



## Payload 3 Daily Flight Report



**Date:** 2024-08-01

**Flight Campaign ID:** P3C1

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

**Aircraft:** N821AR

**Domain:** 10 (Central Plains), 13 (Southern Rockies & Colorado Plateau), 15 (Great Basin)

**Sites Flown:** RMNP (Rocky Mountain National Park), WLOU (West St. Louis Creek)

**Days left in Domain:** 26

**Report Author:** Nick

**Lidar Operators:** Nick

**Flight Hours:** 03:34

**Spectrometer Operators:** Matt

**Hours until maintenance:** 104.08

**Pilots:** Vince, Manning

**GPS Instruments:** AOP\_KBDU, AOP\_NIWO, S-COWI

### Summary

The crew took advantage of favorable weather which held off smoke from the local wildfires to complete RMNP collections and collect WLOU in cloud free conditions with light smoke. Fuel again was found on the lidar and camera lenses but less quantity despite replacing the fuel cap gaskets. Different gaskets are being shipped to arrive tomorrow morning.

Lidar data from this week was found to have reduced returns was determined to require refly with lidar only. The Scientist on Duty is drafting up a list of lines that require refly. The crew is planning on a flight to NIWO and RMNP to recollect the identified lines. The crew will evaluate the status of the fuel leak and its effect on lidar data on the next flight.

### Concerns

Lidar data is not acceptable and requires refly some lines.

The fuel cap gaskets require replacement.

### Comments

None

### Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

Line #
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D10|RMNP

Line #	1	20	21	22	23	24	25	26	27	28	29	30
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover												

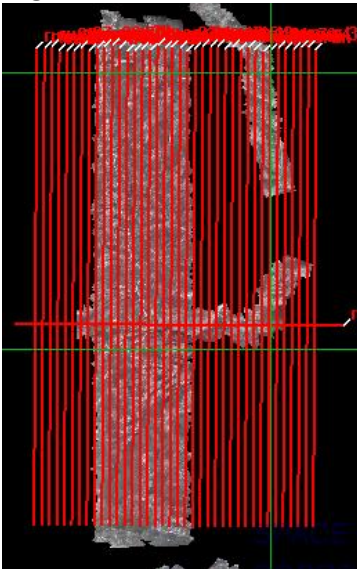
Total number of lines flown: 12

D13|WLOU

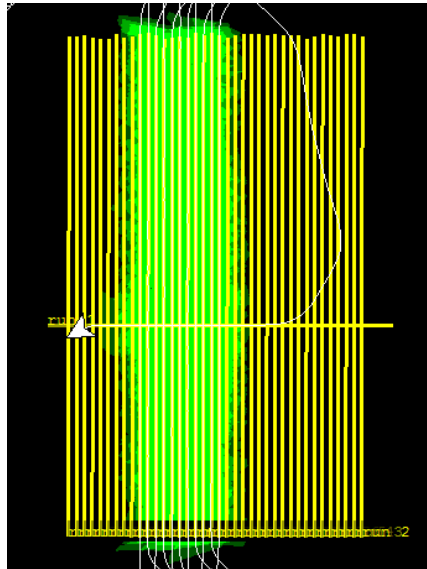
Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover														

