



Payload 3 Daily Flight Report



Date: 2020-09-12

Flight Campaign ID: P3C1

Airport, FBO ID, City: Rocky Mountain Metropolitan Airport (KBJC) - Broomfield, CO

Domain: 00 (Training & Calibration)

Sites Flown: CPER (Satellite Overpass Coincident Collection & 1000m Multiple Altitude Test Flight - CPER), K10A (2000m Multiple Altitude Test Flight - CPER)

Days left in Domain: 4

Report Author: Cameron Chapman

Lidar Operators: Robb Walker

Flight Hours: 02:43

Spectrometer Operators: Cameron Chapman

Hours until maintenance: 18.80

Pilots: Justin Eddington, Stephen Brawders

GPS Instruments: AOP_CPER, U-P041

Ground Crew: Mitch Haynes, Bridget Hass

Summary

Mixed success today with the elusive Satellite Overpass Coincident Collection attempted this morning. Lines at 1000m were completed and had just started 2000m collection, when issues with components overheating in AXE required shutting down power to the payload. Bridget believes the data can be salvaged despite the in-air shutdown.

Concerns

Overheating issue of AXE-4 is being investigated by Ian and Chris.

Comments

-AXE-4 was removed by Ian and replaced with AXE-3 after flight. System is cooling and should be at specification temperature in a few hours.

Daily Coverage

Estimated Cloud Cover Key

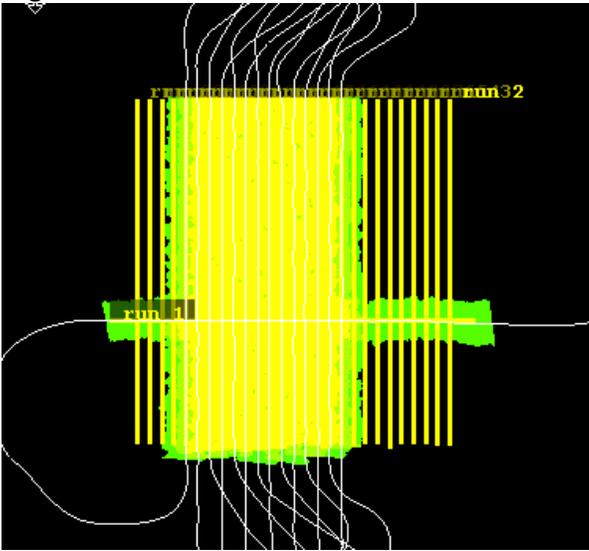
Green:	Yellow:	Red:
0-10%	11-50%	>50%

D00|CPER

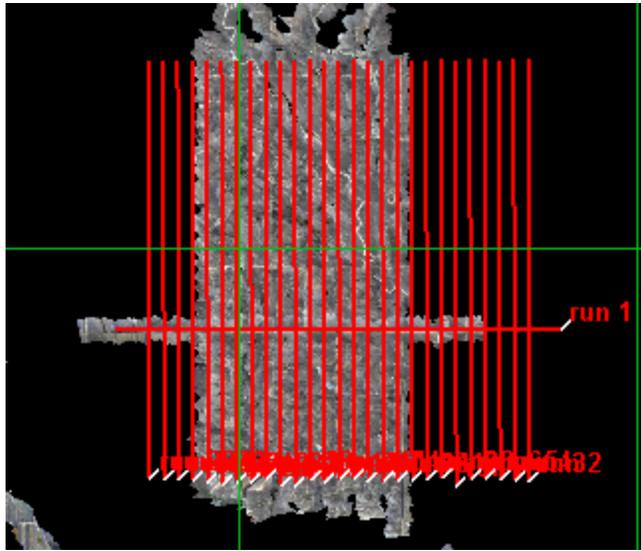
Line #	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover														

Total number of lines flown: 14

Flight Screenshots



Lidar(CPER-1000m)



NIS(CPER-1000m)

