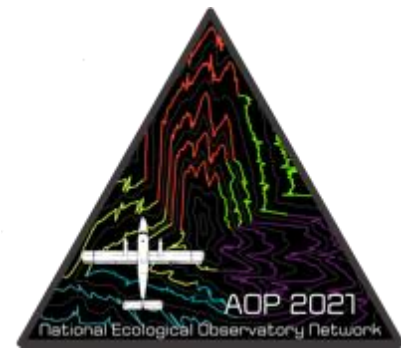




Payload 1 Daily Flight Report



**Date:** 2021-10-11  
**Flight Campaign ID:** P1C2  
**Airport, FBO ID, City:** Boulder Municipal Airport (KBDU) - Boulder, CO  
**Aircraft:** N331AR

**Domain:** 00 (Calibration)  
**Sites Flown:** N10F, R10E  
**Days left in Domain:** 07

**Report Author:** Abe Morrison  
**Lidar Operators:** Abe Morrison  
**Spectrometer Operator:** Elissa Barris  
**Ground Crew:** Mitch Haynes  
**Pilots:** Justin Eddington, Stephen Brawders

**Flight Hours:** 03:36  
**Hours until maintenance:** 5.27  
**GPS Instruments:** AOP-KBDU

**Summary**

Clear skies early this morning allowed the crew to start the nominal runway flight plan while waiting for solar angle for the radiometric calibration flight plan. Just after 35deg solar angle, the radiometric flight plan was flown 2 times in a row in "green" sky conditions. The nominal runway plan was then finished during the same flight.

**Concerns**

- The getter ION pump had several issues on the flight today in conjunction with a slight change in chamber pressure. The chamber never went out of specification and the issues seems to have been resolved with a power cycle. HQ lab staff is aware of the issue.
- The database would not generate the daily report today.

**Comments**

- The radiometric calibration flight and the nominal runway flight were finished today.
- Mechanics from Twin Otter arrived this afternoon and began the 125hr inspections. This maintenance process should conclude sometime tomorrow.

**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: 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
---	---

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
---	---	---	---

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					

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

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

D00|R10F (Boulder Airport Radiometric Calibration - Galaxy)

1	2	3	4	5
---	---	---	---	---

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

# D00|W10D (Wiggle Timing Test - Galaxy)

1 2

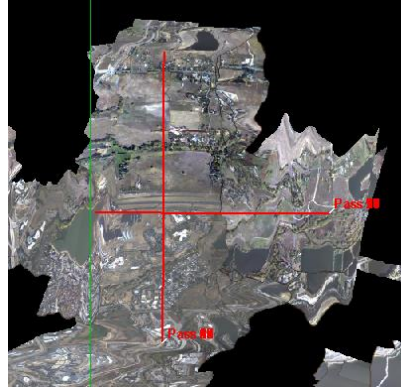
Flown: 0% (0/2)  
Green: 0% (0/2)  
Yellow: 0% (0/2)  
Red: 0% (0/2)

## Screenshots

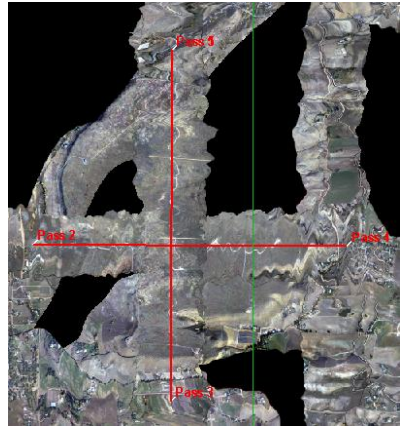
Lidar

NIS

N10F



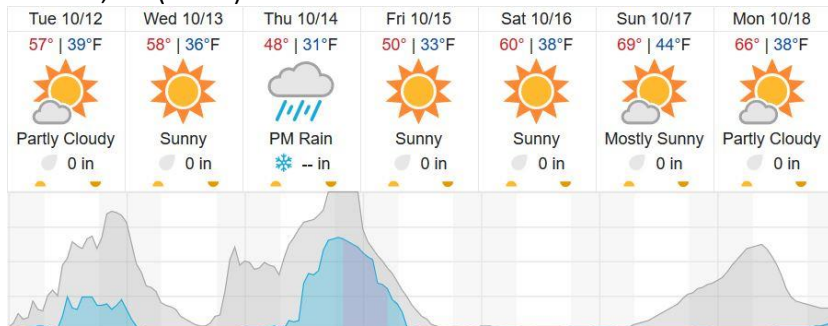
R10E



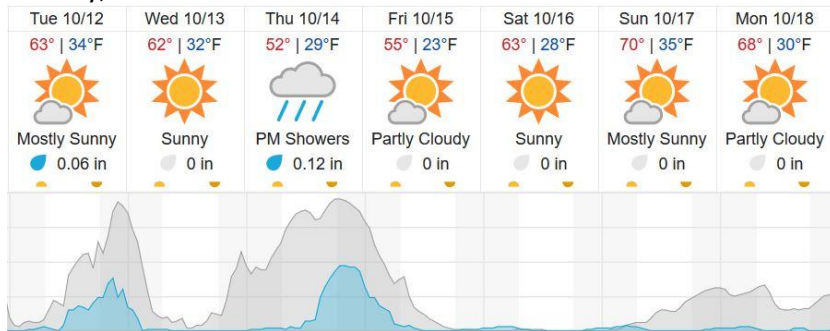
Lidar not collected in this plan

## Weather Forecast

Boulder, CO (KBDU)



## Greeley, CO



Cloud Cover (%)	Chance of Precip. (%)
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source: wunderground.com

### Flight Collection Plan for 12 October 2021

#### Flyority 1

**Collection Area:** Boresight Calibration – Greeley, CO

Flight Plan Name: D10\_B10F\_Boresight\_Geocal\_v8\_PRM

On-station Time: 16:10 UTC / 10:10 L

#### Flyority 2

**Collection Area:** Wiggle Timing Test

Name: D10\_W10D\_Wiggle\_Test\_v5\_PRM

On-Station Time: 17:40 UTC / 11:40 L

#### Flyority 3

**Collection Area:** NEON HQ Lidar Validation

Flight Plan Name: D10\_H10D\_HQ\_Lidar\_validation\_v1\_PRM

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

#### Flyority 4

**Collection Area:** Boulder Airport Radiometric Calibration

Flight Plan Name: D10\_R10F\_Radiometric\_Cal\_KBDU\_v1\_PRM

On-Station Time: 17:40 UTC / 11:40 L

#### Flyority 5

**Collection Area:** NIS Offset Flight

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

On-Station Time: 16:50 UTC / 10:50 L

#### Flyority 6

**Collection Area:** Black Forest Waveform Range Test Flight

Flight Plan Name: D10\_BLKF\_Black\_Forest\_v4\_PRM

On-Station Time: 17:30 UTC / 11:30 L

#### Flyority 7

**Collection Area:** Boulder City Eye Safety Test

Flight Plan Name: D10\_D10C\_Boulder\_West\_Eye\_Safety\_Test\_PRM

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

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