



## Payload 3 Daily Flight Report



**Date:** 2024-03-27

**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:** 2

**Report Author:** Cameron

**Lidar Operators:** Cameron

**Flight Hours:** 00:52

**Spectrometer Operators:** Elissa

**Hours until maintenance:** 121.23

**Pilots:** Will, Justin

**GPS Instruments:** AOP\_KBDU

**Ground Crew:** Mitch, Matt

### Summary

- The crew completed two calibrations flights under yellow conditions. In addition, the crew completed several ASO recertifications.

### Concerns

- The NIS wasn't displaying a waterfall upon startup, it was determined that the Camera controller card box on the back of the DCC needed restarting. We will keep monitoring and replace if necessary.
- System lost communication with chiller thrusting the payload into SAFE mode. A newly made cable is the suspect however we will continue to monitor this issue.
- Connectivity issues with the Flight ID folder. The issue seemingly resolved itself after landing.

### Comments

- Cameron is recertified on the Lidar.
- Mitch is recertified on Ground Activities.
- Elissa is recertified on NIS.
- The flight crew is evaluating moving the D17 transit to Friday due to a weather system potentially moving through the area.

### 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|H10C

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

Total number of lines flown: 4

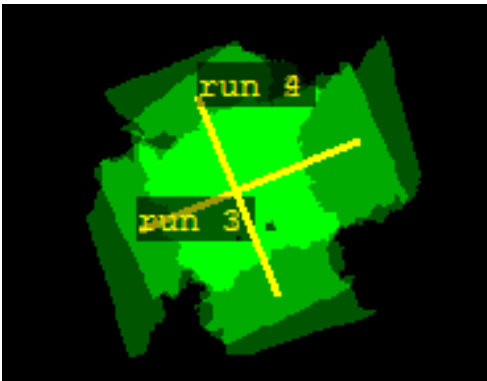
D00|W10C

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

Total number of lines flown: 3

Flight Screenshots

H10C Lidar



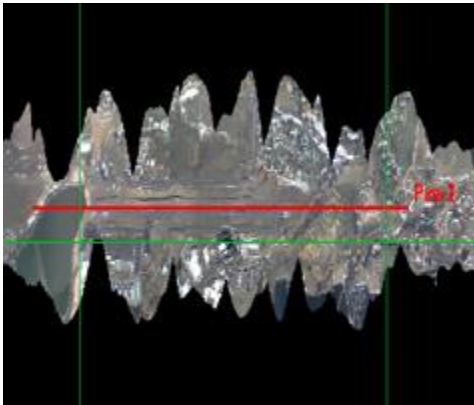
H10C NIS



W10C Lidar



W10C NIS



Pictures



A beautiful view of the front range this morning looking southwest.

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
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

Flown: 0% (0/20)  
Green: 0% (0/20)  
Yellow: 0% (0/20)  
Red: 0% (0/20)

D00|H10C (NEON Headquarters Lidar Test - Riegl)

1	2	3	4
---	---	---	---

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: 0% (0/5)

Green: 0% (0/5)

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: 0% (0/29)

Green: 0% (0/29)

Yellow: 0% (0/29)

Red: 0% (0/29)

#### D00|W10C (Wiggle Timing Test - Riegl)

1	2
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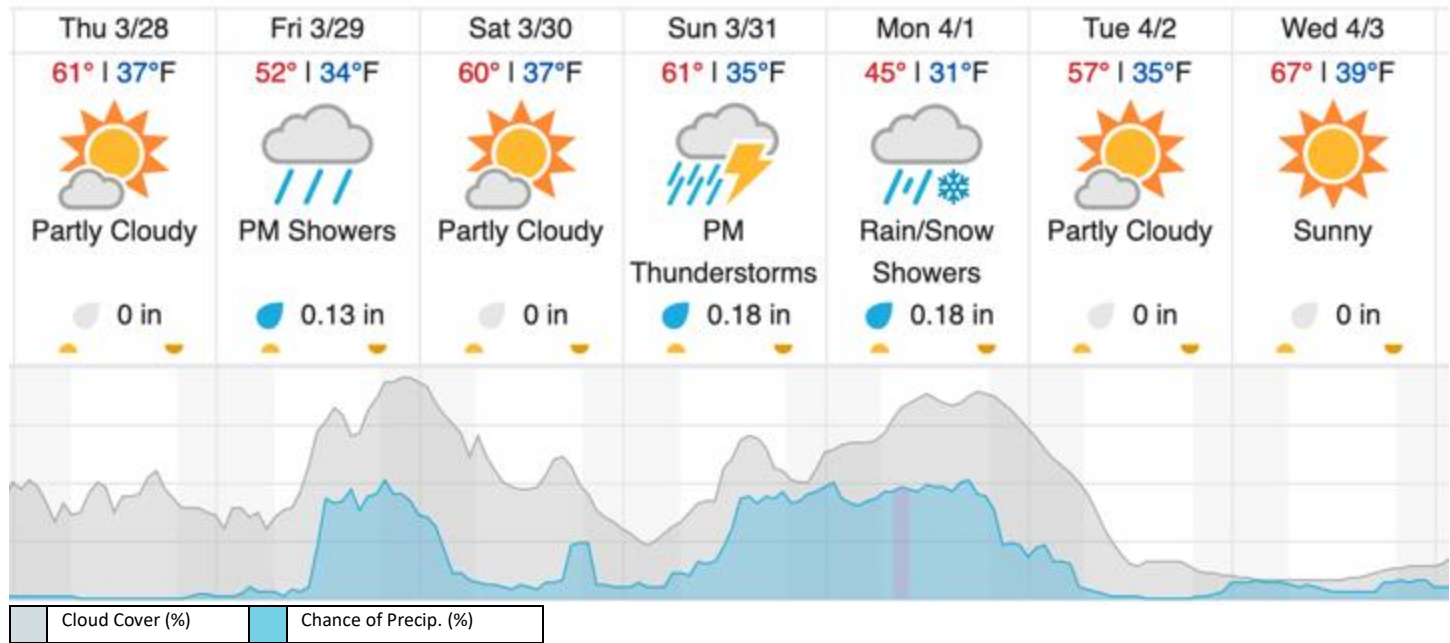
Flown: 100% (2/2)

Green: 0% (0/2)

Yellow: 100% (2/2)

Red: 0% (0/2)

## Weather Forecast



source: wunderground.com

## Flight Collection Plan for 28 March 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: Boresight Calibration – Greeley, CO

Flight Plan Name: D10\_B10E\_Boresight\_1600m\_Q780 (RiAcquire name: D10\_B10E\_Boresight\_Apx\_Q780)

30° On-station Time: 1550 UTC / 0950 L

Additional Considerations: No recent snowfall, clear roofs required.

### Flyority 3

Collection Area: NIS Offset Flight

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

35° On-station Time: 1620 UTC / 1030 L

## Flight Crew

Mitch (Lidar), Cam (NIS), Elissa (Ground), Matt (Ground)