Date: 2024-08-07
Flight Campaign ID: P3C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO
Aircraft: N821AR

Domain: 10 (Central Plains)
Sites Flown: RMNP (Rocky Mountain National Park)
Days left in Domain: 19

Report Author: Elissa
Lidar Operators: Elissa   Flight Hours: 01:50
Spectrometer Operators: Hours until maintenance: 96.43
Pilots: Vince, Manning
Ground Crew: Matt

Summary
Lidar and camera data were collected for the remaining nine lines at RMNP that failed QA on the initial flight. Today’s data appear to have passed the automated QA, completing the refly of RMNP. Sky conditions were ‘red,’ thus the NIS was not operated.

Concerns
Fresh deposits of fuel on the plane’s belly pans indicate that there is still a leak somewhere. Fuel droplets, albeit in smaller amounts, can still be seen on the lidar and camera lenses following flights.

Comments
None.

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

<table>
<thead>
<tr>
<th>Line #</th>
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<tbody>
<tr>
<td>D10</td>
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<table>
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<th>33</th>
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<th>36</th>
<th>37</th>
<th>38</th>
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<tbody>
<tr>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Spectrometer</td>
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<td>✓</td>
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<td>Camera</td>
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<td>✓</td>
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</tbody>
</table>

Total number of lines flown: 9
Flight Screenshots

Lidar

Cumulative Domain Coverage

D10|ARIK (Arikaree River)

| 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 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |

Flown: 0% (0/33)
Green: 0% (0/33)
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 |
|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |

Flown: 97% (38/39)
Green: 97% (38/39)
Yellow: 0% (0/39)
Red: 0% (0/39)

D10|STER (Sterling Agricultural Site)

| 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 |

Flown: 100% (25/25)
Green: 100% (25/25)
Yellow: 0% (0/25)
Red: 0% (0/25)
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 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |   |   |   |   |   |   |   |   |   |   |

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

D13 | WLOU (West St. Louis Creek)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |   |   |   |   |   |   |   |   |

Flown: 92% (12/13)
Green: 92% (12/13)
Yellow: 0% (0/13)
Red: 0% (0/13)

Weather Forecast

Nederland, CO (NIWO)

<table>
<thead>
<tr>
<th>Thu 8/8</th>
<th>Fri 8/9</th>
<th>Sat 8/10</th>
<th>Sun 8/11</th>
<th>Mon 8/12</th>
<th>Tue 8/13</th>
<th>Wed 8/14</th>
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</thead>
<tbody>
<tr>
<td>61°</td>
<td>51°F</td>
<td>65°</td>
<td>53°F</td>
<td>73°</td>
<td>54°F</td>
<td>72°</td>
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</tbody>
</table>

Thunderstorms

Thunderstorms

Thunderstorms

Scattered

PM

PM

PM

PM

PM

PM

PM

0.22 in

0.22 in

0.17 in

0.06 in

0.1 in

0.13 in

0.17 in


Allenspark, CO (RMNP)

<table>
<thead>
<tr>
<th>Thu 8/8</th>
<th>Fri 8/9</th>
<th>Sat 8/10</th>
<th>Sun 8/11</th>
<th>Mon 8/12</th>
<th>Tue 8/13</th>
<th>Wed 8/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>58°</td>
<td>48°F</td>
<td>63°</td>
<td>49°F</td>
<td>70°</td>
<td>51°F</td>
<td>70°</td>
</tr>
</tbody>
</table>

Thunderstorms

Thunderstorms

Thunderstorms

PM

PM

PM

PM

PM

PM

PM

PM

0.28 in

0.3 in

0.16 in

0.04 in

0.15 in

0.12 in

0.08 in
Flight Collection Plan for 8 August 2024

Flyority 1
Collection Area: Arikaree River (ARIK) – Priority 1 & 2 Flight Box
Flight Plan Name: D10_ARIK_A1_P2_v3_Q780
On-station Time: 1520 UTC / 0920 L

Flyority 2
Collection Area: Northern Utah Priority 1 Flight Plan
Flight Plan Name: D15_CTWD_S1_P1_v1
On-station Time: 1520 UTC / 0920 L

Flyority 3
Collection Area: Northern Utah Priority 2 Flight Plan
Flight Plan Name: D15_CTWD_S1_P2_v1
On-station Time: 1520 UTC / 0920 L

Crew: Nick (Lidar), Matt (NIS), Elissa (Ground)