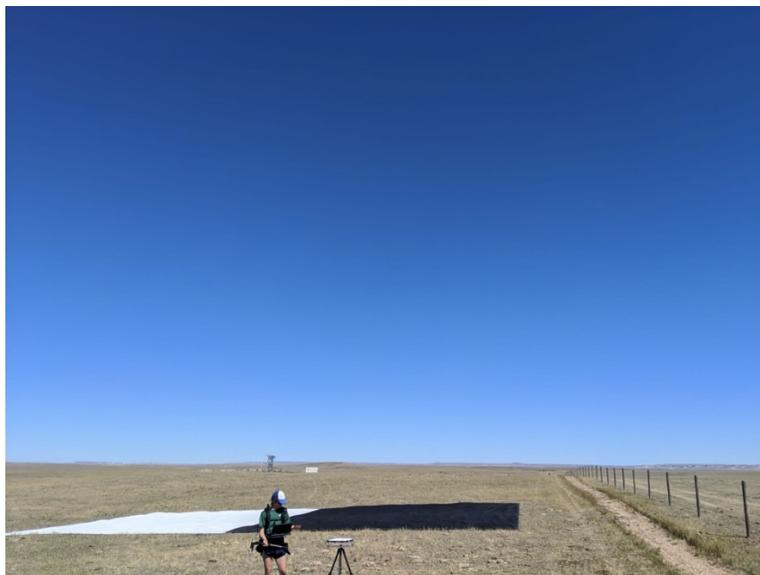
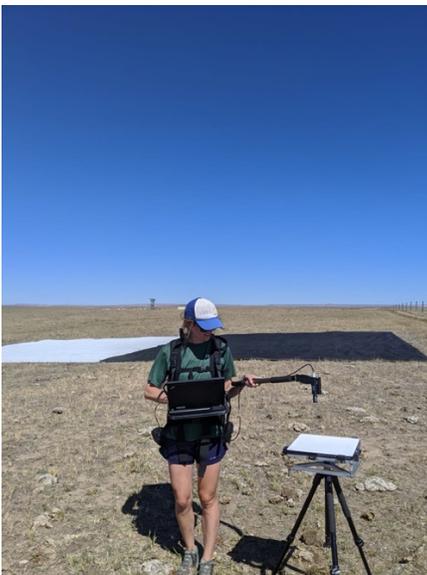
Pictures



View West from Aircraft over CPER



Calibration Tarps



Bridget Hass collecting ASD measurements under beautiful Colorado skies

Cumulative Domain Coverage

D00|B10E (Riegl Boresight 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: 100% (20/20)

Green: 70% (14/20)

Yellow: 30% (6/20)

Red: 0% (0/20)

D00|CPER (Satellite Overpass Coincident Collection & 1000m Multiple Altitude Test Flight - CPER)

11	12	13	14	15	16	17	18	19	20	21	22	23	24
----	----	----	----	----	----	----	----	----	----	----	----	----	----

Flown: 100% (14/14)

Green: 100% (14/14)

Yellow: 0% (0/14)

Red: 0% (0/14)

D00|F10A (D10 BRDF Flight - CPER)

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

Flown: 100% (20/20)

Green: 100% (20/20)

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: 0% (0/4)

Red: 100% (4/4)

D00|K10A (2000m Multiple Altitude Test Flight - CPER)

6	7	8	9	10	11
---	---	---	---	----	----

Flown: 0% (0/6)

Green: 0% (0/6)

Yellow: 0% (0/6)

Red: 0% (0/6)

D00|K10B (2000m Multiple Altitude Test Flight - RMNP)

2	3	4	5	6	7
---	---	---	---	---	---

Flown: 0% (0/6)

Green: 0% (0/6)

Yellow: 0% (0/6)

Red: 0% (0/6)

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	25	26															

Flown: 92% (24/26)

Green: 0% (0/26)

Yellow: 0% (0/26)

Red: 92% (24/26)

D00|O10B (NIS Offset - Riegl)

1	2
---	---

Flown: 100% (2/2)

Green: 100% (2/2)

