Payload 2 Daily Flight Report

Date: 2025-05-12
Flight Campaign ID: P2C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO
Aircraft: N615AR

Domain: 00 (Training & Calibration)
Sites Flown: V10C (Boulder City South)
Days left in Domain: 9

Report Author: Mike
Lidar Operators: Mike
Spectrometer Operators: Matt
Pilots: Vince, Mac
Ground Crew: Nick

Flight Hours: 01:31
Hours until maintenance: 109.50
GPS Instruments: AOP_KBDU

Summary

A training flight on the new Riegl system was conducted for Mike. Eight lines of the Boulder City Nominal flight plan were flown.

Concerns

Faulty disks were determined to be the cause of the inability to read the “RiAcquire” disk from Saturday’s Boresight calibration flight. In addition, improvements to the camera configuration are needed to properly trigger the camera for adequate coverage. After issues are resolved, the Boresight will need to be flown again.

Comments

-Troubleshooting revealed data is intact for the 2025050916 Nominal Runway and Wiggle Timing flight and does not require re-flight at this time.
-Twice the automatic line sequencing did not advance properly on today’s flight. It is unknown why this occurred but is something for ASO’s to look out for.
-New ASO Alyssa V. joined the crew in Boulder. Welcome aboard!

Daily Coverage

Estimated Cloud Cover Key

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

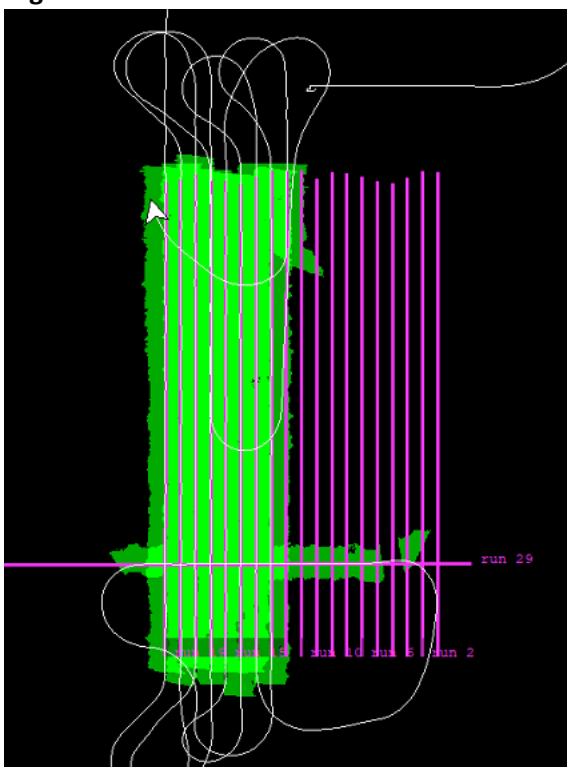
Solar Angle Less Than 40 degrees: (*)

D00|V10C

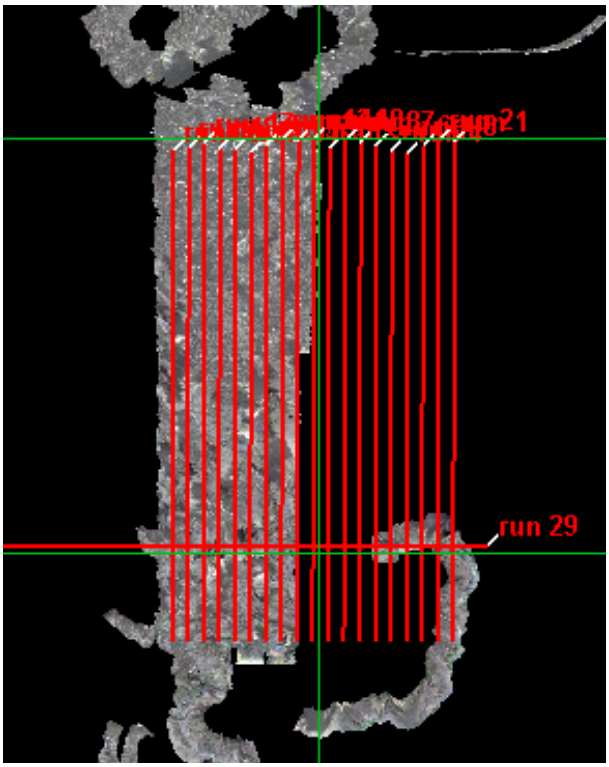
Line #	12	13	14	15	16	17	18	19
Lidar	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover								

