Payload 1 Daily Flight Report

Date: 2024-09-13
Flight Campaign ID: P1C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO
Aircraft: N615AR

Domain: 00 (Training & Calibration)
Sites Flown: R10E (Table Mountain Radiometric Calibration - Galaxy)
Days left in Domain: 5

Report Author: Nick
Lidar Operators: Nick
Spectrometer Operators: Matt
Pilots: Justin, Will
Flight Hours: 02:17
Hours until maintenance: 26.48
GPS Instruments: AOP_KBDU

Summary

The crew took an aggressive plan to the air today and attempted several calibration flights. The Radiometric calibration flight was successfully completed coincident with Payload 3 at Table Mountain. Unfortunately, operator error today caused discrete lidar data to not be recorded. Significant haze from smoke may require repeating radiometric calibration flights if weather cooperates in the remaining schedule.

Thanks to Bridget, Andrew and Kris for sorting out a QAQC execution issue from yesterday's flight which is completed.

Calibration flights are not expected this weekend due to anticipated air traffic at the airport where the remaining calibration flights are. Normal air traffic and airspace constraints from the Longmont Airport Airshow are anticipated to impede flights over the airport.

Concerns

The number of pilot crews will shrink to a single set starting Monday due to late-notice NEON schedule extensions. Remaining flights are not expected to be impacted significantly.

Comments

Daily Coverage

Estimated Cloud Cover Key

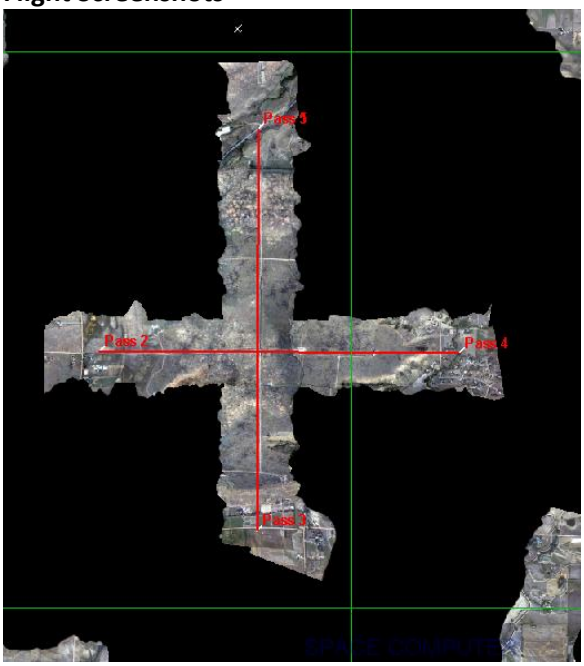
Green: 0-10%	Yellow: 11-50%	Red: >50%

D00|R10E

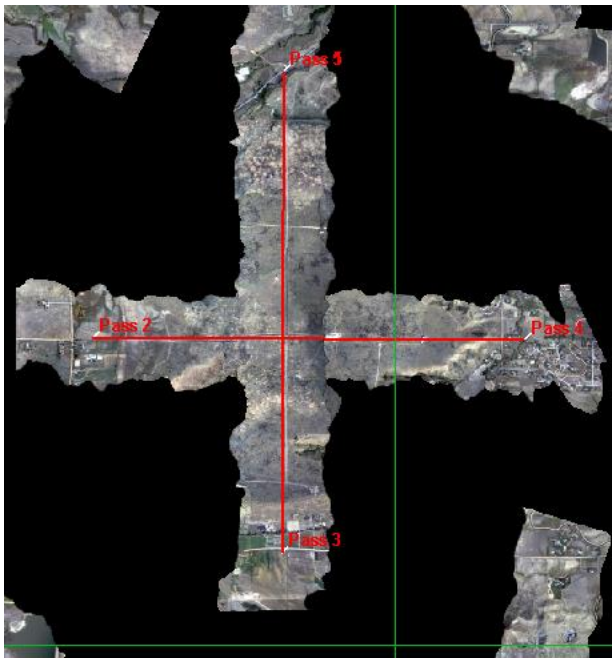
Line #	1	2	3	4	5
Lidar	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓
Cloud Cover					

Total number of lines flown: 5

Flight Screenshots



NIS screenshot, 40-degree solar angle



NIS screenshot, 45-degree solar angle

Pictures

None.

