



Payload 1 Daily Flight Report



Date: 2023-08-29

Flight Campaign ID: P1C1

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

Aircraft: N331AR

Domain: 00 (Training & Calibration)

Sites Flown: N10F (Nominal Runway at KBDU - Galaxy), W10D (Wiggle Timing Test - Galaxy), H10D (NEON Headquarters Lidar Validation - Galaxy), R10F (Boulder Airport Radiometric Calibration - Galaxy)

Days left in Domain: 5

Report Author: Elissa

Lidar Operators: Elissa

Spectrometer Operators: Matt

Pilots: Vince, Brent

Ground Crew: Abe

Flight Hours: 01:53

Hours until maintenance: 34.17

GPS Instruments: AOP_KBDU

Summary

After completing the remaining lines of the Nominal Runway flight plan, we were able to fly three additional calibration flights. This included a coincident collection with Payload 3 of the Radiometric Calibration flight over Boulder airport.

Concerns

None

Comments

- Due to wet ground conditions, R10F (Boulder Airport) was flown in lieu of R10E (Table Mountain).
- Yesterday's extraction is currently on hold in order to fast-track the extraction of the Radiometric Cal flight.
- With the possibility of completing cal flights tomorrow, we are evaluating pushing de-install up to Friday.

Daily Coverage

Estimated Cloud Cover Key

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

D00|N10F

Line #	23	24	25	27	28	29	30
Lidar	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓
Cloud Cover							

