



Payload 3 Daily Flight Report



Date: 2022-04-18

Flight Campaign ID: P3C1

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

Aircraft: N70AR

Domain: 00 (Training & Calibration)

Sites Flown: W10C (Wiggle Timing Test), R10C (Radiometric Calibration), O10B (NIS Offset Flight), H10C (NEON Headquarters Lidar Test - Riegl)

Days left in Domain: 7

Report Author: Elissa

Lidar Operators: Elissa, Mitch, Cameron

Spectrometer Operators: Cameron, Mitch, Abe

Pilots: Magnus, Nick

Adt'l Flight Crew: Cameron, Mitch

Flight Hours: 03:20

Hours until maintenance: 115.55

GPS Instruments: AOP_KBDU

Ground Crew: Elissa, Mike

Summary

The Payload 3 crew started the day at KBJC, departing in very clear sky conditions to fly calibration flight plans W10C and R10C (in coordination with a ground team on Table Mountain). Upon landing at KBDU, the crew was able to test the ground power system, which was serviced this morning. Power now appears to be stable, allowing the plane to relocate back to KBDU. Two more calibration flights were then conducted, O10B and H10C.

Concerns

None.

Comments

Calibration flights doubled as training flights today:

- Elissa recertified on LiDAR
- Cam recertified on LiDAR
- Cam recertified on NIS
- Mitch recertified on LiDAR
- Mitch recertified on NIS
- Abe recertified on NIS
- Mike recertified on Ground

KBDU electrical is currently functional, allowing a second plane to be powered overnight on the tarmac at KBDU.

