Date: 2020-08-27
Flight Campaign ID: P3C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO

Domain: 00 (Training & Calibration)
Sites Flown: R10C (Table Mountain Radiometric Calibration - Riegl)
Days left in Domain: 21

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

Flight Hours: 01:17
Hours until maintenance: 28.55
GPS Instruments: AOP_KBDU

Summary
The crew took advantage of the relatively clear morning sky and flew the 40 and 45 solar angle Table Mountain Radiometric Calibration flights. Smoke was still noted but drastically improved from the past two weeks.

Concerns
- None

Comments
- No lidar acquired.
- Happy Birthday to me!! 😊

Daily Coverage

Estimated Cloud Cover Key

<table>
<thead>
<tr>
<th>Green: 0-10%</th>
<th>Yellow: 11-50%</th>
<th>Red: &gt;50%</th>
</tr>
</thead>
</table>

D00|R10C

<table>
<thead>
<tr>
<th>Line #</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidar</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Spectrometer</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Camera</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cloud Cover</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Total number of lines flown: 5
Flight Screenshots

NIS Geo Paint

Pictures
### Cumulative Domain Coverage

#### D00|B10E (Riegl Boresight Calibration - 1600m, 1000m, 500m)
- Flown: 0% (0/20)
- Green: 0% (0/20)
- Yellow: 0% (0/20)
- Red: 0% (0/20)

#### D00|CPR (Satellite Overpass Coincident Collection & 1000m Multiple Altitude Test Flight - CPER)
- Flown: 0% (0/14)
- Green: 0% (0/14)
- Yellow: 0% (0/14)
- Red: 0% (0/14)

#### D00|F10A (D10 BRDF Flight - CPER)
- Flown: 0% (0/20)
- Green: 0% (0/20)
- Yellow: 0% (0/20)
- Red: 0% (0/20)

#### D00|H10C (NEON Headquarters Lidar Test - Riegl)
- Flown: 100% (4/4)
- Green: 0% (0/4)
- Yellow: 0% (0/4)
- Red: 100% (4/4)

#### D00|K10A (2000m Multiple Altitude Test Flight - CPER)
- Flown: 0% (0/6)
- Green: 0% (0/6)
- Yellow: 0% (0/6)
- Red: 0% (0/6)

#### D00|K10B (2000m Multiple Altitude Test Flight - RMNP)
- Flown: 0% (0/6)
- Green: 0% (0/6)
- Yellow: 0% (0/6)
- Red: 0% (0/6)

#### D00|N10D (Nominal Runway at KBDU - Riegl)
- Flown: 92% (24/26)
- Green: 0% (0/26)
- Yellow: 0% (0/26)
- Red: 92% (24/26)

#### 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)**

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

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

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flown:</td>
<td>0% (0/18)</td>
<td>Green: 0% (0/18)</td>
<td>Yellow: 0% (0/18)</td>
<td>Red: 0% (0/18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flown:</td>
<td>100% (2/2)</td>
<td>Green: 0% (0/2)</td>
</tr>
</tbody>
</table>

**Weather Forecast**

**Boulder, CO**

<table>
<thead>
<tr>
<th></th>
<th>Fri 8/28</th>
<th>Sat 8/29</th>
<th>Sun 8/30</th>
<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>
</tr>
</thead>
<tbody>
<tr>
<td>Temp</td>
<td>81°</td>
<td>81°</td>
<td>86°</td>
<td>77°</td>
<td>80°</td>
<td>84°</td>
<td>82°</td>
<td>81°</td>
</tr>
<tr>
<td>Cond</td>
<td>Mostly Cloudy</td>
<td>Isolated</td>
<td>Partly Cloudy</td>
<td>Mostly Sunny</td>
<td>Mostly Sunny</td>
<td>Mostly Sunny</td>
<td>Mostly Sunny</td>
<td>Sunny</td>
</tr>
<tr>
<td>Precip</td>
<td>0 in</td>
<td>0.07 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
</tr>
</tbody>
</table>

**Greeley, CO**

<table>
<thead>
<tr>
<th></th>
<th>Fri 8/28</th>
<th>Sat 8/29</th>
<th>Sun 8/30</th>
<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>
</tr>
</thead>
<tbody>
<tr>
<td>Temp</td>
<td>85°</td>
<td>83°</td>
<td>90°</td>
<td>76°</td>
<td>81°</td>
<td>86°</td>
<td>84°</td>
<td>82°</td>
</tr>
<tr>
<td>Cond</td>
<td>Mostly Cloudy</td>
<td>Partly Cloudy</td>
<td>Partly Cloudy</td>
<td>Mostly Sunny</td>
<td>Mostly Sunny</td>
<td>Sunny</td>
<td>Mostly Sunny</td>
<td>Sunny</td>
</tr>
<tr>
<td>Precip</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
</tr>
</tbody>
</table>
Flight Collection Plan for 28 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: Riegl Boresight Calibration at Greeley
Flight Plan Name: D10_B10E_Boresight_1600m_Q780
On-station Time: 0900 – 1700 Local / 1500 – 2300 UTC

**Flyority 6**
Collection Area: NIS Offset Flight
Flight Plan Name: D10_O10B_NIS_Offset_v2_Q780
On-station Time: 0930 – 1640 Local / 1530 – 2240 UTC

Friday 8/28 Crew: Ivana (Lidar), Mitch (NIS), Cam (Ground)
Saturday 8/29 Crew: Mitch (Lidar), Robb (NIS), Ivana (Ground)
Sunday 8/30 Crew: Robb (Lidar) Cam (NIS) Mitch (Ground)