Total number of lines flown: 7

D00|W10D

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

Total number of lines flown: 2

D00|R10F

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

Total number of lines flown: 5

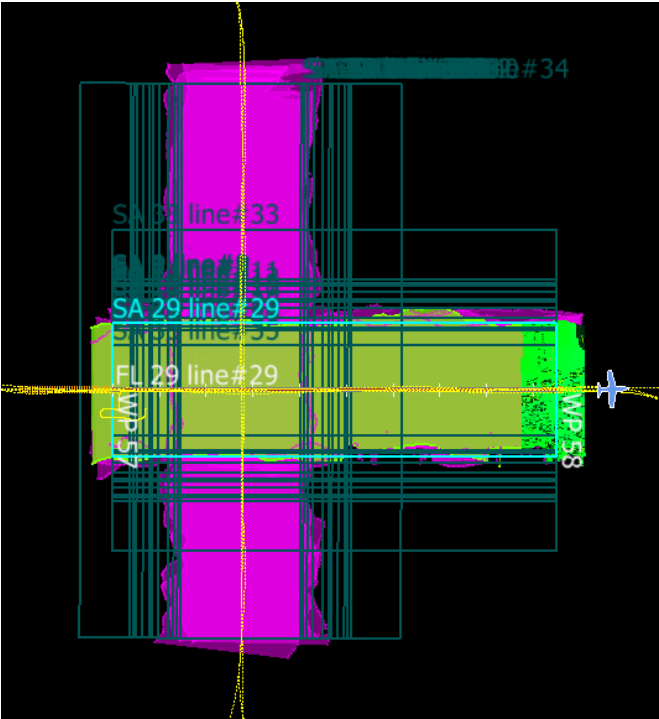
D00|H10D

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

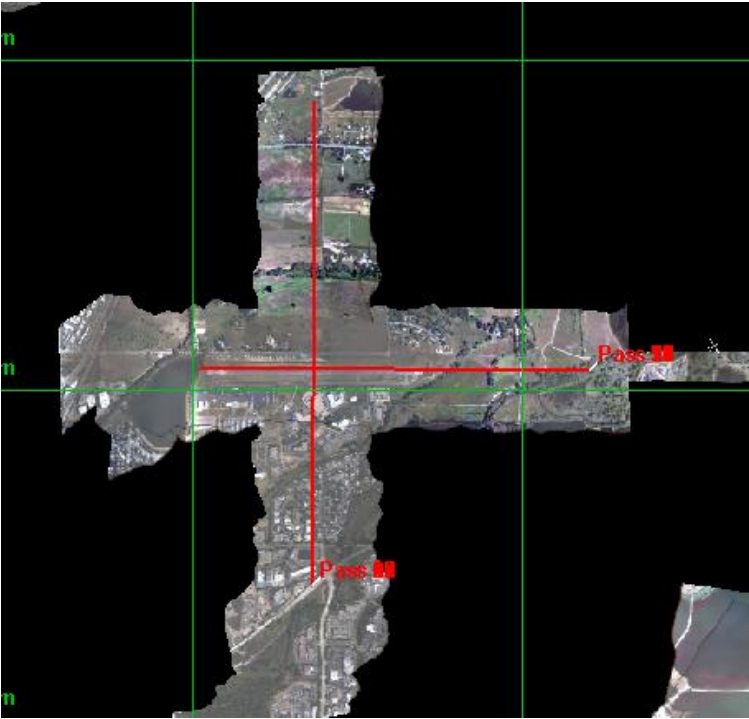
Total number of lines flown: 4

Flight Screenshots

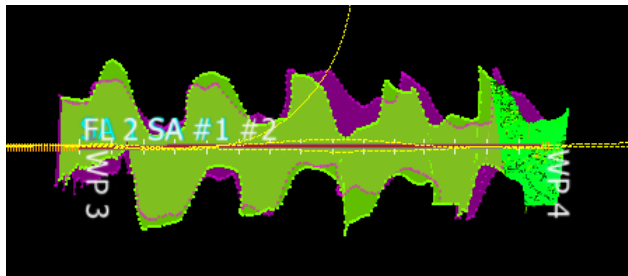
N10F – Lidar



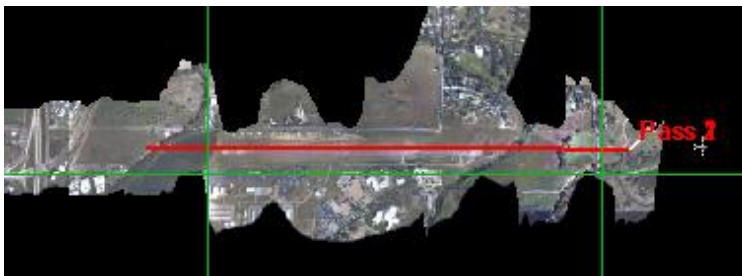
NIS



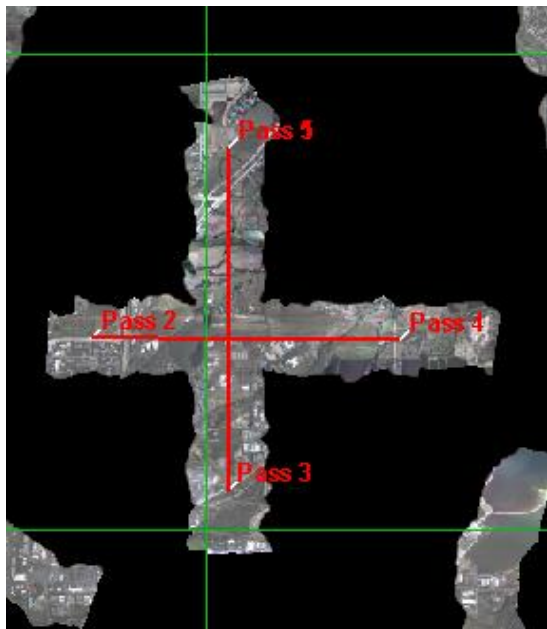
W10D – Lidar



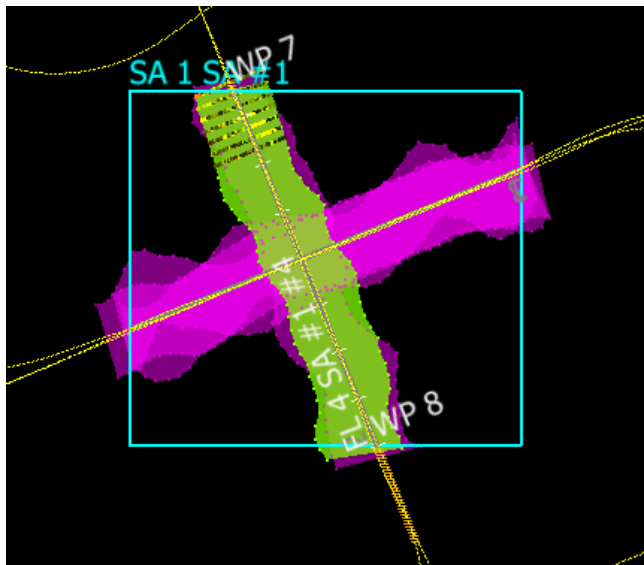
NIS



R10F – NIS



H10D – Lidar



NIS



Pictures



Turning over the Flatirons – Photo by Matt

Cumulative Domain Coverage

D00|B10F (Complete Greeley Boresight Geocalibration - 1500m, 1000m, 550m - Galaxy)

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|H10D (NEON Headquarters Lidar Validation - Galaxy)

1	2	3	4
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Flown: 100% (4/4)
