



Payload 1 Daily Flight Report



Date: 2022-04-19

Flight Campaign ID: P1C1

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

Aircraft: N331AR

Domain: 00 (Training & Calibration)

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

Days left in Domain: 13

Report Author: Mitch

Lidar Operators: Mitch, Cameron

Spectrometer Operators: Matt, Abe

Pilots: Justin, Stephen

Ground Crew: Abe, Nick

Flight Hours: 01:05 + 00:30

Hours until maintenance: 122.22

GPS Instruments: AOP_KBDU

Summary

First day of flights for Payload 1. Two flights were conducted. First flight served as a the functional check flight, flying the Wiggle and Lidar HQ. With increased winds in the afternoon, the second flight served primarily as a recertification flight using the nominal runway flight plan.

Concerns

QA for this morning's Cal Flight (2022041914) failed after extraction.

Comments

Mitch and Cam were both recertified on the Galaxy system.

Matt was recertified on the NIS.

Elissa was certified as a certifier.

Daily Coverage

Estimated Cloud Cover Key

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

D00|H10D

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

Total number of lines flown: 4

D00|W10D

Line #	1	2
Lidar	✓	✓

Spectrometer	✓	✓
Camera	✓	✓
Cloud Cover		

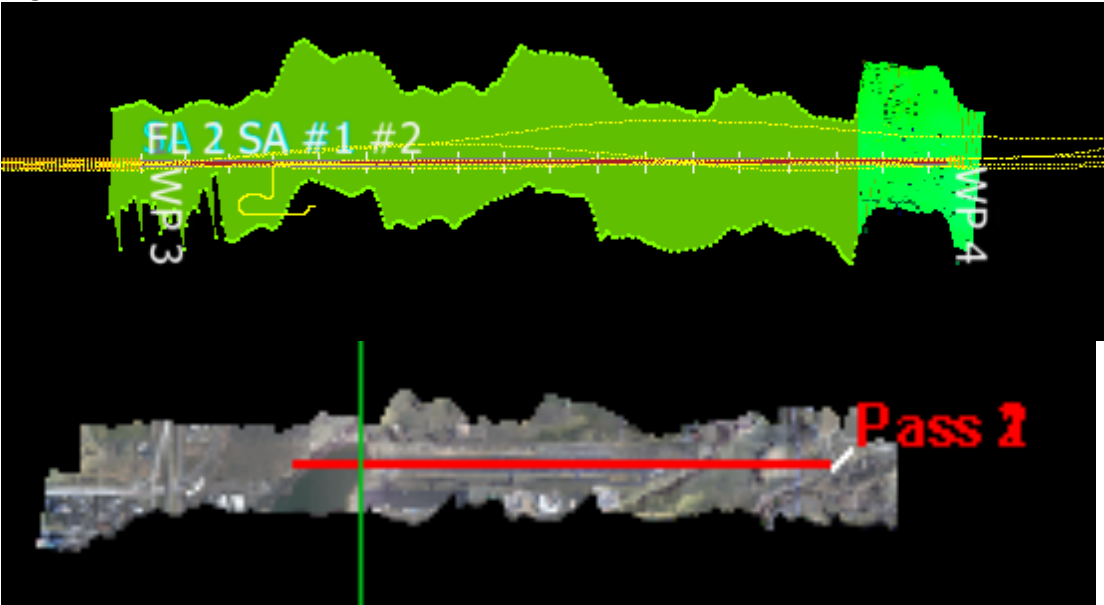
Total number of lines flown: 2

D00|N10F

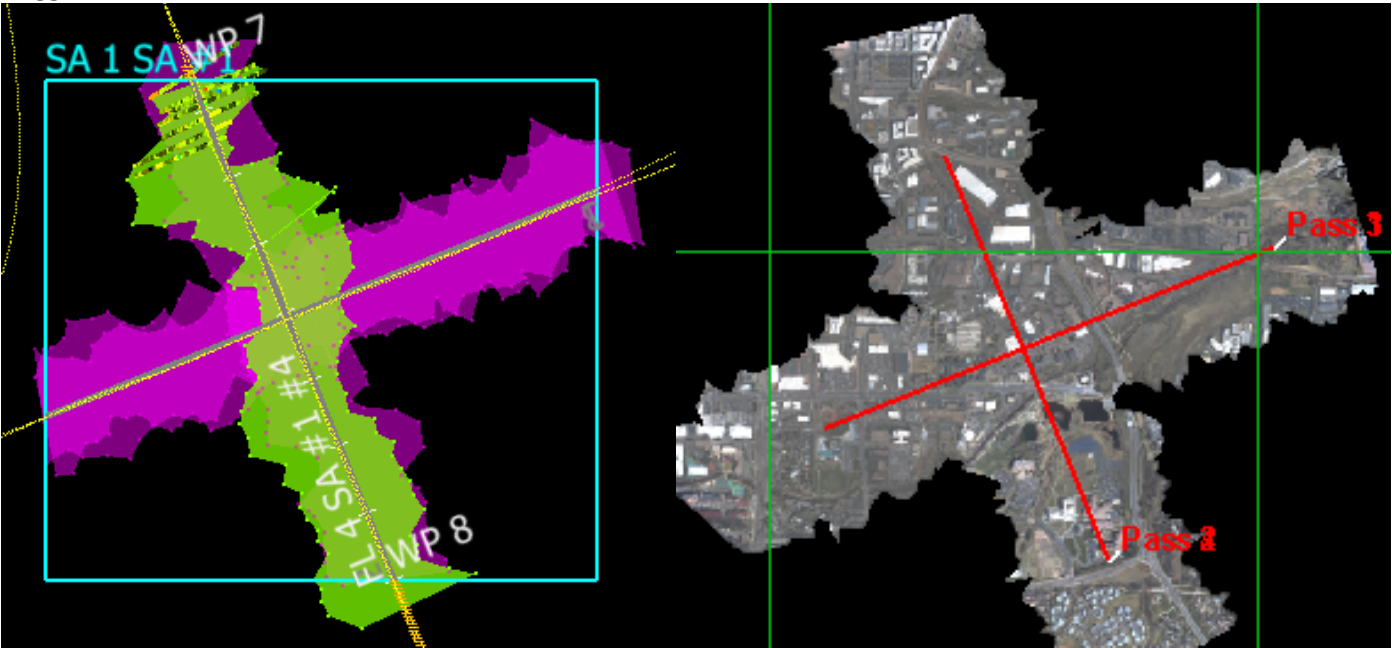
Line #	21	22	23
Lidar	✓	✓	✓
Spectrometer	✓	✓	✓
Camera	✓	✓	✓
Cloud Cover			

