



Payload 3 Daily Flight Report



Date: 2024-04-09

Flight Campaign ID: P3C1

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

Aircraft: N821AR

Domain: 00 (Training & Calibration)

Sites Flown: R10D (Boulder Airport Radiometric Calibration)

Days left in Domain: 17

Report Author: Cameron

Lidar Operators: Cameron

Flight Hours: 00:36

Spectrometer Operators: Matt

Hours until maintenance: 104.40

Pilots: Justin, Will

GPS Instruments: AOP_KBDU

Ground Crew: Elissa

Summary

- Clear skies over the Boulder airport allowed for the successful completion of the R10D (Boulder Airport Radiometric Calibration) flight plan in pristine science sky conditions.

Concerns

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

Comments

- Matt is now recertified on the NIS.

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

Line #

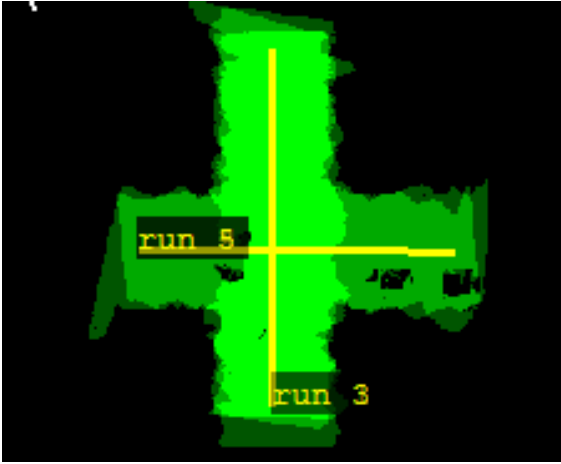
D00|R10D

Line #	1	2	3	4	5
Lidar	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓
Cloud Cover					

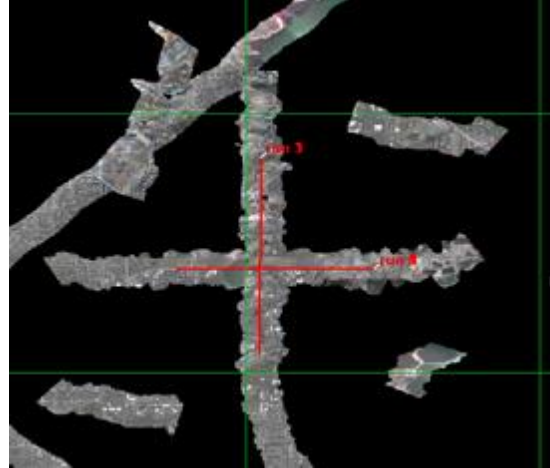
Total number of lines flown: 5

Flight Screenshots

Lidar Swath



NIS GeoPaint



Pictures

Flying near the foothills during calibration flights on 20240409



The science team working hard to deploy the tarps prior to today's calibration flight.



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: 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
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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)

