



Payload 3 Daily Flight Report



Date: 2024-09-12  
Flight Campaign ID: P3C1  
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO  
Aircraft: N821AR

Domain: 00 (Training & Calibration)  
Sites Flown: H10C (NEON Headquarters Lidar Test - Riegl), N10D (Nominal Runway at KBDU - Riegl), W10C (Wiggle Timing Test - Riegl)  
Days left in Domain: 6

Report Author: Mitch  
Lidar Operators: Mitch                      Flight Hours: 02:06  
Spectrometer Operators: Elissa          Hours until maintenance: 44.50  
Pilots: Vince, Manning                  GPS Instruments: AOP\_KBDU

Summary  
Crew took advantage of good weather to complete three calibration flights this morning: Nominal runway, Wiggle Timing Test, and Lidar HQ.

Concerns  
None

Comments  
Conducted a tour with the Domain 10/13 staff this afternoon.

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

Line #
--------

D00|N10D

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

Line #	21	22	23	24
Lidar	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓
Camera	✓	✓	✓	✓

Cloud Cover				
-------------	--	--	--	--

Total number of lines flown: 24

D00|W10C

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

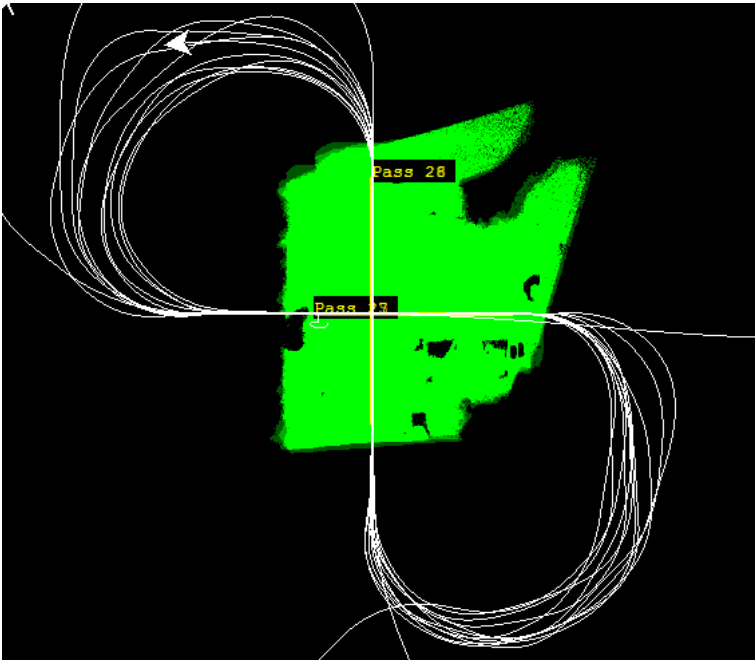
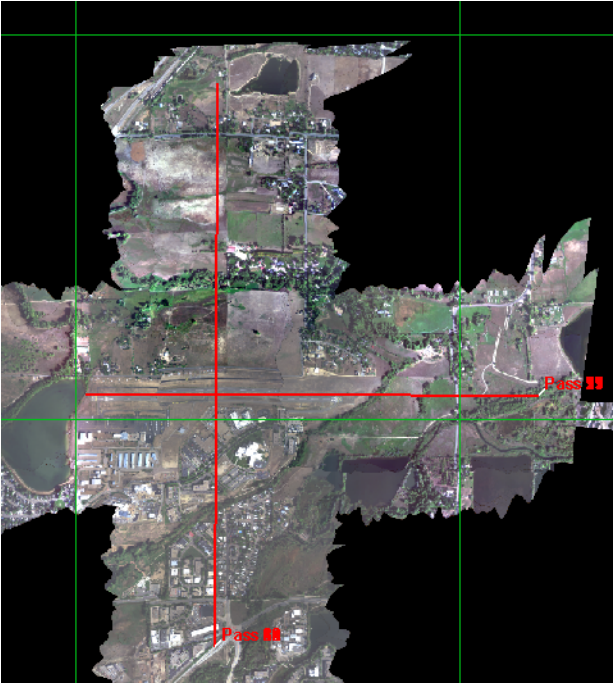
Total number of lines flown: 2

