

### Payload 1 Daily Flight Report



Date: 2023-03-24

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)

Days left in Domain: 6

Report Author: Cameron

**Spectrometer Operators**: Elissa **Hours until maintenance**: 120.52 **Pilots**: Justin, Vince **GPS Instruments**: AOP\_KBDU

Ground Crew: Mitch, Matt

#### Summary

The crew completed the Nominal Runway flight plan under mixed cloud conditions. This flight also served as a recertification flight for Elissa on the NIS and Cameron on the Lidar.

#### **Concerns**

The camera computer lost connection with the VNC several times during flight.

- Random eye safe shutoff at the high PRF setting.

# **Comments**

- Mitch, Elissa and Cameron are now certified on the NIS, P1 Lidar and Ground.

#### **Daily Coverage**

# **Estimated Cloud Cover Key**

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

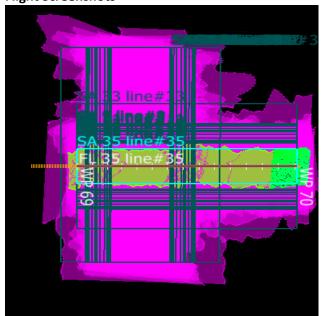
### D00|N10F

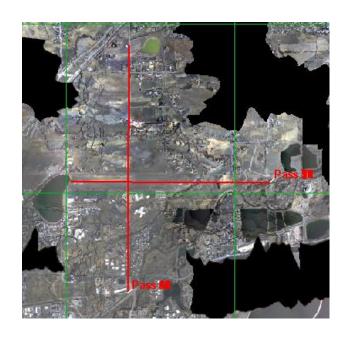
Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lidar	<b>√</b>	✓	<b>✓</b>	✓	✓	✓	<b>√</b>	<b>√</b>	✓	✓	✓	✓	✓	✓	<b>✓</b>	✓	✓	✓	✓	✓
Spectrometer	<b>√</b>	✓	<b>✓</b>	✓	✓	✓	<b>√</b>	<b>√</b>	✓	✓	✓	✓	✓	✓	<b>✓</b>	✓	✓	✓	✓	✓
Camera	<b>√</b>	✓	<b>✓</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	✓	✓	✓	✓	✓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

Total number of lines flown: 37

Flight Screenshots





# **Pictures**



A view over Boulder during the Nominal Runway Flight.

# **Cumulative Domain Coverage**

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

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

Flown: 90% (18/20) Green: 0% (0/20) Yellow: 75% (15/20) Red: 15% (3/20)

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

# 1 2 3 4

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

# 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: 14% (5/37) Yellow: 86% (32/37) 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	3 4	5
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Flown: 0% (0/5) Green: 0% (0/5) Yellow: 0% (0/5) Red: 0% (0/5)

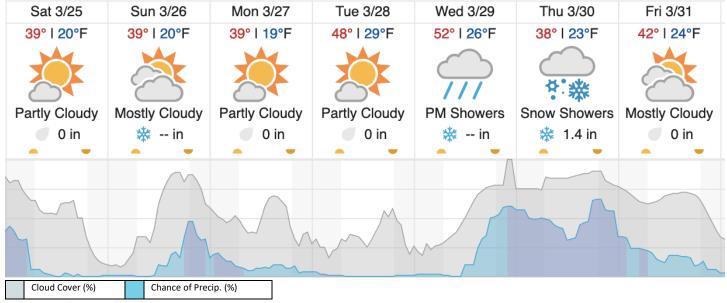
# D00 | W10D (Wiggle Timing Test - Galaxy)

# 1 2

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

#### **Weather Forecast**

Boulder, CO



source: wunderground.com

# Flight Collection Plan for 25 March 2023

# Flyority 1

Collection Area: Table Mountain Radiometric Calibration

Flight Plan Name: D10\_R10E\_Radiometric\_Cal\_Table\_Mtn\_v1\_PRM.xml

45° On-station Time: 1740 UTC / 1140 L

Additional Considerations: Ground should be dry.

### Flyority 2

Collection Area: NIS Offset Flight

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

35° On-station Time: 1620 UTC / 1030 L

# **Flight Crew**

Elissa (Lidar), Mitch (NIS), Cam (Ground)