



Payload 3 Daily Flight Report

Date: 2025-09-18

Flight Campaign ID: P3C1

Airport, FBO ID, City: Central Colorado Regional Airport (KAEJ) - Buena Vista, CO; Boulder Municipal Airport (KBDU) - Boulder, CO

Aircraft: N821AR

Domain: 00 (Training & Calibration), 13 (Southern Rockies & Colorado Plateau)

Sites Flown: R10D (Boulder Airport Radiometric Calibration), UPTA (Upper Taylor Watershed (UPTA) Camera Gap-fill flight plan)

Days left in Domain: 5

Report Author: Mitch

Lidar Operators: Mitch

Flight Hours: 01:42

Spectrometer Operators: Mitch

Hours until maintenance: 43.62

Pilots: Vince, Greg

GPS Instruments: AOP_KBDU, RTVRN-COA1, RTVRN-SA01, RTVRN-TOCB, S-CODE

Ground Crew: Mitch, Nick

Summary

Crew departed Buena Vista this morning and collected the UPTA Camera Gap-fill lines en route to Boulder before collecting the radiometric calibration flight plan over KBDU, all under green conditions.

Concerns

- A creative GPS solution, potentially PPRTX, may be needed for today's flight, as it was started at KAEJ and ended at KBDU, with minimal GPS stations near KAEJ or UPTA. Stations within 60km noted and will be uploaded to the GCS.
- Database coverage report not properly clearing coverage of calibration lines conducted in the Spring. The cumulative summaries for today were manually edited.

Comments

While not required, spectrometer data was still collected over the two UPTA lines. Conditions were so pristinely clear over Crested Butte that it felt like a missed opportunity not to collect.

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (*)

