

Payload 1 Daily Flight Report



Date: 2021-10-15 Flight Campaign ID: P1C2 Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO Aircraft: N331AR

Domain: 00 (Training & Calibration)
Sites Flown: BLKF (Black Forest Waveform Range Test - Galaxy), B10F (Greeley Boresight Geocalibration)
Days left in Domain: 02

Report Author: Mitch HaynesFlight Hours: 02:58 + 00:34Lidar Operators: Mitch Haynes, Abe MorrisonFlight Hours: 02:58 + 00:34Spectrometer Operators: Cam Chapman, Elissa BarrisHours until maintenance: 118.35Pilots: Stephen Brawders, Justin EddingtonGPS Instruments: AOP_KBDUGround Crew: Abe Morrison, Elissa Barris, Mitch Hayes, Cam Chapman

Summary

Crew awoke early this morning in an attempt to finish all remaining calibration flights and avoid working this weekend. Part 1 of this plan was successful, with Black Forest being flown in its entirety. No waveform buffer overflow errors occurred. The Otter then returned to Boulder, swapped crews, and headed out towards Greeley at the start of the 30° solar angle in an attempt to complete the Greeley Boresight Geocalibration. This is where the plan was foiled, as cumulus clouds had built beyond acceptable levels for boresight. Crews will return to work again tomorrow in hopes of finishing cal flights.

Concerns

None

Comments

None

Daily Coverage

Estimated Cloud Cover Key

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

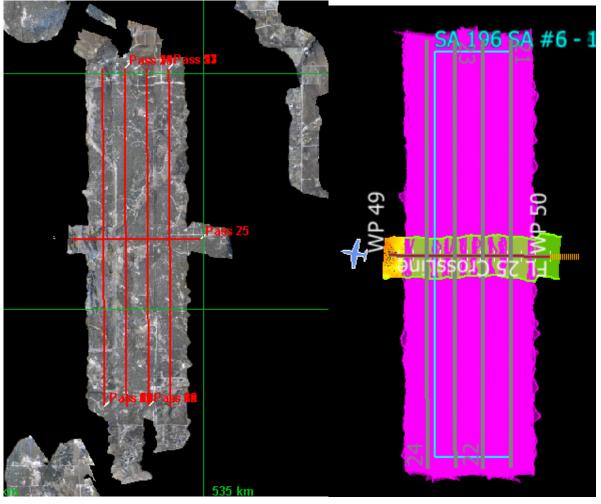
D00|BLKF

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

Line #	19	20	21	22	23	24	25
Lidar	\checkmark						
Spectrometer	\checkmark						
Camera	\checkmark						
Cloud Cover							

Total number of lines flown: 25

Flight Screenshots



Cumulative Domain Coverage

D00|B10F (Complete Greeley Boresight Geocalibration - 1500m, 1000m, 550m - Galaxy)

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)% (0/2	20)																	

D00|BLKF (Black Forest Waveform Range Test - Galaxy)

											/	/							
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% (21/25) Green: 0% (0/25) Yellow: 100% (25/25) Red: 0% (0/25)

D00 | D10C (Boulder City Eye Safety Test)

 1
 2

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

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

D00 | H10D (NEON Headquarters Lidar Validation - Galaxy)

 1
 2
 3
 4

 Flown: 100% (4/4)
 Green: 100% (4/4)
 Yellow: 0% (0/4)
 Yellow: 0% (0/4)

 Red:
 0% (0/4)
 Yellow: 0% (0/4)
 Yellow: 0% (0/4)
 Yellow: 0% (0/4)

D00 | N10F (Nominal Runway at KBDU - Galaxy)

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	36		3	7	

Flown: 100% (37/37) Green: 59% (22/37) Yellow: 41% (15/37) Red: 0% (0/37)

D00 O10C (NIS Offset - Galaxy)

		et ealan	1/						
1	2	1	2	1	2	1	2	1	2
	((= (=)								

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

D00 | R10E (Table Mountain Radiometric Calibration - Galaxy)

5

4

 1
 2

 Flown: 100% (5/5)
 Green: 100% (5/5)

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

D00 | W10D (Wiggle Timing Test - Galaxy)

3

 1
 2

 Flown: 100% (2/2)
 Green: 100% (2/2)

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

Photos



Early morning flight operations out of Boulder.

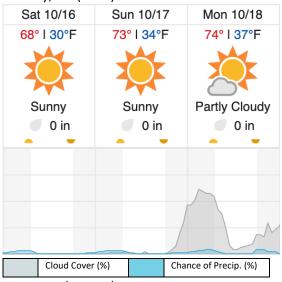




Weather Forecast

Boulder, CO (KB	DU)	
Sat 10/16	Sun 10/17	Mon 10/18
66° 40°F	72° 45°F	71° 42°F
		*
Sunny	Sunny	Mostly Sunny
🖉 0 in	🖉 0 in	🖉 0 in
• •	• •	• •
		\wedge

Greeley, CO (B10F)



source: wunderground.com

Flight Collection Plan for 16 October 2021

Flyority 1

Collection Area: Boresight Calibration – Greeley, CO Flight Plan Name: D10_B10F_Boresight_Geocal_v8_PRM On-station Time: 16:20 UTC / 10:20 L

Crew: Abe (Lidar), John (NIS), Cam (Ground)