Daily Coverage

Estimated Cloud Cover Key

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

D00|W10C

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

Total number of lines flown: 2

D00|R10C

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

Total number of lines flown: 5

D00|O10B

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

Total number of lines flown: 2

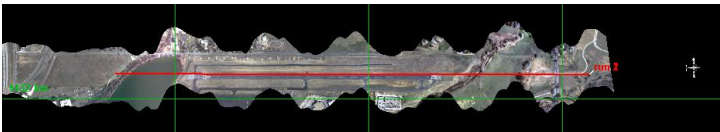
D00|H10C

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

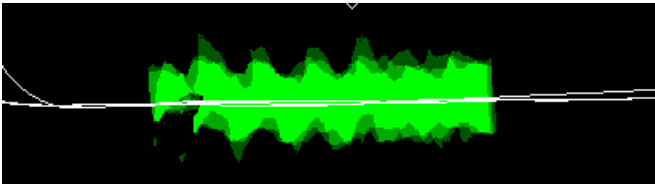
Total number of lines flown: 4

Flight Screenshots

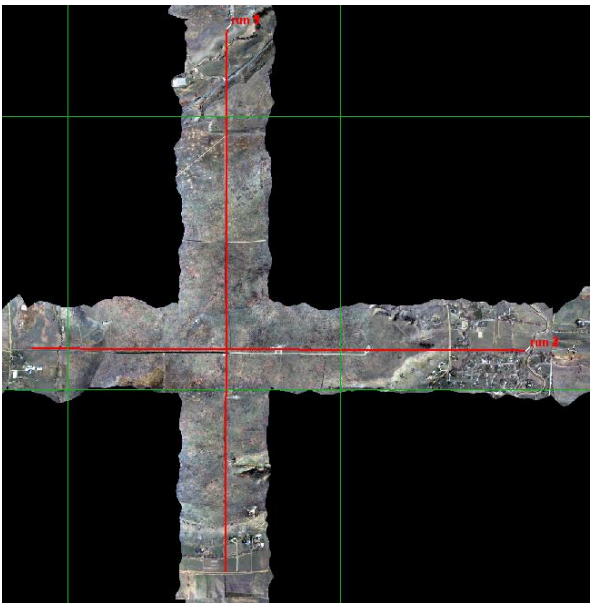
W10C – NIS



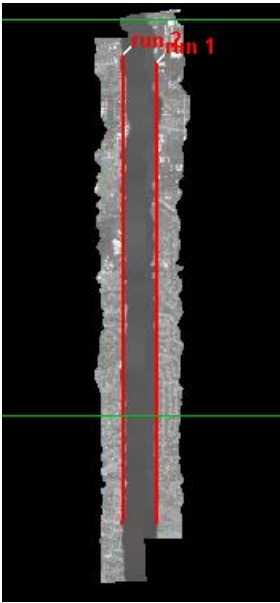
W10C – LiDAR



R10C – NIS



O10B – NIS



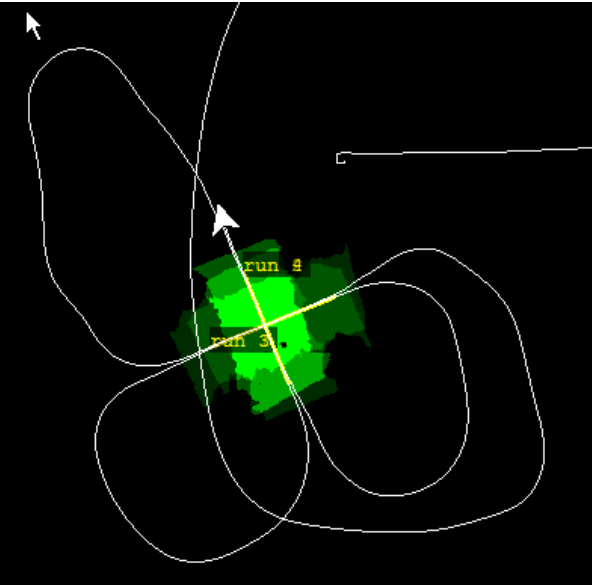
O10B – LiDAR



H10C – NIS



H10C – LiDAR



Pictures



Flying over the spectral calibration tarps at Table Mountain (photo by Cam).



Changing out Ultrapol patches on the spectrometer lens for the NIS Offset flight (photo by Abe).

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: 0% (0/20)

Yellow: 0% (0/20)

Red: 100% (20/20)

D00|H10C (NEON Headquarters Lidar Test - Riegl)

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|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: 11% (3/28)

Red: 75% (21/28)

D00|O10B (NIS Offset - Riegl)

1	2
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Flown: 100% (2/2)

Green: 100% (2/2)

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: 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: 0% (0/29)

Green: 0% (0/29)

Yellow: 0% (0/29)

Red: 0% (0/29)

D00|W10C (Wiggle Timing Test - Riegl)

1	2
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Flown: 100% (2/2)

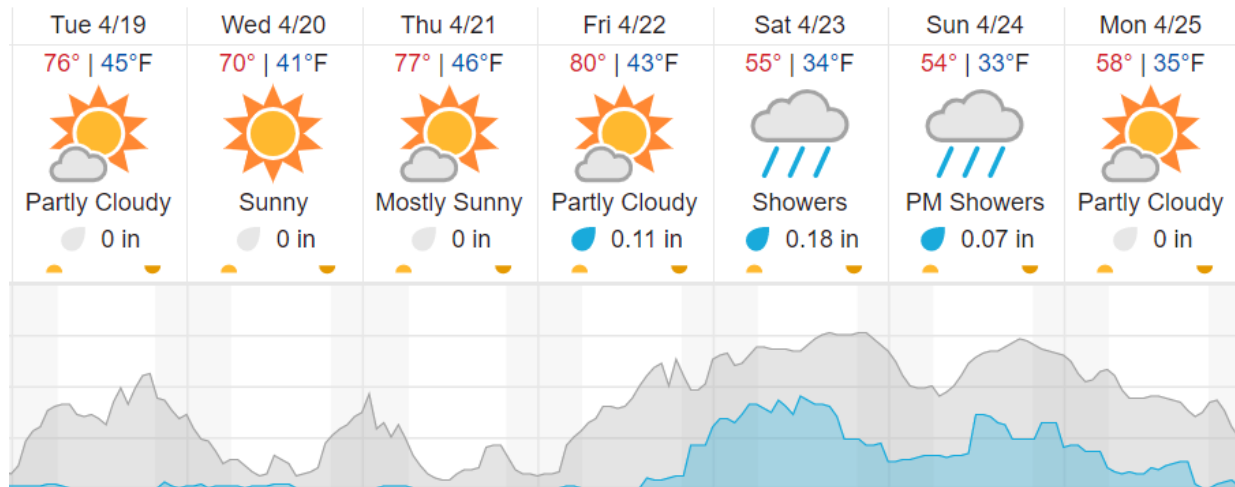
Green: 100% (2/2)

Yellow: 0% (0/2)

Red: 0% (0/2)

Weather Forecast

Boulder, CO (KBDU)



source: wunderground.com

Flight Collection Plan for April 2022

Collection Area: Boulder City Nominal

Flight Plan Name: D10_V10C_East_v7_Q780/D10_V10C_West_v7_Q780

On-station Time: Daylight – No solar angle restrictions

Flight Crew: Mike (LiDAR), Nick (NIS), John (Trainer), Matt (Ground)