**Payload 2 Daily Flight Report**

**Date:** 2020-08-18  
**Flight Campaign ID:** P2C1  
**Airport, FBO ID, City:** Boulder Municipal Airport (KBDU) - Boulder, CO  

**Domain:** 00 (Training & Calibration)  
**Sites Flown:** None  
**Days left in Domain:** 2  

**Report Author:** Michael Wussow  
**Lidar Operators:** Michael Wussow  
**Flight Hours:** 00:00  
**Spectrometer Operators:** John Adler  
**Hours until maintenance:** 17.12  
**Pilots:** Chad Evans, Stephen Brawders  
**Ground Crew:** Robb Walker  

**Summary**  
Smoke and clouds continued throughout the day preventing good enough conditions for the remaining spectrometer research flights.

**Concerns**  
None  

**Comments**  
The dismal outlook of the smoke forecast has pushed the decision to remove Payload 2 from N615AR early. Payload removal is scheduled for this Friday with hopes that Payload 3 can complete the missions.

**Pictures**

![Conditions at CPER this morning](image-url)
### Cumulative Domain Coverage

#### Estimated Cloud Cover Key

<table>
<thead>
<tr>
<th>Color</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>0-10%</td>
</tr>
<tr>
<td>Yellow</td>
<td>11-50%</td>
</tr>
<tr>
<td>Red</td>
<td>&gt;50%</td>
</tr>
</tbody>
</table>

---

**D00|B10B (Complete Greeley Boresight Geocalibration - 1500m, 1000m, 500m)**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 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: 100% (20/20)
- Red: 0% (0/20)

---

**D00|CPER (Satellite Overpass Coincident Collection - Central Plains Ecological Range)**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 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|

- Flown: 0% (0/28)
- Green: 0% (0/28)
- Yellow: 0% (0/28)
- Red: 0% (0/28)

---

**D00|F10A (D10 BRDF Flight - Central Plains Ecological Range)**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 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% (0/20)

---

**D00|H10B (NEON Headquarters Lidar Test - modified cross-track)**

|   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10|

- Flown: 100% (4/4)
- Green: 50% (2/4)
- Yellow: 50% (2/4)
- Red: 0% (0/4)

---

**D00|N10C (Nominal Runway at KBDU - Optech)**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 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|

- Flown: 100% (14/14)
- Green: 0% (0/14)
- Yellow: 0% (0/14)
- Red: 100% (14/14)

---

**D00|O10A (NIS Offset)**

|   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10| 11| 12|

- Flown: 100% (5/5)
- Green: 100% (5/5)
- Yellow: 0% (0/2)
- Red: 0% (0/2)

---

**D00|R10A (Table Mountain Radiometric Calibration)**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 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|

- Flown: 100% (5/5)
- Green: 100% (5/5)
- Yellow: 0% (0/5)
- Red: 0% (0/5)
**D00|W10B (Wiggle Timing Test)**

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

**Weather Forecast**
Boulder, CO

<table>
<thead>
<tr>
<th></th>
<th>Wed 8/19</th>
<th>Thu 8/20</th>
<th>Fri 8/21</th>
<th>Sat 8/22</th>
<th>Sun 8/23</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PM</strong></td>
<td>92°</td>
<td>89°</td>
<td>94°</td>
<td>93°</td>
<td>95°</td>
</tr>
<tr>
<td><strong>Thunderstorms</strong></td>
<td>云</td>
<td>0.01 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
</tr>
<tr>
<td><strong>Cloud Cover (%)</strong></td>
<td>80%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Chance of Precip. (%)</strong></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Nunn, CO (CPER)

<table>
<thead>
<tr>
<th></th>
<th>Wed 8/19</th>
<th>Thu 8/20</th>
<th>Fri 8/21</th>
<th>Sat 8/22</th>
<th>Sun 8/23</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mostly Sunny</strong></td>
<td>92°</td>
<td>90°</td>
<td>95°</td>
<td>94°</td>
<td>94°</td>
</tr>
<tr>
<td><strong>Partly Cloudy</strong></td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
</tr>
<tr>
<td><strong>Cloud Cover (%)</strong></td>
<td>80%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Chance of Precip. (%)</strong></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Flight Collection Plan for 19 August 2020**

**Flyority 1**
Collection Area: Radiometric Calibration at Table Mountain
Flight Plan Name: D10_R10A_Radiometric_Calibration_Table_Mountain_v1.pln
On-station Time: 0950 – 1620 Local / 1550 – 2220 UTC

**Flyority 2**
Collection Area: Satellite Overpass Coincident Collection – Central Plains Ecological Range (only if conditions are “green”)
Flight Plan Name: D10_CPER_C1_P1_v4.pln
On-station Time: 0950 – 1620 Local / 1550 – 2220 UTC
Flyority 3
Collection Area: D10 BRDF Flight – Central Plains Ecological Range (only if conditions are “green”)
Flight Plan Name: D10_F10A_BRDF_v1.pln
On-station Time: 0950 – 1620 Local / 1550 – 2220 UTC
Crew members: John (Lidar), Mike (NIS), Robb (Ground); Bridget, Dave (Tarps)

Flight Collection Plan for 20 August 2020
Flyority: Same as previous day
Crew members: Mike (Lidar), Ivana (NIS), Robb (Ground); Bridget, Dave (Tarps)