: (35 degrees): 1930 UTC / 1130 L

### **Flyority 5**

Collection Area: Barrow Environmental Observatory (BARR) - Priority 3 Flight Box

Flight Plan Name: D18\_BARR\_R1\_P3\_v5\_Q780.pln

On-Station Time: (35 degrees): 1930 UTC / 1130 L

**Crew:** Elissa (Lidar), Alyssa (NIS)