D00|H10C

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

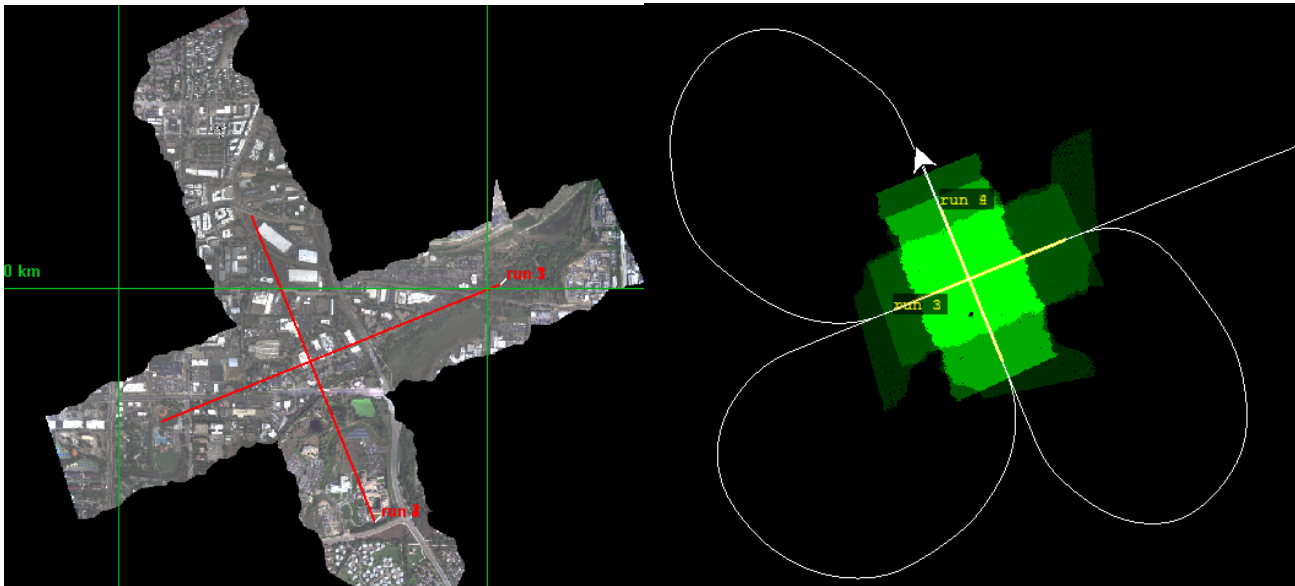
Total number of lines flown: 4

Flight Screenshots: N10D NIS on the left, N10D lidar on the right



Above left: W10C NIS on the left

Above Right: W10C Lidar on the right



**Above left:** H10C NIS

**Above right:** H10C Lidar

**Pictures:** Cloud conditions over Boulder today.





**Above:** Tour photo from the D10/13 tour this afternoon.

**Cumulative Domain Coverage**

D00|B10E (Riegl Bore sight Calibration - 1600m, 1000m, 500m)

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|H10C (NEON Headquarters Lidar Test - Riegl)

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

Flown: 100% (4/4)

Green: 0% (0/4)

Yellow: 100% (4/4)

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																

Flown: 100% (24/24)

Green: 42% (10/24)

Yellow: 58% (14/24)

Red: 0% (0/28)

D00|O10B (NIS Offset - Riegl)

1	2
---	---

Flown: 0% (0/2)

Green: 0% (0/2)

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

D00|R10C (Table Mountain Radiometric Calibration - Riegl)

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

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

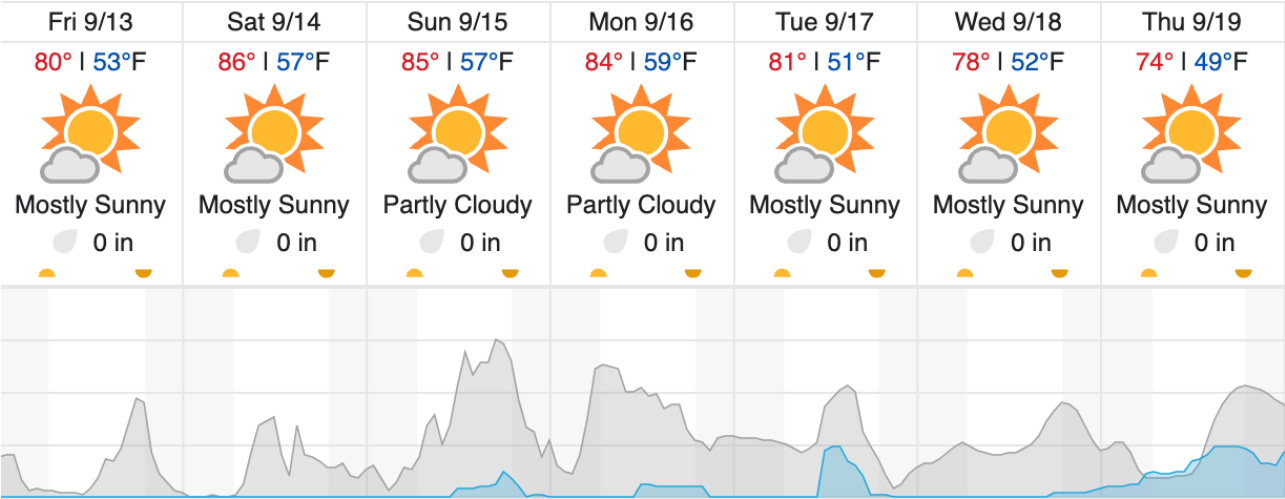
D00|W10C (Wiggle Timing Test - Riegl)

