



Payload 3 Daily Flight Report



**Date:** 2024-04-11  
**Flight Campaign ID:** P3C1  
**Airport, FBO ID, City:** Boulder Municipal Airport (KBDU) - Boulder, CO  
**Aircraft:** N821AR

**Domain:** 00 (Training & Calibration)  
**Sites Flown:** B10E (Riegl Boresight Calibration - 1600m, 1000m, 500m)  
**Days left in Domain:** 15

**Report Author:** Matt  
**Lidar Operators:** Matt                      **Flight Hours:** 01:51  
**Spectrometer Operators:** Nick           **Hours until maintenance:** 102.55  
**Pilots:** Justin, Will                         **GPS Instruments:** AOP\_KBDU, S-COGY  
**Ground Crew:** John

**Summary**

- Clear skies along the front range allowed us to complete the B10E Boresight calibration flight.

**Concerns**

- Ongoing connection issues with certain folders on the lidar crystal computer

**Comments**

- Matt certified on P3 Lidar, Nick certified on NIS and John certified on Ground.

**Daily Coverage**

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

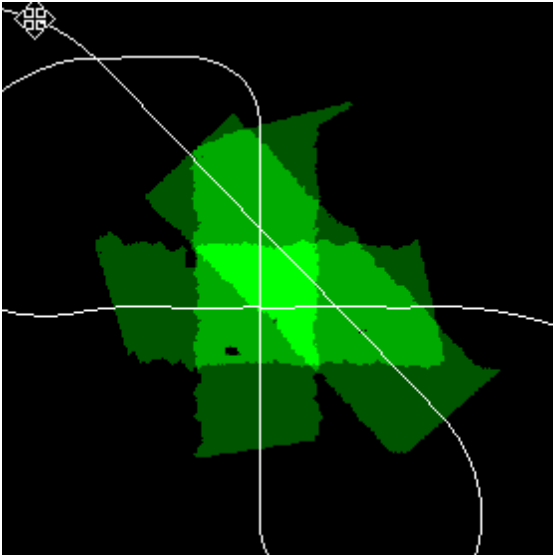
Line #
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D00|B10E

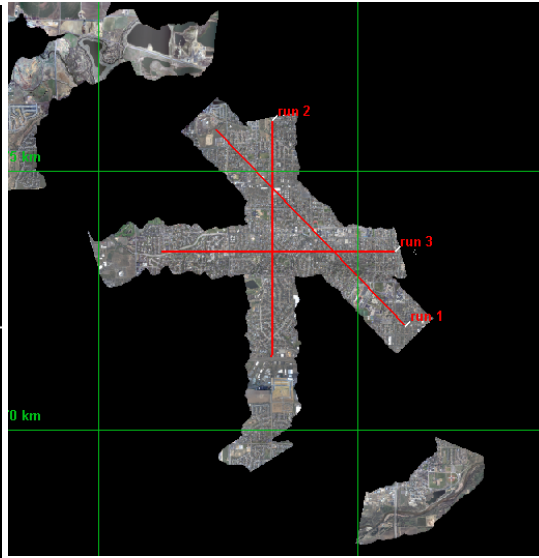
Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																				