D13|UPTA

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

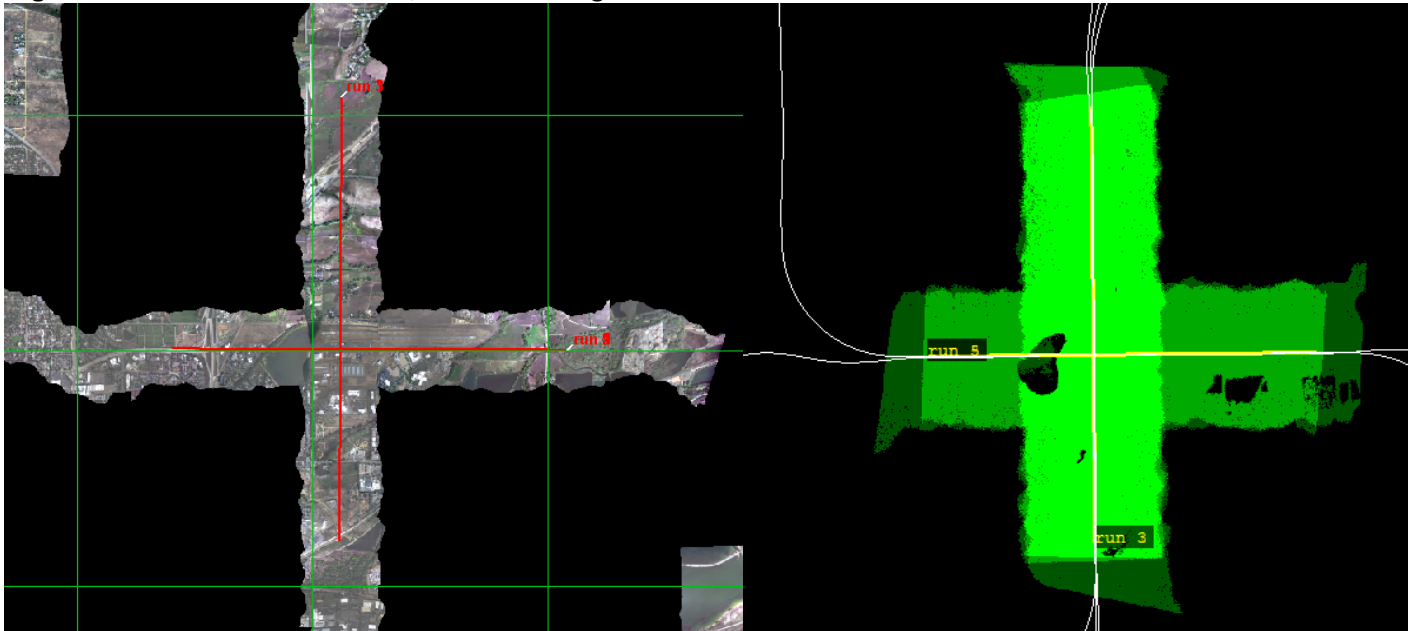
Total number of lines flown: 2

D00|R10D

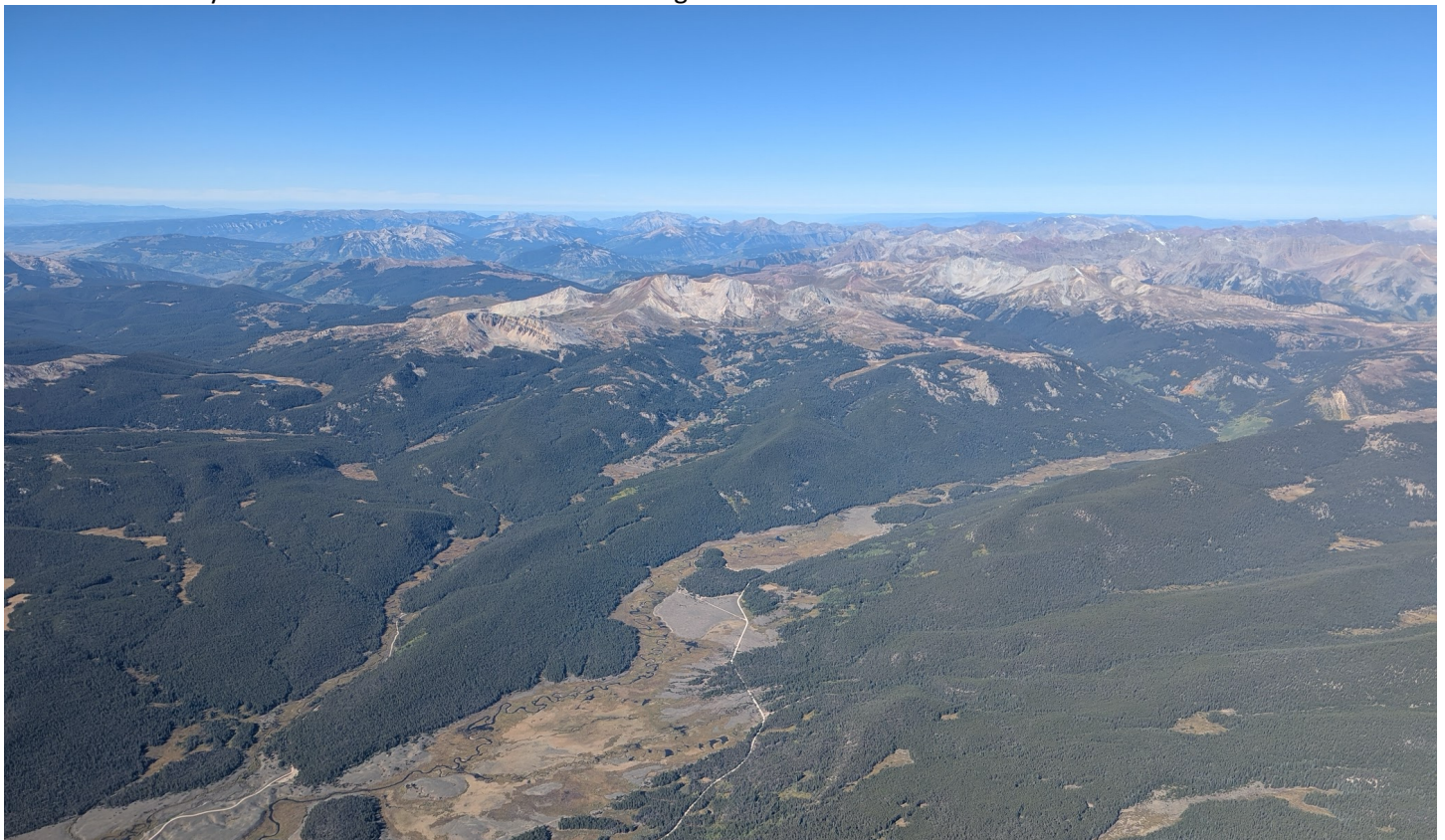
Line #	1	2	3	4	5
Lidar	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓
Cloud Cover					

