



Payload 3 Daily Flight Report



Date: 2020-09-13

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: 3

Report Author: Cameron Chapman

Lidar Operators: Cameron Chapman

Spectrometer Operators: Mitch Haynes

Pilots: Stephen Brawders, Justin Eddington

Ground Crew: David Hulslander, Robb Walker

Flight Hours: 03:29

Hours until maintenance: 15.32

GPS Instruments: AOP_CPER, U-P041

Summary

The crew took advantage of favorable weather and completed the Satellite Overpass Coincident Collection & 1000m-2000m Multiple Altitude Test Flight. Both Landsat 8 and Sentinel 2A satellites were scheduled to overpass CPER today.

Concerns

- QA Data from yesterday's flight is being re-run.
- Corrupt .rpp file had to be reloaded when switching to the K10A flight plan.

Comments

- De-install of P3 is scheduled for the 17th at KBJC.

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

D00|K10A

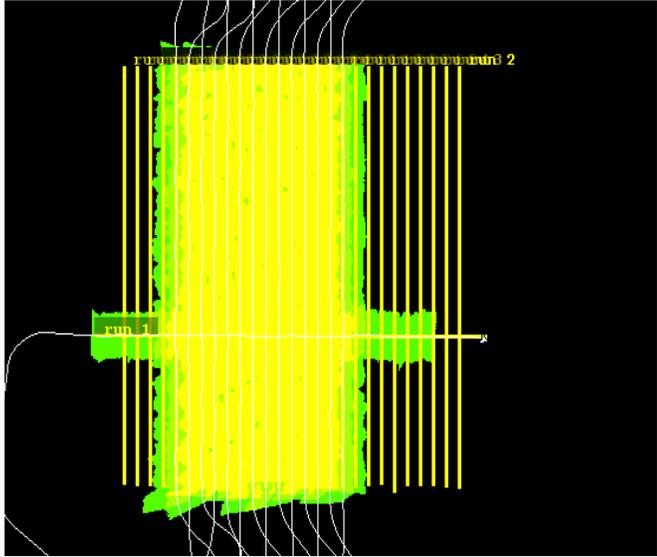
Line #	6	7	8	9	10	11
Lidar	✓	✓	✓	✓	✓	✓

Spectrometer	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓
Cloud Cover						

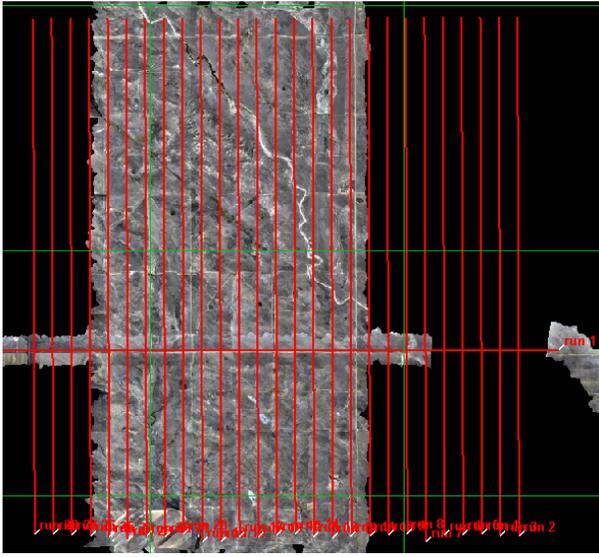
Total number of lines flown: 6

Flight Screenshots

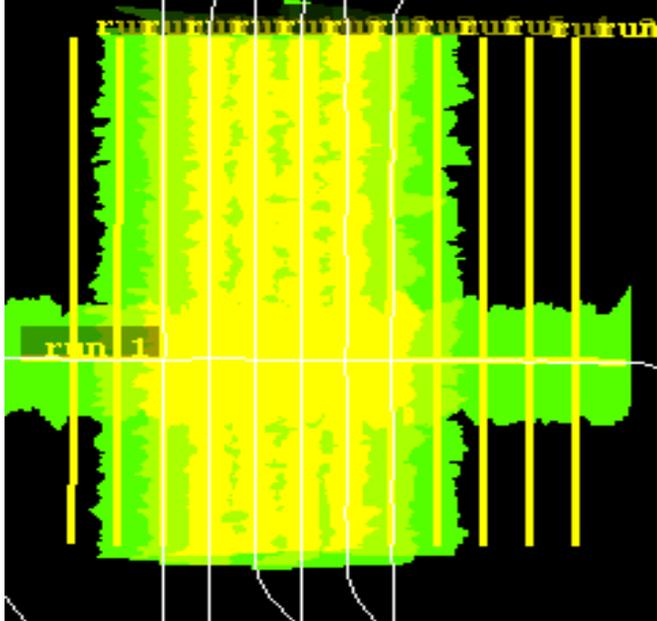
CPER Lidar



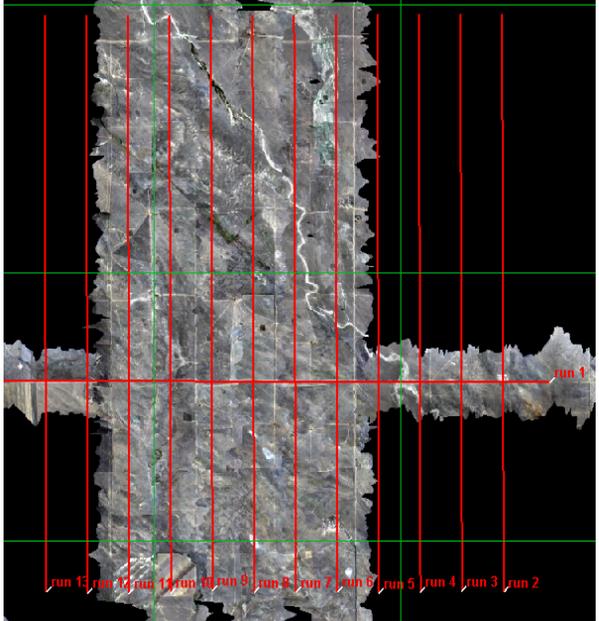
CPER NIS



K10A Lidar



K10A NIS



Pictures



Top: Clear skies over CPER as observed from the aircraft

Bottom: Sky over CPER as observed from the ground (Photo courtesy of Robb W and David H)





Tarps deployed at CPER for the Satellite Overpass Coincident Collection & 1000m Multiple Altitude Test Flight



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
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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
