



## Payload 1 Daily Flight Report



**Date:** 2024-09-16

**Flight Campaign ID:** P1C1

**Airport, FBO ID, City:** Boulder Municipal Airport (KBDU) - Boulder, CO

**Aircraft:** N615AR

**Domain:** 00 (Training & Calibration)

**Sites Flown:** N10F (Nominal Runway at KBDU - Galaxy), W10D (Wiggle Timing Test - Galaxy),  
H10D (NEON Headquarters Lidar Validation - Galaxy)

**Days left in Domain:** 3

**Report Author:** John

**Lidar Operators:** John

**Spectrometer Operators:** Matt

**Pilots:** Will, Justin

**Ground Crew:** Nick

**Flight Hours:** 02:40

**Hours until maintenance:** 23.82

**GPS Instruments:** AOP\_KBDU

**Summary:** Today the crew completed the lidar calibration flights for P1.

**Concerns:** None

**Comments:** The NIS required multiple restarts before we could begin collecting data.

### Daily Coverage

Estimated Cloud Cover Key

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

D00|N10F

Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																				

Line #	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																	

Total number of lines flown: 37

D00|W10D

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

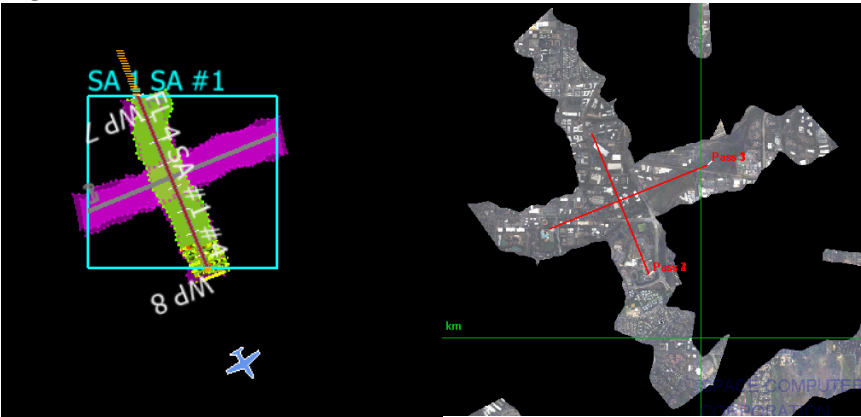
Total number of lines flown: 2

D00|H10D

Line #	1	2	3	4
Lidar	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓
Camera	✓	✓	✓	✓
Cloud Cover				