Green: 100% (4/4)
Yellow: 0% (0/4)
Red: 0% (0/4)

D00 | N10F (Nominal Runway at KBDU - Galaxy)

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	30	31	32	33	34	35	36	37			

Flown: 100% (37/37)

Green: 19% (7/37)

Yellow: 27% (10/37)

Red: 54% (20/37)

D00 | R10F (Boulder Airport Radiometric Calibration - Galaxy)

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 | W10D (Wiggle Timing Test - Galaxy)

1	2
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Flown: 100% (2/2)

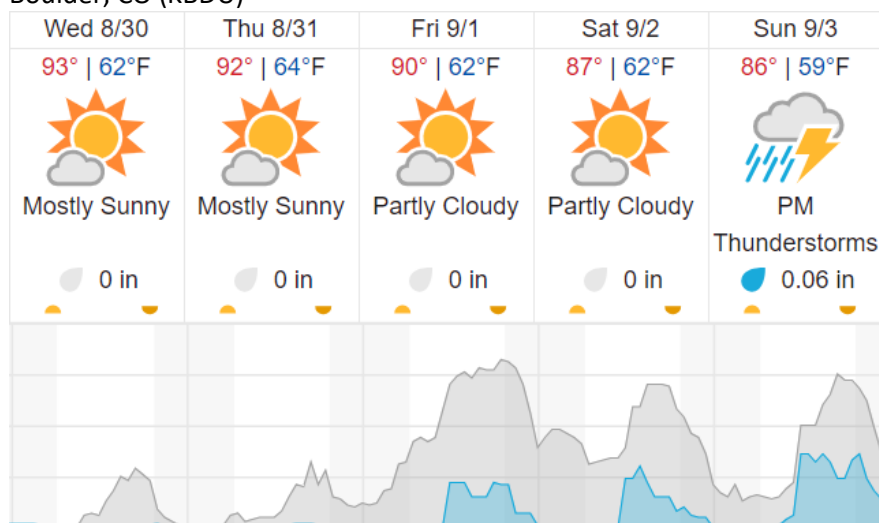
Green: 100% (2/2)

Yellow: 0% (0/2)

Red: 0% (0/2)

Weather Forecast

Boulder, CO (KBDU)



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

Flight Collection Plan for 30 August 2023

Flyority 1

Collection Area: Boresight Calibration – Greeley, CO

Flight Plan Name: D10_B10F_Boresight_Geocal_v9_PRM

30° On-station Time: 1510 UTC / 0910 L

Additional Considerations: No recent snowfall, clear roofs required.

Flight Crew

Abe (Lidar), Matt (NIS), Elissa (Ground)