Payload 3 Daily Flight Report

Date: 2022-04-17
Flight Campaign ID: P3C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO, Rocky Mountain Metropolitan Airport (KBJC) – Broomfield, CO
Aircraft: N70AR

Domain: 00 (Training & Calibration)
Sites Flown: Transit (KBDU -> KBJC)
Days left in Domain: 8

Report Author: Mitch
Lidar Operators: Elissa
Flight Hours: 00:13
Spectrometer Operators: Hours until maintenance: 118.88
Pilots: Nick, Magnus
GPS Instruments: AOP_KBDU
Adt'l Flight Crew: Mitch
Ground Crew: Cameron, Abe

Summary
Interesting day for the payload 3 crew; with the second Otter arriving in Boulder this morning and planned installation of payload 1 into N331AR, the team had anticipated moving N70AR outside and parking on the tarmac, receiving power from the newly installed electrical flight line. However issues arose questioning the reliability of the electrical flight line to provide power overnight. After debating several options, it was decided to relocate to KBJC for the night in order to guarantee the system stays in survey state for tomorrow, which forecasts as a potential radiometric calibration day.

Concerns
Electrical contractor will be out to the hangar in the morning to troubleshoot.

Comments
The team debated conducting a calibration flight and/or recertification flight as part of the relocation to KBJC, however high winds forced us to abandon that prospect.

Pictures: It was a short but turbulent flight over to KBJC. Photo one of few taken by Mitch.
**Cumulative Domain Coverage**

**D00|B10E (Riegl Boresight Calibration - 1600m, 1000m, 500m)**

- Flown: 100% (20/20)
- Green: 0% (0/20)
- Yellow: 0% (0/20)
- Red: 100% (20/20)

**D00|H10C (NEON Headquarters Lidar Test - Riegl)**

- Flown: 0% (0/4)
- Green: 0% (0/4)
- Yellow: 0% (0/4)
- Red: 0% (0/4)

**D00|N10D (Nominal Runway at KBDU - Riegl)**

- Flown: 86% (24/28)
- Green: 0% (0/28)
- Yellow: 11% (3/28)
- Red: 75% (21/28)

**D00|O10B (NIS Offset - Riegl)**

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

**D00|R10C (Table Mountain Radiometric Calibration - Riegl)**

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

**D00|V10C (Boulder City South)**

- Flown: 0% (0/29)
- Green: 0% (0/29)
- Yellow: 0% (0/29)
- Red: 0% (0/29)

**D00|W10C (Wiggle Timing Test - Riegl)**

- Flown: 0% (0/2)
- Green: 0% (0/2)
- Yellow: 0% (0/2)
- Red: 0% (0/2)
Weather Forecast
Boulder, CO

<table>
<thead>
<tr>
<th></th>
<th>Cloud Cover (%)</th>
<th>Chance of Precip. (%)</th>
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<tbody>
<tr>
<td>Mon 4/18</td>
<td>Sunny 0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Tue 4/19</td>
<td>Partly Cloudy 0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Wed 4/20</td>
<td>Mostly Sunny 0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Thu 4/21</td>
<td>Mostly Sunny 0 in</td>
<td>0.1 in</td>
</tr>
<tr>
<td>Fri 4/22</td>
<td>Partly Cloudy 0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Sat 4/23</td>
<td>Partly Cloudy 0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Sun 4/24</td>
<td>Sunny 0 in</td>
<td>0 in</td>
</tr>
</tbody>
</table>

source: wunderground.com

Flight Collection Plan for 18 April 2022

Flyority 1
Collection Area: Table Mountain Radiometric Calibration
Flight Plan Name: D10_R10C_Rad_Cal_TBMT_v1_Q780
45° On-station Time: 1640 UTC / 1040 L
40° On-station Time: 1610 UTC / 1010 L
Additional Considerations: Ground should be dry.

Flyority 2
Collection Area: Wiggle Timing Test
Flight Plan Name: D10_W10C_Wiggle_Test_v5_Q780
On-station Time: Daylight – No solar angle restrictions.

Flyority 3
Collection Area: NEON HQ Lidar Validation
Flight Plan Name: D10_H10C_HQ_LIDAR_val_v1_Q780
On-station Time: Daylight – No solar angle restrictions.

Flyority 4
Collection Area: NIS Offset Flight
Flight Plan Name: D10_O10B_NIS_Offset_v2_Q780
35° On-station Time: 1540 UTC / 0940 L

Flight Crew: Elissa (Lidar), Mitch (NIS), Cam (Train), Mike (Ground)