Total number of lines flown: 3

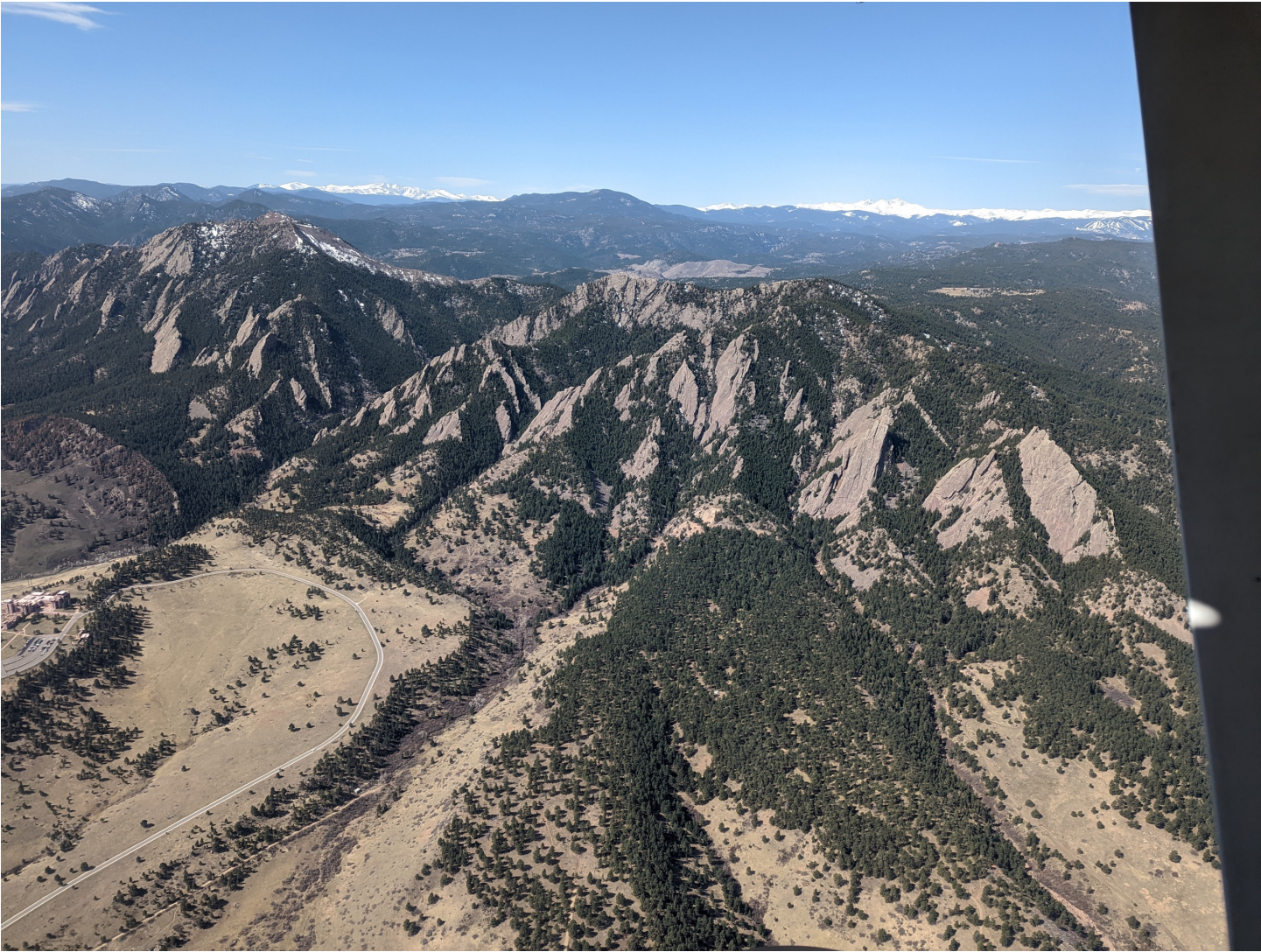
Flight Screenshots



Wiggle above, Lidar HQ below



Pictures



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|BLKF (Black Forest Waveform Range Test - Galaxy)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21																			

Flown: 0% (0/21)
Green: 0% (0/21)
Yellow: 0% (0/21)
Red: 0% (0/21)

D00|D10C ()

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

D00|H10D (NEON Headquarters Lidar Validation - Galaxy)

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|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: 8% (3/37)
Green: 0% (0/37)
Yellow: 0% (0/37)
Red: 8% (3/37)

D00|O10C (NIS Offset - Galaxy)

1	2
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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
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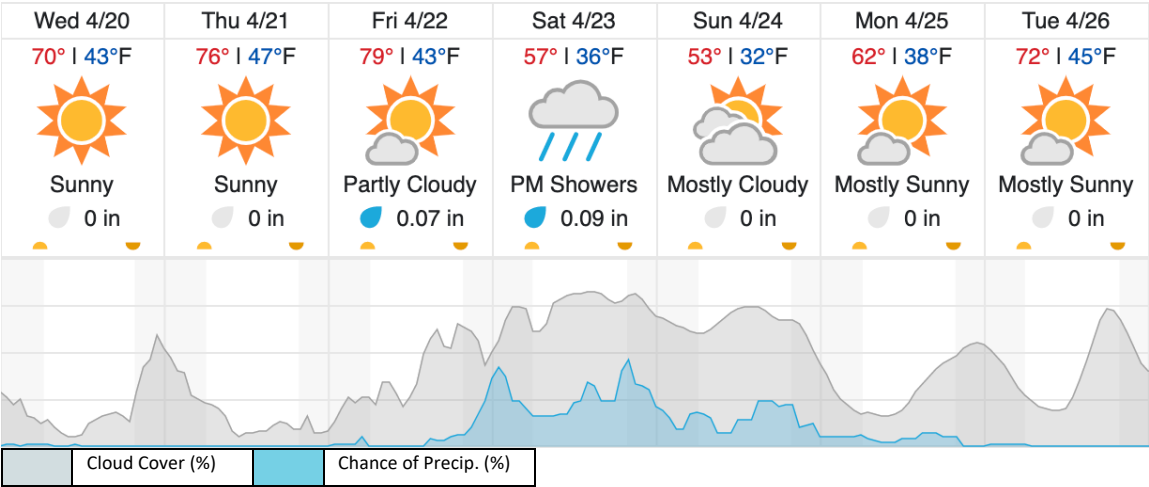
Flown: 0% (0/5)
Green: 0% (0/5)
Yellow: 0% (0/5)
Red: 0% (0/5)

D00|W10D (Wiggle Timing Test - Galaxy)

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

Weather Forecast