1	2
---	---

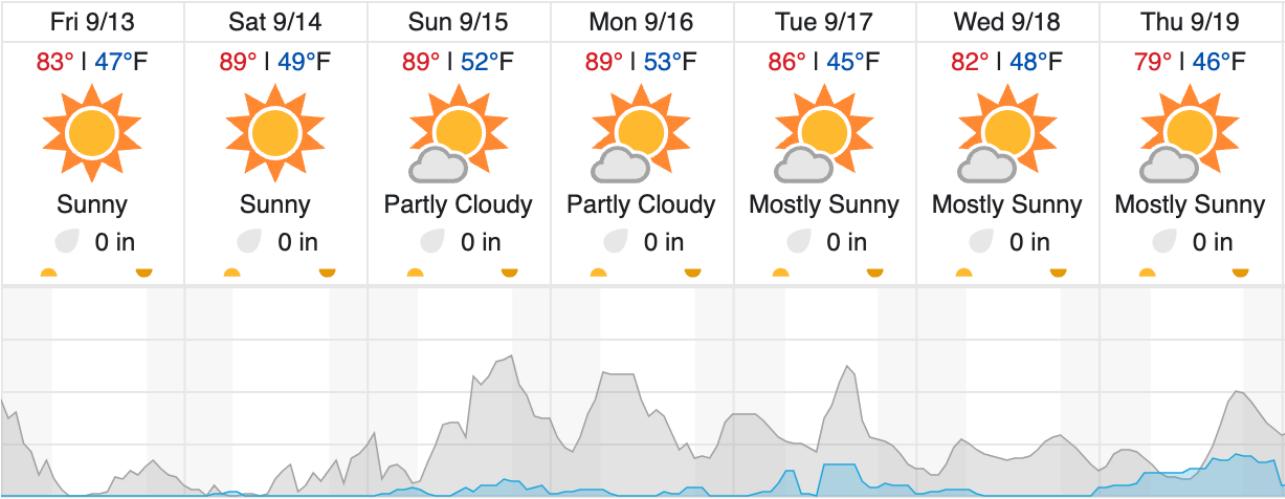
Flown: 100% (2/2)  
Green: 0% (0/2)  
Yellow: 100% (2/2)  
Red: 0% (0/2)

Weather Forecast

Boulder, CO (KBDU)



Greeley, CO (B10E)



Cloud Cover (%)	Chance of Precip. (%)
-----------------	-----------------------

source: wunderground.com

## **Flight Collection Plan for 13 September 2024**

### **Flyority 1**

Collection Area: Table Mountain Radiometric Calibration

Flight Plan Name: D10\_R10C\_Rad\_Cal\_TBMT\_v1\_Q780

40° On-station Time: 1630 UTC / 1030 L | 45° On-station Time: 1700 UTC / 1100 L

Additional Considerations: Ground should be dry.

### **Flyority 2**

Collection Area: Boresight Calibration – Greeley, CO

Flight Plan Name: D10\_B10E\_Boresight\_1600m\_Q780 (RiAcquire name: D10\_B10E\_Boresight\_Apx\_Q780)

30° On-station Time: 1530 UTC / 0930 L

Additional Considerations: No recent snowfall, clear roofs required.

### **Flyority 3**

Collection Area: NIS Offset Flight

Flight Plan Name: D10\_O10B\_NIS\_Offset\_v2\_Q780

35° On-station Time: 1600 UTC / 1000 L

### **Flight Crew**

Elissa (Lidar), Mitch (NIS)