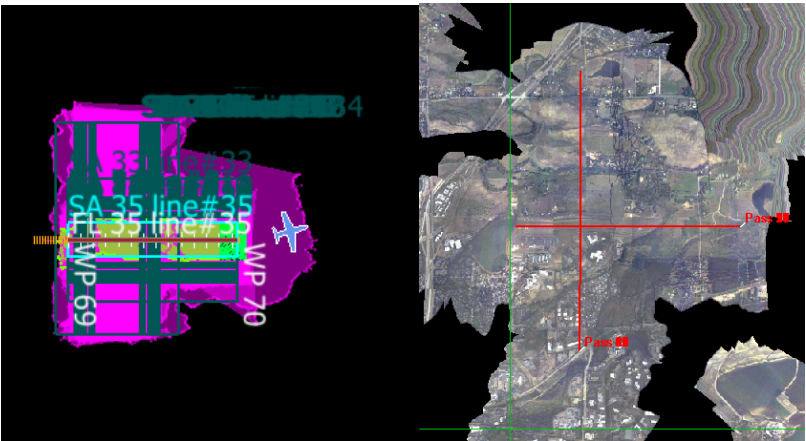
Total number of lines flown: 4

Flight Screenshots



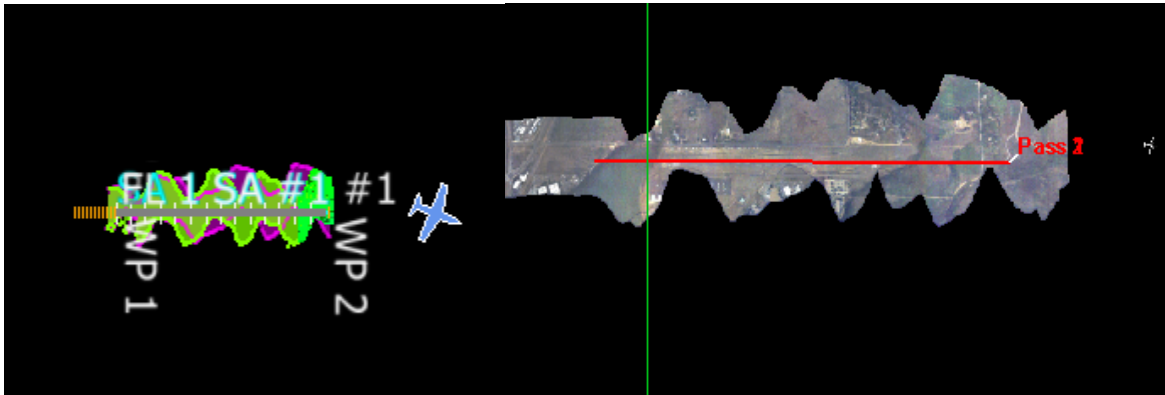
lidar HQ flight lines

NIS HQ flight lines



lidar Nominal flight lines

NIS Nominal flight lines



lidar Wigggle flight lines

NIS Wigggle flight lines

## Cumulative Domain Coverage

D00|B10F (Complete Greeley Boresight Geocalibration - 1500m, 1000m, 550m - Galaxy)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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Flown: 100% (20/20)

Green: 10% (2/20)

Yellow: 90% (18/20)

Red: 0% (0/20)

D00|BLKF (Black Forest Waveform Range Test - Galaxy)

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

Flown: 67% (14/21)

Green: 19% (4/21)

Yellow: 48% (10/21)

Red: 0% (0/21)

D00|CPER (Central Plains Ecological Range)

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												

Flown: 100% (28/28)

Green: 89% (25/28)

Yellow: 11% (3/28)

Red: 0% (0/28)

D00|H10D (NEON Headquarters Lidar Validation - Galaxy)

1	2	3	4
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Flown: 100% (4/4)

Green: 0% (0/4)

Yellow: 100% (4/4)

Red: 0% (0/4)

D00|N10F (Nominal Runway at KBDU - Galaxy)

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			

Flown: 100% (37/37)

Green: 0% (0/37)

Yellow: 100% (37/37)

Red: 0% (0/37)

D00|O10C (NIS Offset - Galaxy)

1	2
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Flown: 0% (0/2)  
Green: 0% (0/2)  
Yellow: 0% (0/2)  
Red: 0% (0/2)

D00|R10E (Table Mountain Radiometric Calibration - Galaxy)

1	2	3	4	5
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Flown: 100% (5/5)  
Green: 100% (5/5)  
Yellow: 0% (0/5)  
Red: 0% (0/5)

D00|R10F (Boulder Airport Radiometric Calibration - Galaxy)

1	2	3	4	5
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Flown: 80% (4/5)  
Green: 80% (4/5)  
Yellow: 0% (0/5)  
Red: 0% (0/5)

D00|V10F (Boulder City Nominal - Galaxy)

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											

Flown: 55% (16/29)  
Green: 0% (0/29)  
Yellow: 55% (16/29)  
Red: 0% (0/29)

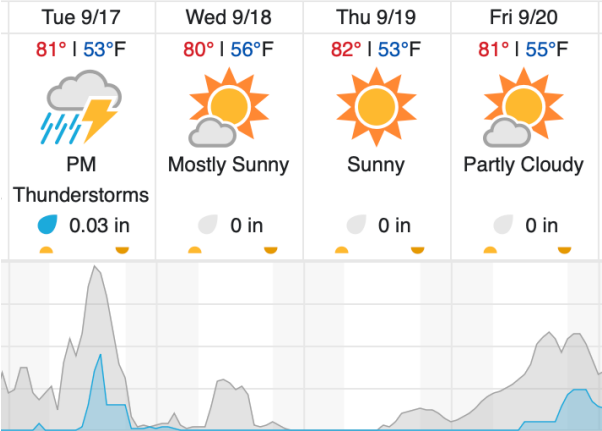
D00|W10D (Wiggle Timing Test - Galaxy)

1	2
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Flown: 100% (2/2)  
Green: 0% (0/2)  
Yellow: 100% (2/2)  
Red: 0% (0/2)

Weather Forecast

Boulder CO



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

## **Flight Collection Plan for September 17, 2024**

### **Flyority 1**

Collection Area: NIS Offset Flight

Flight Plan Name: D10\_O10C\_NIS\_Offset\_v3\_PRM

35° On-station Time: 1600 UTC / 1000 L

### **Flight Crew**

Matt (Lidar), John (NIS), Cameron (Ground)