Yellow: 0% (0/2)

Red: 0% (0/2)

D00|R10C (Table Mountain Radiometric Calibration - Riegl)

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

Flown: 100% (5/5)
 Green: 100% (5/5)
 Yellow: 0% (0/5)
 Red: 0% (0/5)

D00|RMNP (1000m Multiple Altitude Test Flight - RMNP)

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

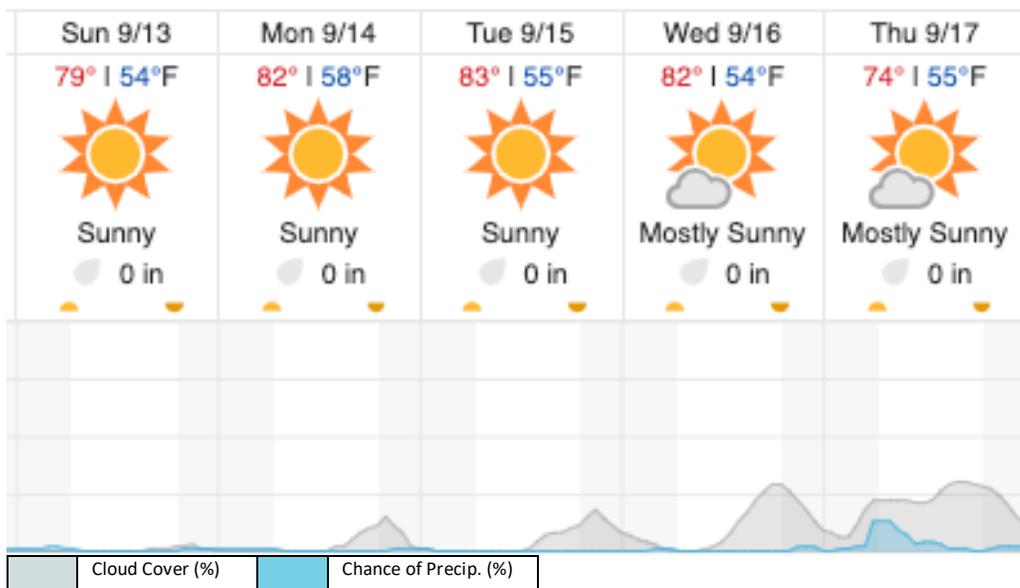
Flown: 0% (0/18)
 Green: 0% (0/18)
 Yellow: 0% (0/18)
 Red: 0% (0/18)

D00|W10C (Wiggle Timing Test - Riegl)

1	2
---	---

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

Weather Forecast



Flight Collection Plan for 13 September 2020

Flyority 1

Collection Area: Satellite Overpass Coincident Collection & 1000m Multiple Altitude Test Flight - CPER
 Flight Plan Name: D10_CPER_C1_P1_v6_Q780
 On-station Time: 1030 – 1530 Local / 1630 – 2130 UTC

Flyority 2

Collection Area: 2000m Multiple Altitude Flight - CPER
 Flight Plan Name: D10_K10A_Multiple_Alt_2000m_v1
 On-station Time: 1030 – 1530 Local / 1630 – 2130 UTC

Flyority 3

Collection Area: 1000m Multiple Altitude Test Flight - RMNP
 Flight Plan Name: D10_RMNP_R2_P1_v2_Q780
 On-station Time: 1030 – 1530 Local / 1630 – 2130 UTC

Flyority 4

Collection Area: 2000m Multiple Altitude Flight - RMNP

Flight Plan Name: D10_K10B_Multiple_Alt_v2

On-station Time: 1030 – 1530 Local / 1630 – 2130 UTC

Sunday 9/13 Crew: Cam (Lidar), Mitch (NIS), Robb (Ground/Tarps), Dave (Tarps)

Monday 9/14 Crew: Mitch (Lidar), Robb (NIS), Cam (Ground)

Tuesday 9/15 Crew: Robb (Lidar), Cam (NIS), Mitch (Ground)