Payload 3 Daily Flight Report

Date: 2023-08-31
Flight Campaign ID: P3C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO
Aircraft: N934MU

Domain: 00 (Training & Calibration), 10 (Central Plains), 13 (Southern Rockies & Colorado Plateau)
Sites Flown: RMNP (Rocky Mountain National Park)
Days left in Domain: 0

Report Author: Mitch
Lidar Operators: Mitch
Flight Hours: 01:33
Spectrometer Operators: Cameron
Hours until maintenance: 65.67
Pilots: Will, Justin
GPS Instruments: AOP_KBDU, AOP_NIWO
Ground Crew: Mike

Summary
One last clear morning over the front range allowed the P3 crew to better up 5 previously collected lines at RMNP under green sky conditions. This concludes both D10/13 efforts and calibration flights for the season. The payload be removed from the aircraft tomorrow. Congratulations to all on a great flight season!

Concerns
None

Comments
- Hg Lamp collect was collected after the flight today.
- Conducted a tour with the D10/13 staff in the afternoon.
- Thanks to all that came out to the end of season AOP festivities this evening!

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>

D10|RMNP

<table>
<thead>
<tr>
<th>Line #</th>
<th>1</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidar</td>
<td>✓</td>
<td>✓</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>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Camera</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cloud Cover</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Total number of lines flown: 7
Flight Screenshots
Lidar on the left, NIS on the right

Pictures: Clear skies above RMNP this morning.
Above: Group photo from the D10/13 Staff tour. Below: Nick introduces the AOP to the D10/13 staff.
### Final Cumulative Domain Coverage for D10/13 and Calibration Flights

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

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

- Flown: 100% (20/20)
- Green: 100% (20/20)
- 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|N10D (Nominal Runway at KBDU - Riegl)**

<table>
<thead>
<tr>
<th>1</th>
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<th>5</th>
<th>6</th>
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<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>
<th>20</th>
</tr>
</thead>
</table>

- Flown: 86% (24/28)
- Green: 50% (14/28)
- Yellow: 36% (10/28)
- Red: 0% (0/28)

**D00|R10D (Boulder Airport Radiometric Calibration)**

<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)

**D10|ARIK (Arikaree River)**

| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

- Flown: 100% (33/33)
- Green: 100% (33/33)
- Yellow: 0% (0/33)
- Red: 0% (0/33)

**D10|RMNP (Rocky Mountain National Park)**

| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|

- Flown: 100% (38/38)
- Green: 89% (34/38)
- Yellow: 11% (4/38)
- Red: 0% (0/38)

**D13|NIWO (Niwot Ridge Mountain Research Station)**

| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|

- Flown: 100% (51/51)
- Green: 100% (51/51)
- Yellow: 0% (0/51)
- Red: 0% (0/51)

**D13|WLOU (West St. Louis Creek)**
### ASO Home Weather Forecasts

<table>
<thead>
<tr>
<th></th>
<th>Fri 9/1</th>
<th>Sat 9/2</th>
<th>Sun 9/3</th>
<th>Mon 9/4</th>
<th>Tue 9/5</th>
<th>Wed 9/6</th>
<th>Thu 9/7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temp</td>
<td>98°</td>
<td>62°F</td>
<td>96°</td>
<td>61°F</td>
<td>94°</td>
<td>60°F</td>
<td>87°</td>
</tr>
<tr>
<td>Cond</td>
<td>Mostly Sunny</td>
<td>Mostly Sunny</td>
<td>Mostly Sunny</td>
<td>PM Thunderstorms</td>
<td>Mostly Sunny</td>
<td>Sunny</td>
<td>Sunny</td>
</tr>
<tr>
<td>Precipitation</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>
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<th>Thu 9/7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temp</td>
<td>80°</td>
<td>63°F</td>
<td>88°</td>
<td>69°F</td>
<td>90°</td>
<td>70°F</td>
<td>91°</td>
</tr>
<tr>
<td>Cond</td>
<td>Sunny</td>
<td>Sunny</td>
<td>Sunny</td>
<td>Sunny</td>
<td>Partly Cloudy</td>
<td>Isolated Thunderstorms</td>
<td>Isolated Thunderstorms</td>
</tr>
<tr>
<td>Precipitation</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
<td>0 in</td>
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</tr>
</thead>
<tbody>
<tr>
<td>Temp</td>
<td>75°</td>
<td>68°F</td>
<td>76°</td>
<td>68°F</td>
<td>71°</td>
<td>65°F</td>
<td>72°</td>
</tr>
<tr>
<td>Cond</td>
<td>Partly Cloudy</td>
<td>AM Clouds/PM Sun</td>
<td>AM Clouds/PM Sun</td>
<td>Partly Cloudy</td>
<td>Partly Cloudy</td>
<td>Mostly Sunny</td>
<td>Partly Cloudy</td>
</tr>
<tr>
<td>Precipitation</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>
Cloud Cover (%) | Chance of Precip. (%)
--- | ---
Partly Cloudy | 0 in
Thunderstorms | 0.1 in
Thunderstorms | 0.05 in
GM | 0.03 in
Mostly Sunny | 0 in
Mostly Sunny | 0 in

source: wunderground.com

**Flight Collection Plan for September 1st, 2023**

**Flyority 1**

Collection Area: AOP Hangar

Flight Plan Name: Deinstall both payloads

On-Station Time: 1500 UTC / 0900 L

**Crew:** Matt, Abe, Cam, Mitch