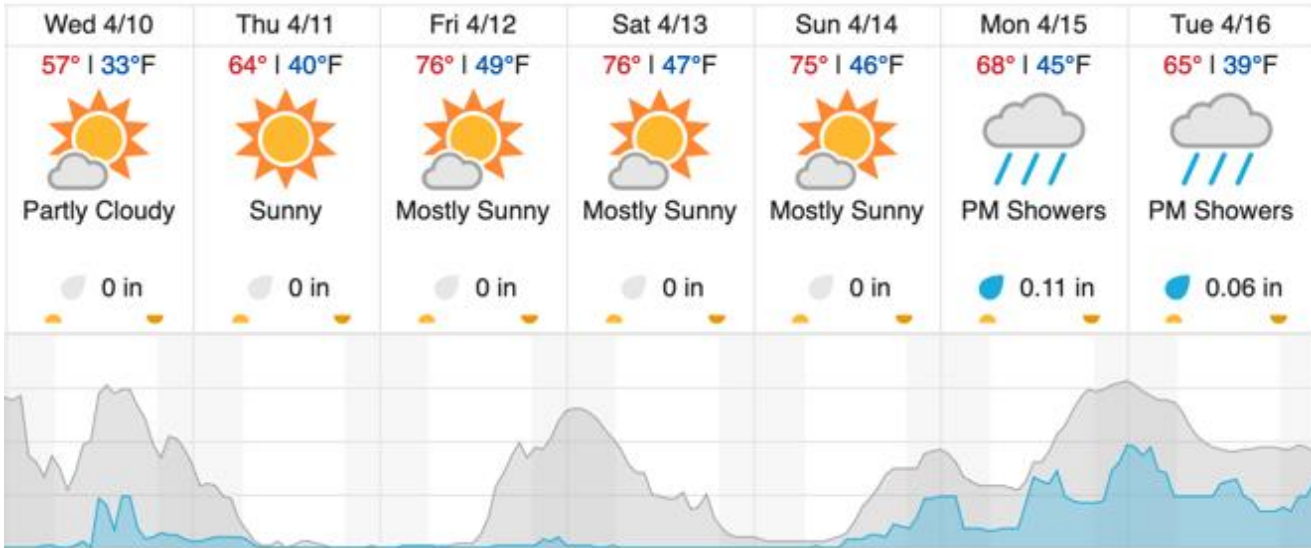
D00|W10C (Wiggle Timing Test - Riegl)

1 2

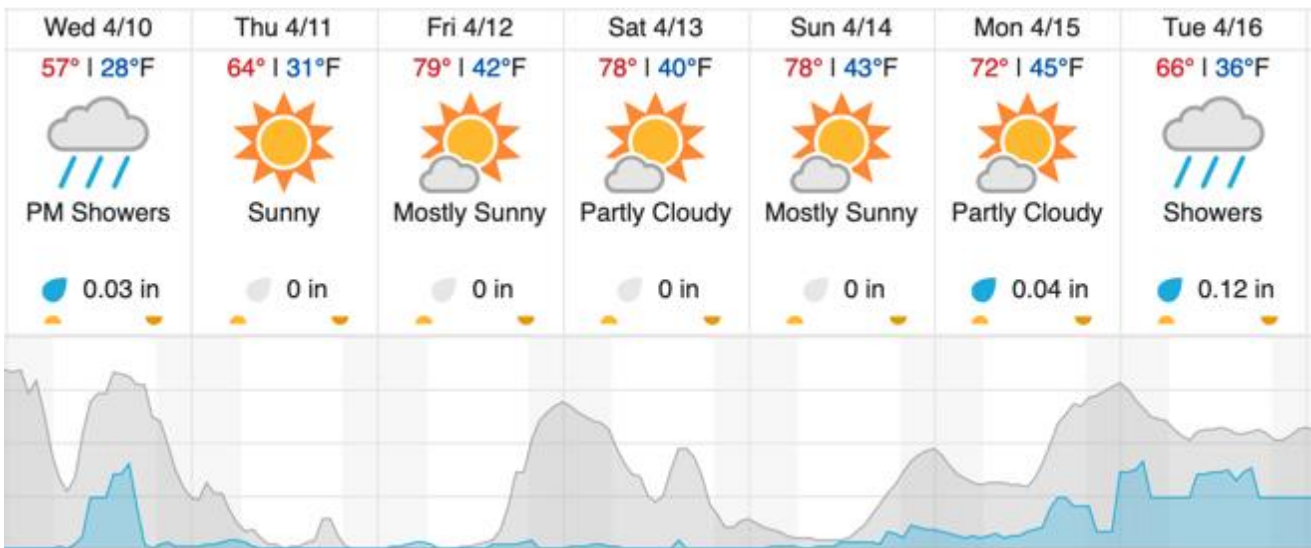
Flown: 100% (2/2)
 Green: 0% (0/2)
 Yellow: 100% (2/2)
 Red: 0% (0/2)

Weather Forecast

Boulder, CO



Greeley, CO



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

Flight Collection Plan for 10 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: 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

Matt (Lidar), John (NIS), Cam (Ground)