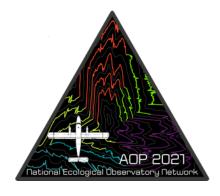


# Payload 1 Daily Flight Report



Date: 2021-04-23

Flight Campaign ID: P1C2

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

Aircraft: N331AR

**Domain**: 00 (Training & Calibration)

Sites Flown: N10F (Nominal Runway at KBDU - Galaxy)

**Days left in Domain**: 6

Report Author: Michael Wussow

**Lidar Operators**: Michael Wussow **Flight Hours**: 02:25

**Spectrometer Operators**: Nick Marusich **Hours until maintenance**: 101.92 **Pilots**: Justin Eddington, Will Mathews **GPS Instruments**: AOP\_KBDU

**Ground Crew**: Mitch Haynes

## Summary

The Payload 1 Crew was finally able to catch a small break in the weather and the Nominal Runway calibration flight was completed just as verga started developing. This leaves only the NIS-Offset calibration flight left, which requires better than 50% cloud cover and no cumulus shadows.

#### **Comments**

- -lan swapped out the loaner waveform digitizer with the permanent one before today's flight. It functioned without issue.
- Ivana is giving a virtual tour of the plane and payload to the Fairview High School Aerospace Club this afternoon. Way to go Ivana!
- -Tomorrow will be a no-fly day.
- -P1C2 RAID 01 is not to be shipped until Andrew can resolve a checksum issue on the RAID.

#### Concerns

The orientation of ports on the new digitizer have caused the connecting cable to be very taught. It is requested that extreme care be taken not to strain the already taught cable. A potential solution is for AOP Lab to unwind sections of bundled cable relieve strain. Action on this is TBD.

### **Daily Coverage**

**Estimated Cloud Cover Key** 

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

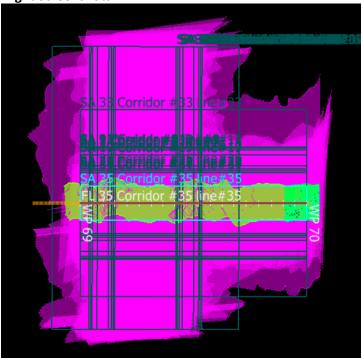
#### D00|N10F

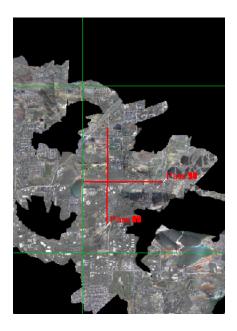
Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	<b>√</b>	✓	✓	<b>√</b>	✓	<b>\</b>	<b>√</b>	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	<b>√</b>	✓	✓	<b>√</b>	✓	<b>\</b>	<b>√</b>	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	<b>√</b>	✓	✓	<b>√</b>	✓	<b>\</b>	<b>√</b>	✓	✓	✓	✓	✓
Cloud Cover																				

Line #	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Lidar	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>\</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>\</b>	<b>✓</b>	<	<b>\</b>	<b>✓</b>	<b>✓</b>	<	<b>✓</b>	<b>✓</b>
Spectrometer	✓	✓	✓	<b>\</b>	✓	✓	✓	✓	✓	✓	<b>\</b>	✓	✓	✓	<b>\</b>	✓	<b>✓</b>
Camera	✓	✓	✓	<b>\</b>	✓	✓	✓	✓	✓	✓	<b>\</b>	✓	✓	✓	<b>\</b>	✓	<b>✓</b>
Cloud Cover																	

Total number of lines flown: 37

Flight Screenshots





#### **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	Door basis (complete diceley															1300111, 1000111, 330111						
		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: 100% (20/20) 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: 100% (21/21) Green: 0% (0/21) Yellow: 100% (21/21) Red: 0% (0/21)

## D00 | H10D (NEON Headquarters Lidar Validation - Galaxy)

1 2 3 4 Flown: 100% (4/4)

Green: 100% (4/4) Yellow: 0% (0/4) Red: 0% (0/4)

D00 | N10F (Nominal Runway at KBDU - Galaxy)

		1							-11										
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					

Flown: 100% (35/35) Green: 0% (0/35) Yellow: 0% (0/35) Red: 100% (35/35)

## 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 V10F (Boulder City Nominal - Galaxy)

001	V ± 0 i	1000	aiaci	City	101111	iiai	Gaia	` ' ' ' '											
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: 38% (11/29) Green: 14% (4/29) Yellow: 0% (0/29) Red: 24% (7/29)

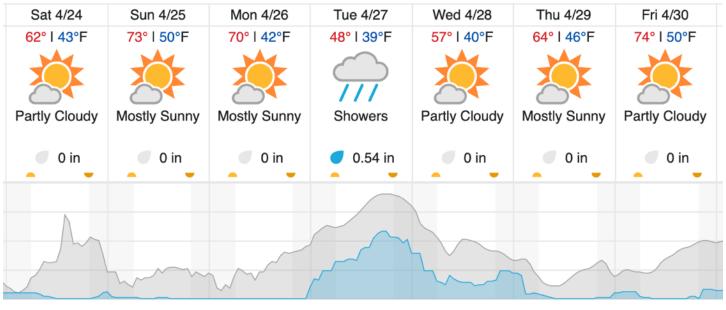
# D00 | W10D (Wiggle Timing Test - Galaxy)



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

# Weather Forecast

# **Boulder**, CO



Cloud Cover (%)
source: wunderground.com

# Flight Collection Plan for April 24 2021

No-Fly Day

## Flight Collection Plan for April 25 2021

Flyority 1

Collection Area: NIS Offset Flight

Flight Plan Name: D10\_O10C\_NIS\_Offset\_v2\_PRM.xml

Chance of Precip. (%)

On-station Time: 1600 UTC / 1000 L

Crew: Mitch (Lidar), Elissa (NIS), Nick (Ground)