Total number of lines flown: 8

Flight Screenshots



V10C Lidar



V10C NIS

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)
* Flown within 35deg solar angle

D00|H10C (NEON Headquarters Lidar Test - Riegl)

1	2	3	4

Flown: 0% (0/4)
Green: 0% (0/4)
Yellow: 0% (0/4)
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: 93% (26/28)
Green: 0% (0/28)
Yellow: 0% (0/28)
Red: 93% (26/28)
* Flown within 35deg solar angle

D00|O10B (NIS Offset - Riegl)

1	2

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

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

Flown: 100% (5/5)
Green: 100% (5/5)
Yellow: 0% (0/5)
Red: 0% (0/5)
* Flown within 35deg solar angle

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																		

Flown: 41% (9/22)
Green: 36% (8/22)
Yellow: 5% (1/22)
Red: 0% (0/22)
* Flown within 35deg solar angle

D00|V10D (Boulder City West - 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															

Flown: 0% (0/25)
Green: 0% (0/25)
Yellow: 0% (0/25)
Red: 0% (0/25)
* Flown within 35deg solar angle

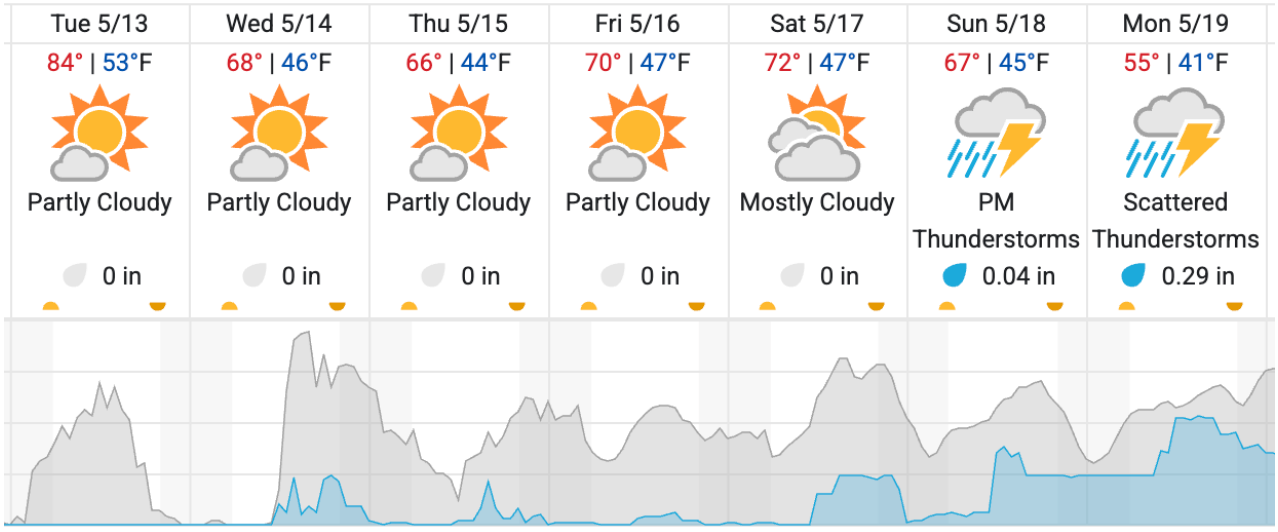
D00|W10C (Wiggle Timing Test - Riegl)

1	2

Flown: 100% (2/2)
Green: 50% (1/2)
Yellow: 50% (1/2)
Red: 0% (0/2)
* Flown within 35deg solar angle

Weather Forecast

Boulder, CO



source: wunderground.com

Flight Collection Plan for 13 May 2025

Flyority 1
Collection Area: Table Mountain Radiometric Calibration
Flight Plan Name: D10_R10C_Rad_Cal_TBMT_v1_Q780
45° On-station Time: 1620 UTC / 1020 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: 1450 UTC / 0850 L
Additional Considerations: No recent snowfall, clear roofs required.

Flyority 3
Collection Area: NEON HQ Lidar Validation
Flight Plan Name: D10_H10C_HQ_val_v1_Q780
On-Station Time: Daylight – No solar angle restrictions.

Flyority 4
Collection Area: Black Forest
Flight Plan Name: D10_BLKF_Black_Forest_v6_VQ780
On-Station Time: Daylight – No solar angle restrictions.

Flyority 5
Collection Area: NIS Offset Flight
Flight Plan Name: D10_O10B_NIS_Offset_v2_Q780
35° On-station Time: 1540 UTC / 0940 L

Crew: Mike (Lidar), Matt (NIS), Nick (Ground), Alyssa (In-training)