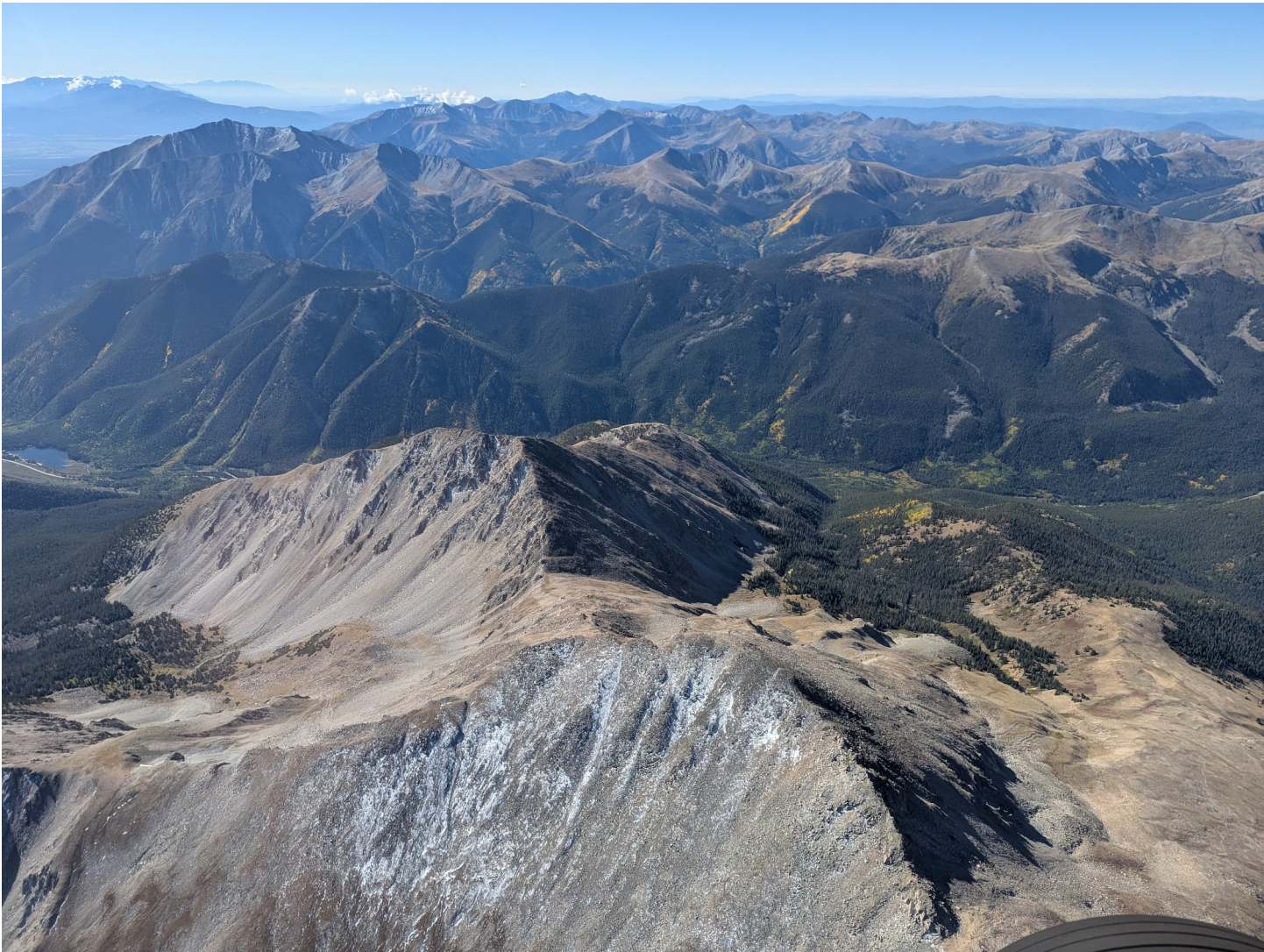
Total number of lines flown: 5

Flight Screenshots: NIS on the left, Lidar on the right



Pictures: Perfectly clear and calm over UPTA this morning.





