



Payload 2 Daily Flight Report



Date: 2025-05-10

Flight Campaign ID: P2C1

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

Aircraft: N615AR

Domain: 00 (Training & Calibration)

Sites Flown: B10E (Riegl Boresight Calibration - 1600m, 1000m, 500m)

Days left in Domain: 11

Report Author: Matt

Lidar Operators: Matt

Spectrometer Operators: Mike

Pilots: Vince, Mac

Ground Crew: Nick

Flight Hours: 02:11

Hours until maintenance: 111.02

GPS Instruments: AOP_KBDU, S-COGY

Summary

The crew was able to get airborne this morning and complete the Riegl Boresight calibration (B10E) over Greeley, CO

Concerns

-NIS Geopaint still displaying an angled swath.

-HotelKit 2 unable to recognize Data recorder and RiAquire SSD. Science team is investigating

Daily Coverage

Estimated Cloud Cover Key

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

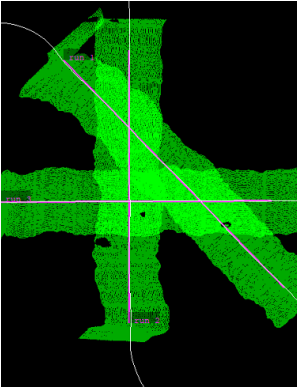
Solar Angle Less Than 40 degrees: (*)

D00|B10E

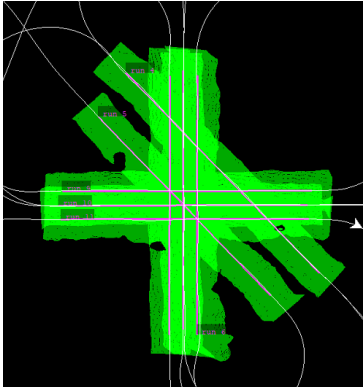
Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																				

Total number of lines flown: 20

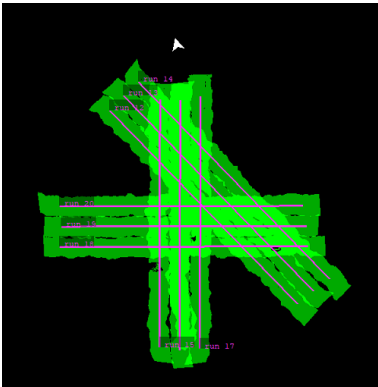
Flight Screenshots



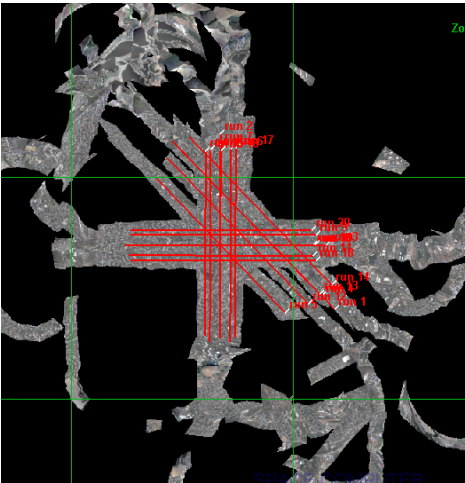
Lidar 1600m



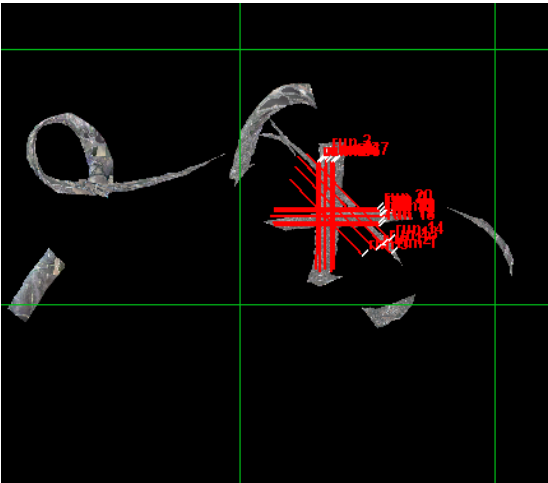
Lidar 1000m



Lidar 500m



NIS B10E



Warped swath in Geopaint

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: 100% (20/20)
Yellow: 0% (0/20)
Red: 0% (0/20)
* Flown within 35deg solar angle

D00|H10C (NEON Headquarters Lidar Test - Riegl)

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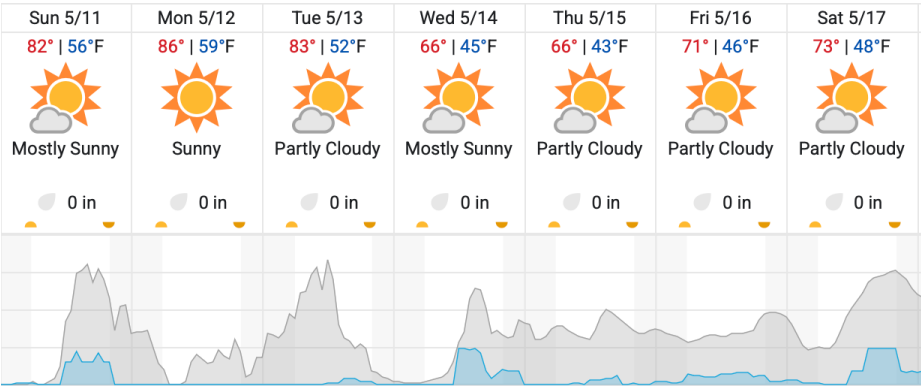
Flown: 100% (5/5)
Green: 100% (5/5)
Yellow: 0% (0/5)
Red: 0% (0/5)
* Flown within 35deg solar angle

D00|W10C (Wiggle Timing Test - Riegl)

1	2
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Flown: 100% (2/2)
Green: 50% (1/2)
Yellow: 50% (1/2)
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 11 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: Nominal Runway Survey Flight Plan

Name: D10_N10D_Nominal_Rnwy_v8_Q780

On-Station Time: Daylight – No solar angle restrictions.

Additional Considerations: Runway should not be wet or snow covered.

Flyority 4

Collection Area: NEON HQ Lidar Validation

Flight Plan Name: D10_H10C_HQ_val_v1_Q780

On-Station Time: Daylight – No solar angle restrictions.

Flyority 5

Collection Area: Wiggle Timing Test

Flight Plan Name: D10_W10C_Wiggle_Test_v6_Q780

40° On-station Time: 1550 UTC / 0950 L

Additional Considerations: Runway should not be wet, or snow covered.

Flyority 6

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)