source: wunderground.com

Flight Collection Plan for 20 April 2022

Flyority 1

Collection Area: Table Mountain Radiometric Calibration

Flight Plan Name: D10_R10E_Radiometric_Cal_Table_Mtn_v1_PRM.xml

45° On-station Time: 1630 UTC / 1030 L

40° On-station Time: 1600 UTC / 1000 L

Additional Considerations: Ground should be dry.

Flyority 2

Collection Area: Boresight Calibration – Greeley, CO

Flight Plan Name: D10_B10F_Boresight_Geocal_v9_PRM.xml

30° On-station Time: 1500 UTC / 0900 L

Additional Considerations: No recent snowfall, clear roofs required.

Flyority 3

Collection Area: Nominal Runway Survey Flight Plan

Name: D10_N10F_Nominal_Rnwy_v10_PRM.xml

On-Station Time: Daylight – No solar angle restrictions.

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

Flyority 4

Collection Area: NIS Offset Flight

Flight Plan Name: D10_O10C_NIS_Offset_v2_PRM.xml

35° On-station Time: 1530 UTC / 0930 L

Flight Crew:

1st Flight: Abe (Lidar), John (NIS), Cam (Trainer), Matt (Ground)

2nd Flight (If conditions allow): Matt (Lidar), Mike (NIS), Abe (Trainer), Cam/Mitch (Ground)