Date: 2020-08-30
Flight Campaign ID: P3C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO

Domain: 00 (Training & Calibration)
Sites Flown: B10E (Riegl Boresight Calibration - 1600m, 1000m, 500m)
Days left in Domain: 18

Report Author: Robb Walker
Lidar Operators: Robb Walker
Spectrometer Operators: Cameron Chapman
Pilots: Jeff Quintanilla, Justin Eddington
Ground Crew: Mitch Haynes

Flight Hours: 02:42
Hours until maintenance: 25.85
GPS Instruments: AOP_KBDU, U-CHLL

Summary
Payload-3 was able to collect Boresight Calibration this morning before clouds and wind increased. A couple of lines at the higher altitude could not be kept at 100knts due to high tailwinds.

Concerns
None

Comments
-Some lines in lower flight level kml’s did not match summary flight line numbering, but summary sequence was followed. This may have been due to loading B10D_1600m, B10D_1000m, and B10D_500m kmls, rather than B10E_Boresight_Q780_fltlines_all and hopefully won’t be an issue during extraction.

Daily Coverage

Estimated Cloud Cover Key

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

D00|B10E

<table>
<thead>
<tr>
<th>Line #</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td>Lidar</td>
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<td>Spectrometer</td>
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<tr>
<td>Cloud Cover</td>
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Total number of lines flown: 20
Skies over Greeley this morning.
### Cumulative Domain Coverage

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

<table>
<thead>
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<th>1</th>
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<th>20</th>
</tr>
</thead>
</table>

- 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)

<table>
<thead>
<tr>
<th>11</th>
<th>12</th>
<th>13</th>
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<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
</tr>
</thead>
</table>

- Flown: 0% (0/14)
- Green: 0% (0/14)
- Yellow: 0% (0/14)
- Red: 0% (0/14)

**D00|F10A** (D10 BRDF Flight - CPER)

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<thead>
<tr>
<th>1</th>
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<th>19</th>
<th>20</th>
</tr>
</thead>
</table>

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

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

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

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

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

<table>
<thead>
<tr>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
</table>

- Flown: 0% (0/6)
- Green: 0% (0/6)
- Yellow: 0% (0/6)
- Red: 0% (0/6)

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

<table>
<thead>
<tr>
<th>2</th>
<th>3</th>
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<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

- 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)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
</table>
**Flown:** 0% (0/2)
**Green:** 0% (0/2)
**Yellow:** 0% (0/2)
**Red:** 0% (0/2)

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

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>
**Flown:** 100% (5/5)
**Green:** 100% (5/5)
**Yellow:** 0% (0/5)
**Red:** 0% (0/5)

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

<table>
<thead>
<tr>
<th>2</th>
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<th>15</th>
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<th>18</th>
<th>19</th>
</tr>
</thead>
</table>
**Flown:** 0% (0/18)
**Green:** 0% (0/18)
**Yellow:** 0% (0/18)
**Red:** 0% (0/18)

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

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
</table>
**Flown:** 100% (2/2)
**Green:** 0% (0/2)
**Yellow:** 0% (0/2)
**Red:** 100% (2/2)

### Weather Forecast

#### Boulder, CO

<table>
<thead>
<tr>
<th>Mon 8/31</th>
<th>Tue 9/1</th>
<th>Wed 9/2</th>
<th>Thu 9/3</th>
<th>Fri 9/4</th>
<th>Sat 9/5</th>
<th>Sun 9/6</th>
</tr>
</thead>
<tbody>
<tr>
<td>72°F</td>
<td>50°F</td>
<td>74°F</td>
<td>53°F</td>
<td>83°F</td>
<td>54°F</td>
<td>76°F</td>
</tr>
</tbody>
</table>

- Mostly Sunny
- 0 in

#### Nunn, CO

<table>
<thead>
<tr>
<th>Mon 8/31</th>
<th>Tue 9/1</th>
<th>Wed 9/2</th>
<th>Thu 9/3</th>
<th>Fri 9/4</th>
<th>Sat 9/5</th>
<th>Sun 9/6</th>
</tr>
</thead>
<tbody>
<tr>
<td>75°F</td>
<td>50°F</td>
<td>79°F</td>
<td>51°F</td>
<td>87°F</td>
<td>53°F</td>
<td>78°F</td>
</tr>
</tbody>
</table>

- Mostly Sunny
- 0.05 in
- 0 in
- 0 in
- 0 in
- 0 in
- 0 in
- 0 in
Flight Collection Plan for 31 August 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: 1000 – 1600 Local / 1600 – 2200 UTC

Flyority 2
Collection Area: 2000m Multiple Altitude Flight - CPER
Flight Plan Name: D10_K10A_Multiple_Alt_2000m_v1
On-station Time: 1000 – 1600 Local / 1600 – 2200 UTC

Flyority 3
Collection Area: 1000m Multiple Altitude Test Flight - RMNP
Flight Plan Name: D10_RMNP_R2_P1_v2_Q780
On-station Time: 1000 – 1610 Local / 1600 – 2210 UTC

Flyority 4
Collection Area: 2000m Multiple Altitude Flight - RMNP
Flight Plan Name: D10_K10B_Multiple_Alt_v2
On-station Time: 1000 – 1610 Local / 1600 – 2210 UTC

Flyority 5
Collection Area: NIS Offset Flight
Flight Plan Name: D10_O10B_NIS_Offset_v2_Q780
On-station Time: 0930 – 1640 Local / 1530 – 2240 UTC

Monday 8/31 Crew: Cam (Lidar), Ivana (NIS), Robb (Ground)
Tuesday 9/1 Crew: Mitch (Lidar), Robb (NIS), Cam (Ground)
Wednesday 9/2 Crew: Robb (Lidar), Cam (NIS), Mitch (Ground)