Payload 1 Daily Flight Report

Date: 2021-04-18
Flight Campaign ID: P1C2
Airport, FBO ID, City: Rocky Mountain Metropolitan Airport (KBJC) - Broomfield, CO
Aircraft: N331AR

Domain: 00 (Training & Calibration)
Sites Flown: BLKF (Black Forest Waveform Range Test - Galaxy)
Days left in Domain: 12

Report Author: Ivana Vu
Lidar Operators: Ivana Vu
Spectrometer Operators: Robb Walker
Pilots: Justin Eddington, Will Mathews
Ground Crew: Michael Wussow

Flight Hours: 03:23
Hours until maintenance: 104.33
GPS Instruments: AOP_KBDU, S-COSG, U-P041

Summary
While the weather appeared to be good for flights at the Boulder Airport this morning, by the time we arrived on station, there were low clouds and virga over the runway. After we attempted 1 lower-altitude line of the Nominal Runway and experienced an eye-safety shutoff, we diverted to the Black Forest flight box where conditions were more ideal for data collection.

Concerns
POSFT Client lost connection while POS files were being copied to desktop and UPDU had to be restarted to copy remaining files.

Comments
• TOIL pilot rotation: Will Mathews replaced Ashley Taylor
• N331AR repositioned to KBDU

Daily Coverage
Estimated Cloud Cover Key

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<th>Green: 0-10%</th>
<th>Yellow: 11-50%</th>
<th>Red: &gt;50%</th>
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Line # | 21
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Lidar | ✓
Spectrometer | ✓
Camera | ✓
Cloud Cover | 

Total number of lines flown: 21

**Flight Screenshots**

- Lidar (N10F)
- NIS (N10F)
- Lidar (BLKF)
- NIS (BLKF)

**Pictures**

Black Forest site showing the burn scar from 2013
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: 100% (20/20)
Green: 100% (20/20)
Yellow: 0% (0/20)
Red: 0% (0/20)

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

D00|H10D (NEON Headquarters Lidar Validation - Galaxy)

1 2 3 4
Flown: 100% (4/4)
Green: 100% (4/4)
Yellow: 0% (0/4)
Red: 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
Flown: 43% (15/35)
Green: 0% (0/35)
Yellow: 0% (0/35)
Red: 43% (15/35)

D00|O10C (NIS Offset - Galaxy)

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

D00|R10E (Table Mountain Radiometric Calibration - Galaxy)

1 2 3 4 5
Flown: 100% (5/5)
Green: 100% (5/5)
Yellow: 0% (0/5)
Red: 0% (0/5)

D00|V10F (Boulder City Nominal - 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
Flown: 38% (11/29)
Green: 14% (4/29)
Yellow: 0% (0/29)
Red: 24% (7/29)
D00|W10D (Wiggle Timing Test - Galaxy)

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

Weather Forecast
Boulder, CO

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<td>19°F</td>
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<td>24°F</td>
<td>36°F</td>
<td>25°F</td>
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| PM Rain/Snow | Mostly Sunny | Snow Showers | Partly Cloudy | Partly Cloudy | Mostly Sunny | Partly Cloudy | 5.9 in | -- in | 2.5 in | 0 in | 0 in | 0 in |

source: wunderground.com

Flight Collection Plan for 19 April 2021
Flyority 1
Collection Area: [Functional Checkout Flight] – Nominal Runway Survey Flight Plan
Name: D10_N10F_Nominal_Rnwy_v9_PRM.xml
On-Station Time: Daylight – No solar angle restrictions.
Additional Considerations: Runway should not be wet, or snow covered.

Flyority 2
Collection Area: NIS Offset Flight
Flight Plan Name: D10_O10C_NIS_Offset_v2_PRM.xml
On-station Time: 1600 UTC / 1000 L

Crew: Matt (Lidar), Mike (NIS), Elissa (Ground)