Total number of lines flown: 14

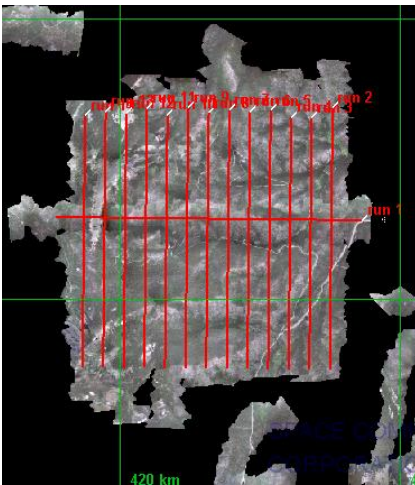
Flight Screenshots



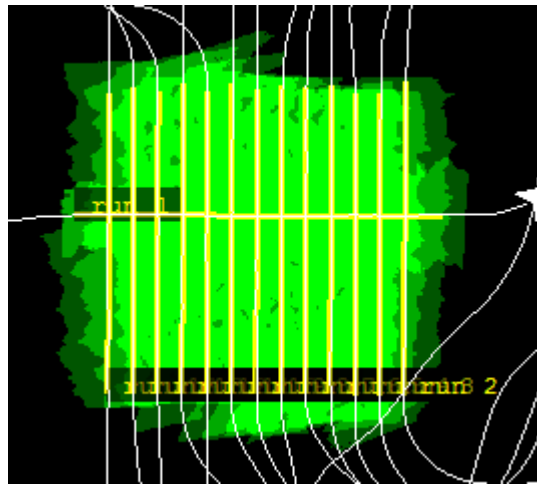
NIS screenshot RMNP



Lidar screenshot RMNP



NIS screenshot WLOU



Lidar screenshot WLOU

## Pictures

None

## Cumulative Domain Coverage

### D10|ARIK (Arikaree River)

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% (0/33)

Green: 0% (0/33)

Yellow: 0% (0/33)

Red: 0% (0/33)

### D10|RMNP (Rocky Mountain National Park)

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	38	39	40		

Flown: 97% (38/39)

Green: 97% (38/39)

Yellow: 0% (0/39)

Red: 0% (0/39)

### D10|STER (Sterling Agricultural Site)

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																

Flown: 100% (25/25)

Green: 100% (25/25)

Yellow: 0% (0/25)

Red: 0% (0/25)

### D13|NIWO (Niwot Ridge Mountain Research Station)

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	38	39	40	41
42	43	44	45	46	47	48	49	50	51	52									

Flown: 100% (51/51)

Green: 100% (51/51)

Yellow: 0% (0/51)

Red: 0% (0/51)

### D13|WLOU (West St. Louis Creek)

2	3	4	5	6	7	8	9	10	11	12	13	14
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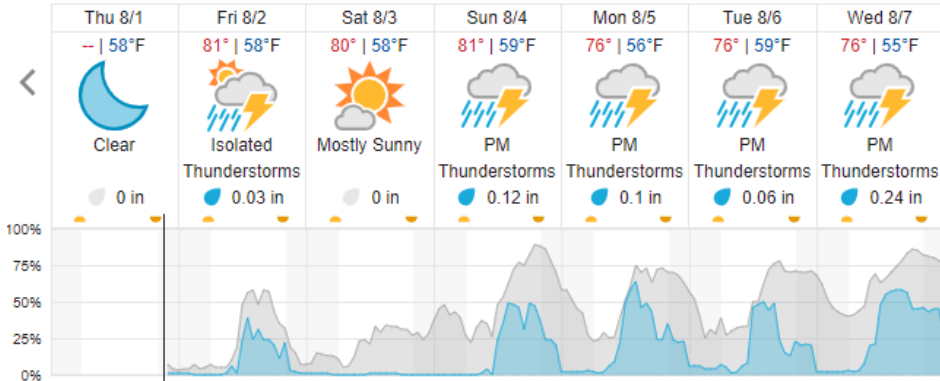
Flown: 92% (12/13)

Green: 92% (12/13)

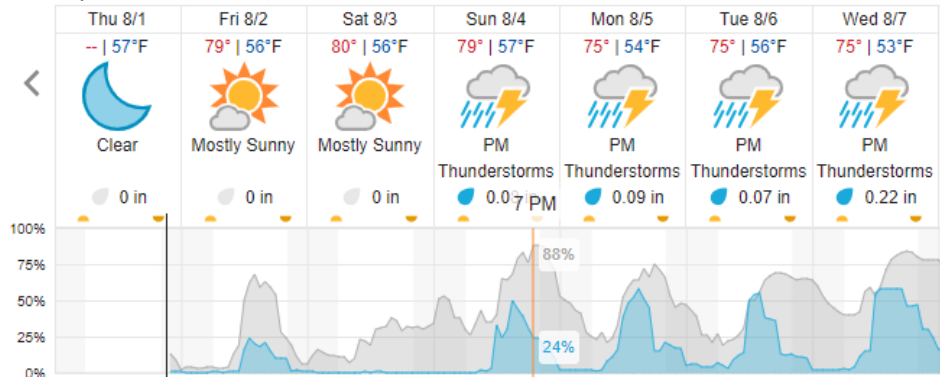
Yellow: 0% (0/13)

