



## Payload 3 Daily Flight Report



**Date:** 2025-04-17

**Flight Campaign ID:** P3C1

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

**Aircraft:** N821AR

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

**Sites Flown:** H10C (NEON Headquarters Lidar Test - Riegl), W10C (Wiggle Timing Test - Riegl)

**Days left in Domain:** 13

**Report Author:** John

**Lidar Operators:** John

**Spectrometer Operators:** Cameron

**Pilots:** Jeff, Justin

**Ground Crew:** Elissa, Mitch

**Flight Hours:** 00:50

**Hours until maintenance:** 117.90

**GPS Instruments:** AOP\_KBDU

### Summary

Completed the HQ lidar validation flight followed by the Wiggle Timing Test.

### Concerns

On pre-flight the NIS was stable at +4C degrees above normal Focal Plane temperature; after resetting the config file, it recovered to 136K.

### Comments

Plane placed inside hangar in anticipation of poor weather.

### Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (\*)

D00|H10C

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

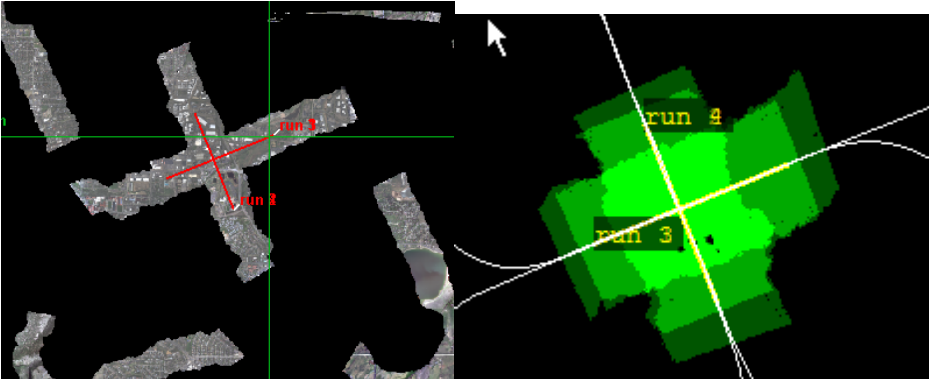
Total number of lines flown: 4

D00|W10C

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

Total number of lines flown: 2

Flight Screenshots



NIS HQ

Lidar HQ



NIS Wiggle

Lidar Wiggle

Cumulative Domain Coverage

D00|B10E (Riegl Boresight Calibration - 1600m, 1000m, 500m)

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: 0% (0/20)  
Yellow: 85% (17/20)  
Red: 15% (3/20)  
\* Flown within 35deg solar angle

D00|H10C (NEON Headquarters Lidar Test - Riegl)

1	2	3	4
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Flown: 100% (4/4)  
Green: 0% (0/4)  
Yellow: 100% (4/4)  
Red: 0% (0/4)  
\* Flown within 35deg solar angle

D00|N10D (Nominal Runway at KBDU - Riegl)

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: 86% (24/28)  
Green: 7% (2/28)  
Yellow: 68% (19/28)  
Red: 11% (3/28)  
\* Flown within 35deg solar angle

D00|O10B (NIS Offset - Riegl)

1	2
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Flown: 0% (0/2)  
Green: 0% (0/2)  
Yellow: 0% (0/2)  
Red: 0% (0/2)  
\* Flown within 35deg solar angle

D00|R10C (Table Mountain Radiometric Calibration - Riegl)

1	2	3	4	5
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Flown: 0% (0/5)  
Green: 0% (0/5)  
Yellow: 0% (0/5)  
Red: 0% (0/5)  
\* Flown within 35deg solar angle

D00|R10D (Boulder Airport Radiometric Calibration)

1	2	3	4	5
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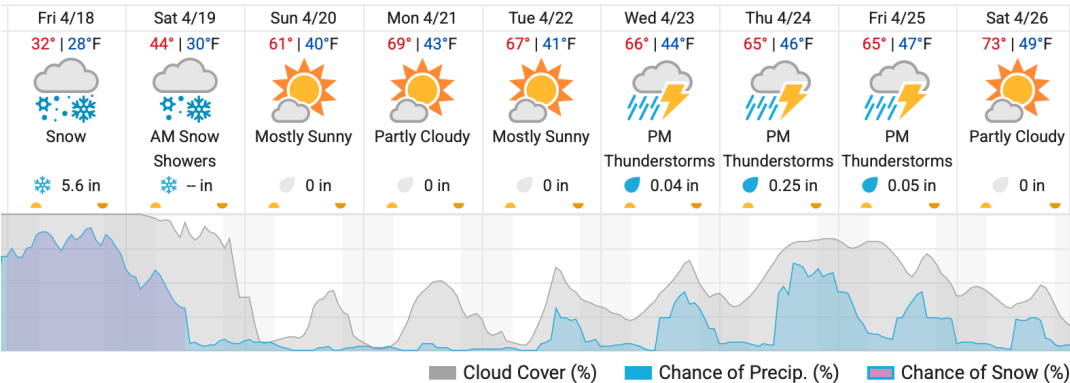
Flown: 100% (5/5)  
Green: 40% (2/5)  
Yellow: 60% (3/5)  
Red: 0% (0/5)  
\* Flown within 35deg solar angle

D00|W10C (Wiggle Timing Test - Riegl)

1	2
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Flown: 100% (2/2)  
Green: 0% (0/2)  
Yellow: 100% (2/2)  
Red: 0% (0/2)  
\* Flown within 35deg solar angle

Weather Forecast



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

## **Flight Collection Plan for April 2025**

### **Flyority 1**

Collection Area: Table Mountain Radiometric Calibration

Flight Plan Name: D10\_R10C\_Rad\_Cal\_TBMT\_v1\_Q780

45° On-station Time: 1640 UTC / 1040 L

Additional Considerations: Ground should be dry.

### **Flyority 2**

Collection Area: NIS Offset Flight

Flight Plan Name: D10\_O10B\_NIS\_Offset\_v2\_Q780

35° On-station Time: 1540 UTC / 0940 L

**Crew:** Cam (Lidar), Mitch (NIS), John (Ground)