Above: First signs of snow while flying above the Presidential Range.

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)
* 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: 0% (0/28)
Green: 0% (0/28)

Yellow: 0% (0/28)
Red: 0% (0/28)
* 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|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|W10C (Wiggle Timing Test - Riegl)

1 2

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

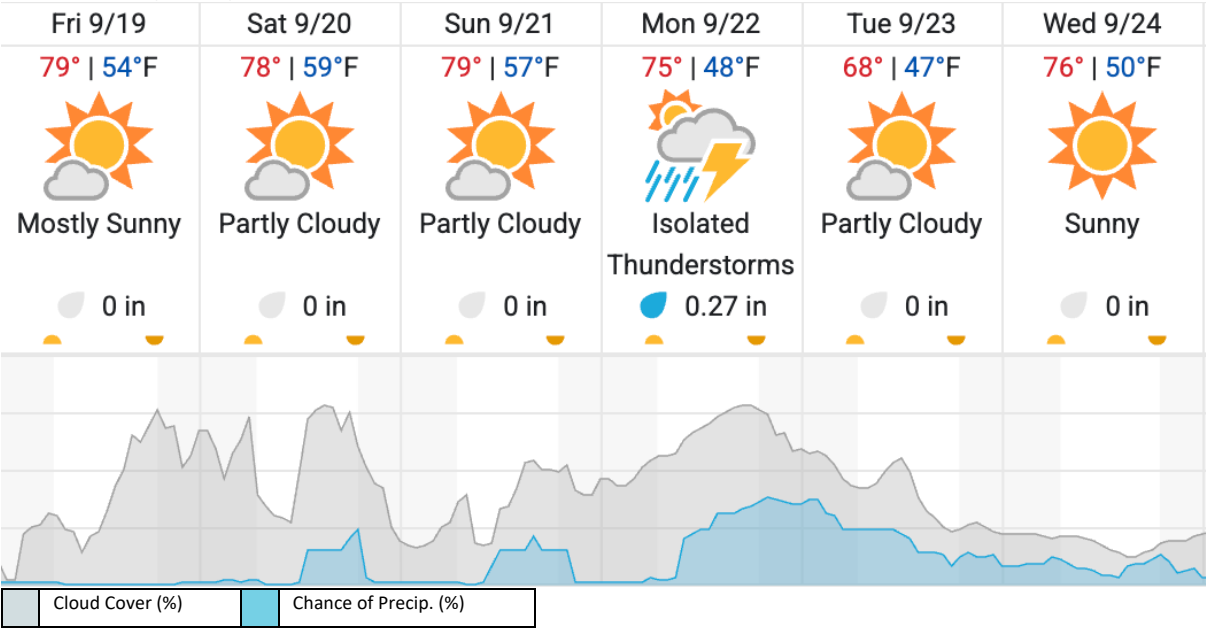
D13|UPTA (Upper Taylor Watershed (UPTA) Camera Gap-fill flight plan)

1* 2*

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

Weather Forecast

Boulder, CO (KBDU)



source: wunderground.com

Flight Collection Plan for 19 September 2025

Flyority 1

Collection Area: Boresight Calibration – Greeley, CO

Flight Plan Name: D10_B10E_Boresight_1600m_Q780

30° On-station Time: 1530 UTC / 0930 L

Additional Considerations: No recent snowfall, clear roofs required.

Flyority 2

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 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: Wiggle Timing Test

Flight Plan Name: D10_W10C_Wiggle_Test_v6_Q780

40° On-station Time: 1640 UTC / 1040 L

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

Flyority 5

Collection Area: NIS Offset Flight

Flight Plan Name: D10_O10B_NIS_Offset_v2_Q780

35° On-station Time: 1600 UTC / 1000 L

Crew: Matt (Lidar), Mitch (NIS)