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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
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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
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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
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Flown: 100% (6/6)

Green: 100% (6/6)

Yellow: 0% (0/6)

Red: 0% (0/6)

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

2	3	4	5	6	7
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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
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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
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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
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Flown: 0% (0/18)
 Green: 0% (0/18)
 Yellow: 0% (0/18)
 Red: 0% (0/18)

D00|W10C (Wiggle Timing Test - Riegl)

1	2
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Flown: 100% (2/2)
 Green: 0% (0/2)
 Yellow: 0% (0/2)
 Red: 100% (2/2)

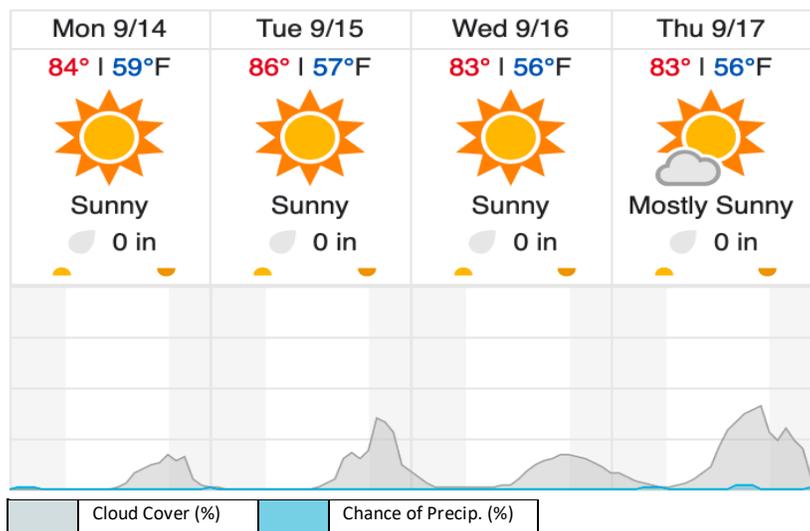
D10|ARIK (Arikaree River)

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: 97% (34/35)
 Green: 31% (11/35)
 Yellow: 46% (16/35)
 Red: 20% (7/35)

Weather Forecast

Boulder, CO



Flight Collection Plan for 14 September 2020

Flyority 1

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 2

Collection Area: 2000m Multiple Altitude Flight - RMNP

Flight Plan Name: D10_K10B_Multiple_Alt_v2

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

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

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

Wednesday 9/16 Crew: Cam (Lidar), Mitch (NIS), Robb (Ground)