Total number of lines flown: 20

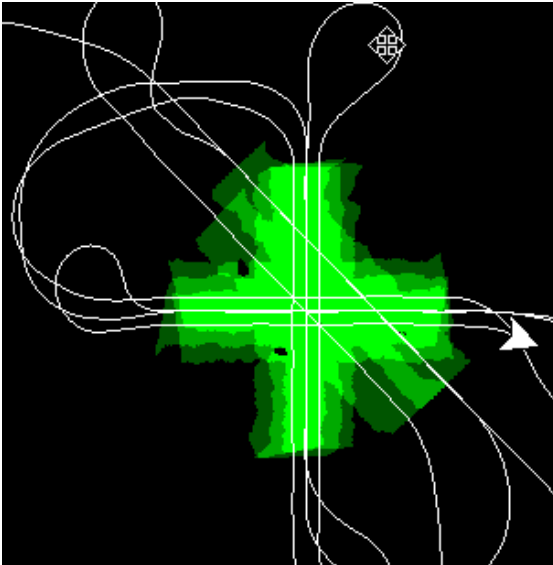
# Flight Screenshots



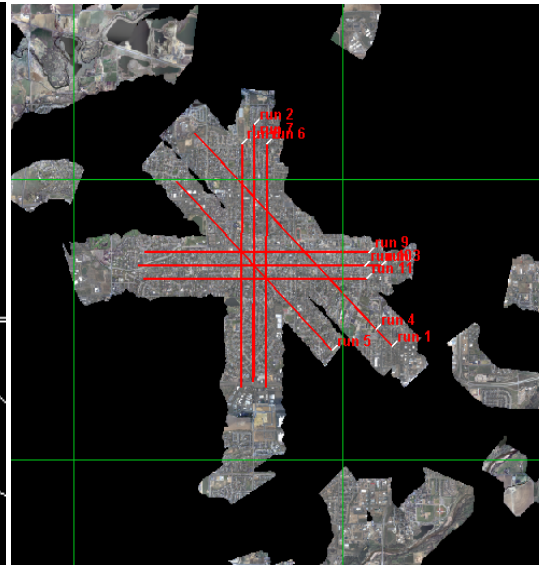
1600m Lidar



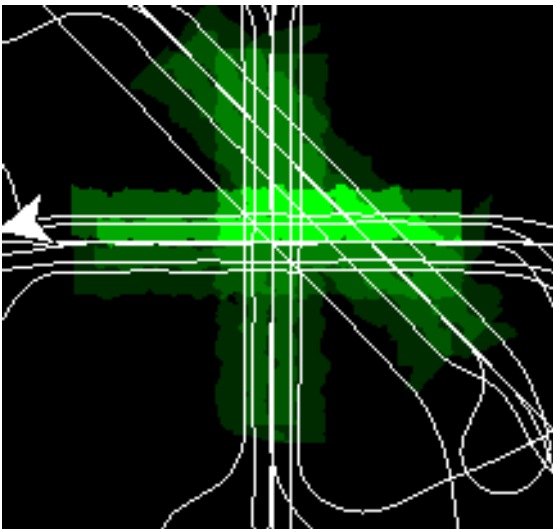
1600m NIS



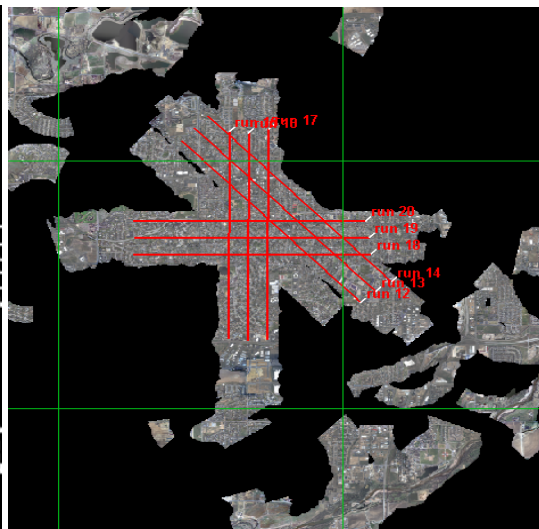
1000m Lidar



1000m NIS



500m Lidar



500m NIS

## Pictures



AOP Preflight Operations



Greeley, CO

## 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: 100% (20/20)  
 Red: 0% (0/20)

### 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)

### 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: 0% (0/28)  
 Yellow: 0% (0/28)  
 Red: 86% (24/28)

### 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)

### 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)

D00|R10D (Boulder Airport Radiometric Calibration)

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|V10C (Boulder City South)

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												

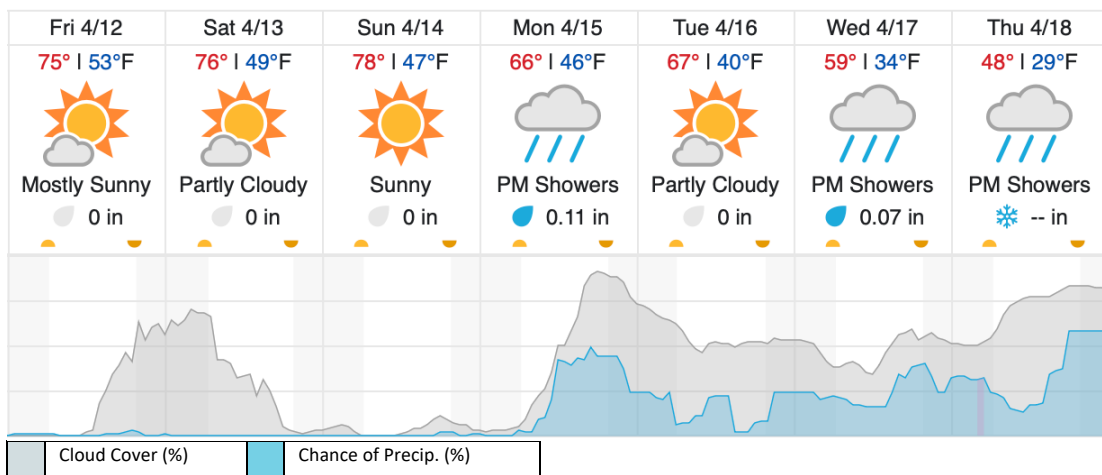
Flown: 7% (2/29)  
 Green: 0% (0/29)  
 Yellow: 0% (0/29)  
 Red: 7% (2/29)

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)

Weather Forecast



Flight Collection Plan for 12 April 2024

Flyority 1

Collection Area: Table Mountain Radiometric Calibration Flight Plan Name: D10\_R10C\_Rad\_Cal\_TBMT\_v1\_Q780 45°  
 On-station Time: 1730 UTC / 1130 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: 1620 UTC / 1030 L

Flight Crew

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