Red: 0% (0/13)

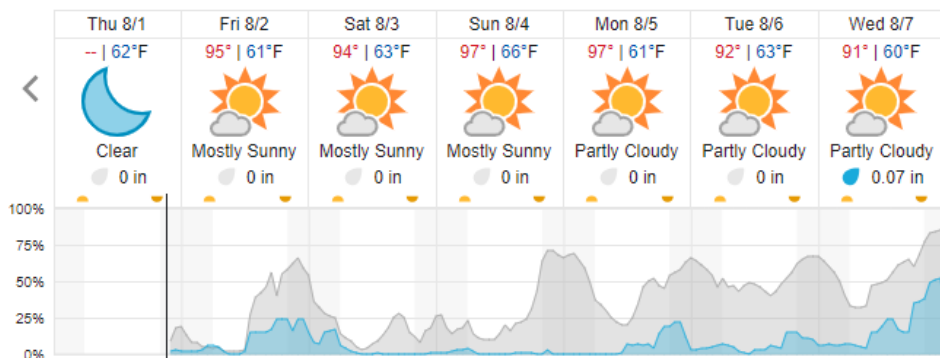
## Weather Forecast Nederland CO (NIWO)



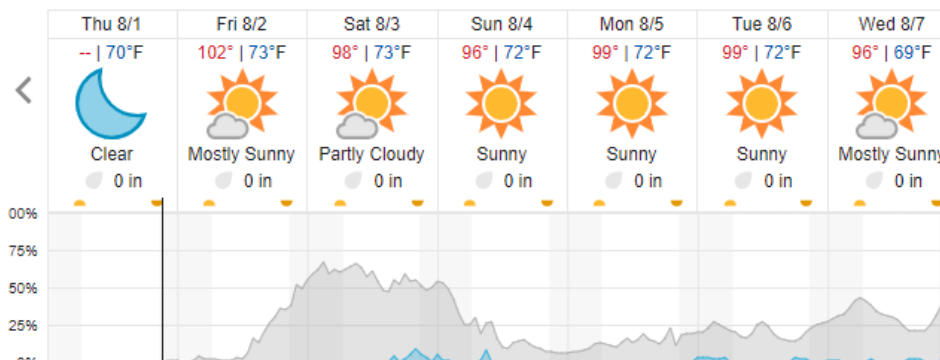
## Allenspark CO (RMNP)



## Joes CO (ARIK)



## Ogden UT (CTWD)



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

source: wunderground.com

## **Flight Collection Plan for August 2<sup>nd</sup> 2024**

### **Flyority 1**

Collection Area: Niwot Ridge Mountain Research Station

Flight Plan Name: D13\_NIWO\_C1\_P1\_v5\_Q780

On-station Time: 1540 UTC / 0940 L

### **Flyority 2**

Collection Area: Rocky Mountain National Park (RMNP)

Flight Plan Name: D10\_RMNP\_R2\_P1\_v4\_Q780

On-station Time: 1540 UTC / 0940 L

### **Flyority 3**

Collection Area: Arikaree River (ARIK) – Priority 1 & 2 Flight Box

Flight Plan Name: D10\_ARIK\_A1\_P2\_v3\_Q780

On-station Time: 1520 UTC / 0920 L

### **Flyority 4**

Collection Area: Northern Utah Priority 1 Flight Plan

Flight Plan Name: D15\_CTWD\_S1\_P1\_v1

On-station Time: 1520 UTC / 0920 L

### **Flyority 4**

Collection Area: Northern Utah Priority 2 Flight Plan

Flight Plan Name: D15\_CTWD\_S1\_P2\_v1

On-station Time: 1520 UTC / 0920 L

Crew: Matt (Lidar), Nick (NIS)