PINTE OBSERVATION

Payload 3 Daily Flight Report



Date: 2024-08-16

Flight Campaign ID: P3C1

Airport, FBO ID, City: Salt Lake City International Airport (KSLC) - Salt Lake City, UT; Grand Junction Regional Airport

(KGJT) - Grand Junction, CO; Boulder Municipal Airport (KBDU) - Boulder, CO

Aircraft: N821AR

Domain: 15 (Great Basin)

Sites Flown: CTWD P1 (NEON Research Support Services - Northern Utah Cottonwood Priority 1)

Days left in Domain: 11

Report Author: Mitch

Pilots: Vince, Manning GPS Instruments: C-MC01, C-ZLC1, U-P016, U-P088, U-RBUT

Ground Crew: Matt

Summary

The flight crew was able to collect the entire priority 1 and priority 1 Northern Utah Cottonwood NEON Research Support Services project under green conditions. Almost entire clear skies persisted for the entire flight, with some haze, but not enough to push conditions into the non-green category. Following the completion of both sets of lines, the crew transited back to Boulder, with a fuel stop in Grand Junction on the way. Big thanks to the pilots who put in a long day within a very heavy air space, lots of traffic, challenging terrain, and increasingly windy conditions.

Concerns

- Pilot display lost connection with Tracker software towards the end of the first flight. Troubleshooting in air failed to successfully reconnect the pilot display, so it was decided to land and refuel. Upon restart of the system, the pilot system reconnected and worked as expected.
- The mysterious fuel leak reared its ugly head during the second flight today, with a strong odor being present during the flight, and minimal stains visible on the camera lens. Cause is still TBD.

Comments

The second flight was conducted using a second disk set, with ground holds in KSLC and KGJT.

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

Line #

D15 CTWD_P1

<u> </u>																						
Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Lidar	√	√	√	\	\	\	/	\	√	✓	✓	^	✓	✓	✓	✓	\	\	\	^	\	✓
Spectrometer	✓	✓	✓	✓	✓	√	√	✓	✓	✓	✓	\	✓	✓	✓	✓	✓	✓	\	\	✓	✓
Camera	✓	✓	✓	\	\	\	\	\	√	>	>	\	\	√	\	√	✓	√	\	\	>	✓

Cloud Cover

Total number of lines flown: 22

D15 | CTWD_P2

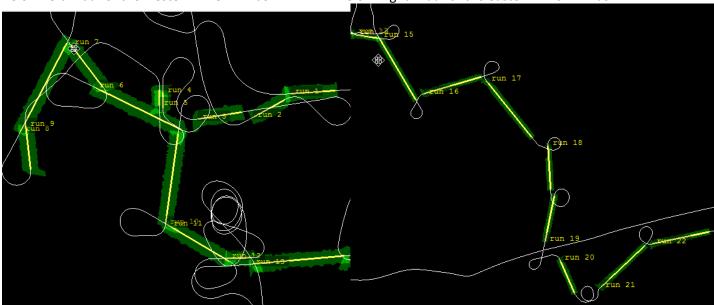
Line #	23	24	25	26	27	28	29
Lidar	✓	✓	✓	✓	✓	✓	\
Spectrometer	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓
Cloud Cover							

Total number of lines flown: 7

Flight Screenshots

Below Left: Lidar of the western P1 CTWD box.

Below Right: Lidar of the eastern P1 CTWD box.



Below Left: Lidar of the P2 CTWD box.

Below Right: NIS of the P2 CTWD box.

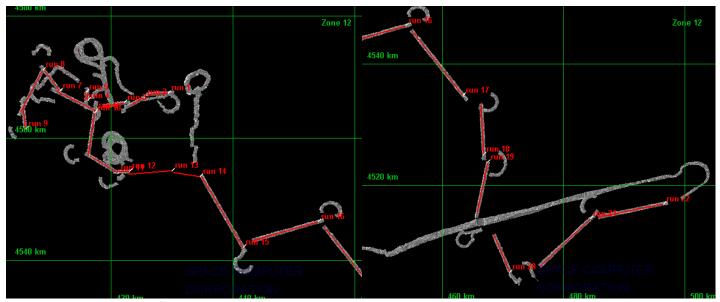
Tun 25

Tun 25

Tun 25

Tun 27

SPACE COMPUTER



Above: NIS Screenshots of the CTWD P1 flight box.

Pictures







Cumulative Domain Coverage

NEON Research Support Services:

D15 CTWD P1 (NEON Research Support Services - Northern Utah Cottonwood Priority 1)

																		11011	<u> </u>
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22																		

Flown: 100% (22/22) Green: 100% (22/22) Yellow: 0% (0/22) Red: 0% (0/22)

D15 | CTWD_P2 (NEON Research Support Services - Northern Utah Cottonwood Priority 2)

23 24 25 26 27 28 29

Flown: 100% (7/7) Green: 100% (7/7) Yellow: 0% (0/7) Red: 0% (0/7)

NEON Domain 10:

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)

		- 1		- 0 -															
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)

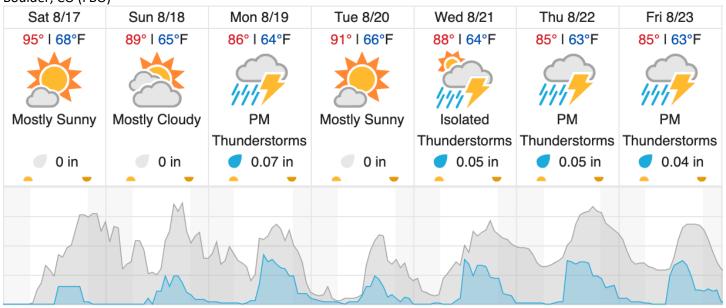
D13 | WLOU (West St. Louis Creek)

2 3 4 5 6 7 8 9 10 11 12 13 1	14
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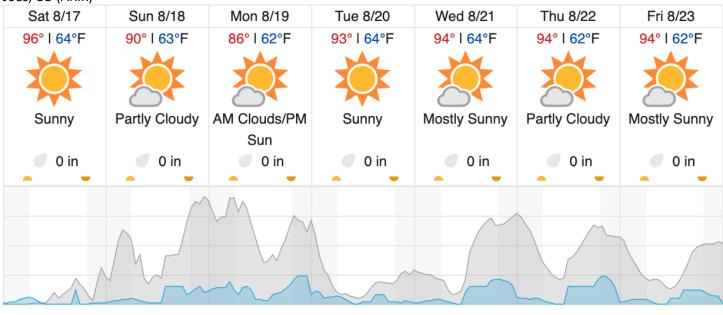
Flown: 92% (12/13) Green: 92% (12/13) Yellow: 0% (0/13) Red: 0% (0/13)

Weather Forecast

Boulder, CO (FBO)



Joes, CO (ARIK)



source: wunderground.com

Cloud Cover (%)

Flight Collection Plan for 17 August 2024

Flyority 1

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

Chance of Precip. (%)

Flight Plan Name: D10_ARIK_A1_P2_v3_Q780

On-station Time: 1520 UTC / 0920 L

Crew: Matt, Nick