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

Flown: 100% (20/20)
Green: 10% (2/20)
Yellow: 90% (18/20)
Red: 0% (0/20)

D00|H10D (NEON Headquarters Lidar Validation - Galaxy)

1	2	3	4

Flown: 0% (0/4)
Green: 0% (0/4)
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: 0% (0/37)
Green: 0% (0/37)
Yellow: 0% (0/37)
Red: 0% (0/37)

D00|O10C (NIS Offset - Galaxy)

1	2

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

D00|R10E (Table Mountain Radiometric Calibration - Galaxy)

1	2	3	4	5

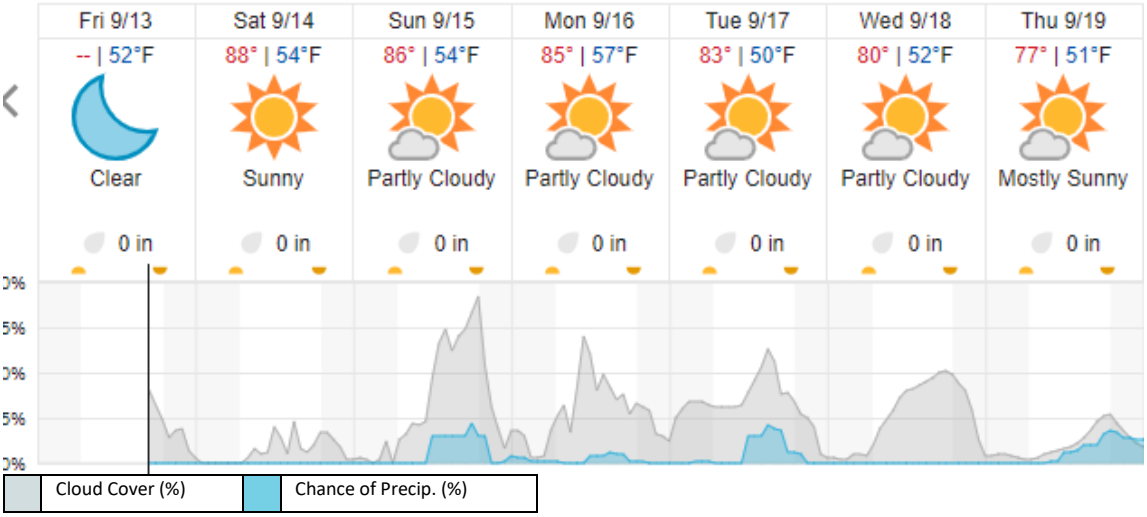
Flown: 100% (5/5)
Green: 100% (5/5)
Yellow: 0% (0/5)
Red: 0% (0/5)

D00|W10D (Wiggle Timing Test - Galaxy)

1	2

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

Weather Forecast
Boulder CO



source: wunderground.com

Flight Collection Plan for September 14, 2024
Flyority 1
Collection Area: Nominal Runway Survey
Flight Plan Name: D10_N10D_Nominal_Rnwy_v8_Q780
40º On-station Time: 1620 UTC / 1030 L

Flyority 2
Collection Area: NEON HQ Lidar Validation
Flight Plan Name: D10_H10D_HQ_LIDAR_Validation_v2_PRM
On-Station Time: Daylight – No solar angle restrictions.

Flyority 3
Collection Area: Wiggle Timing Test
Flight Plan Name: D10_W10D_Wiggle_Test_v7_PRM
40^{o} On-station Time: 1630 UTC / 1030 L
Additional Considerations: Runway should not be wet or snow covered.

Flyority 4
Collection Area: NIS Offset Flight
Flight Plan Name: D10_O10C_NIS_Offset_v3_PRM
35^{o} On-station Time: 1600 UTC / 1000 L

Flight Crew
Matt (Lidar), Nick (NIS)