Payload 3 Daily Flight Report

Date: 2021-05-18
Flight Campaign ID: P3C1
Airport, FBO ID, City: Salt Lake City International Airport (KSLC) - Salt Lake City, UT
Aircraft: N615AR

Domain: 15 (Great Basin)
Sites Flown: ONAQ (Onaqui-Ault )
Days left in Domain: 5

Report Author: Mitch Haynes
Lidar Operators: Mitch Haynes
Flight Hours: 02:48
Spectrometer Operators: John Adler
Hours until maintenance: 32.18
Pilots: Stephen Brawders, Vince Maarschalkerweerd
GPS Instruments: C-ZLC1, U-P016

Summary
A high strato-cirrus layer over the region this morning eventually moved out, allowing for a brief window of clear skies before building cumulus clouds interfered with collects. 14 total lines were collected over Onaqui, 4 of which were green.

Concerns
None

Comments
None

Daily Coverage
Estimated Cloud Cover Key

<table>
<thead>
<tr>
<th></th>
<th>Green: 0-10%</th>
<th>Yellow: 11-50%</th>
<th>Red: &gt;50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidar</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Spectrometer</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Camera</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cloud Cover</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

D15|ONAQ

<table>
<thead>
<tr>
<th>Line #</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>38</th>
<th>39</th>
<th>40</th>
<th>41</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidar</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>
<tr>
<td>Spectrometer</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>
<tr>
<td>Camera</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>
<tr>
<td>Cloud Cover</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>

Total number of lines flown: 14
Flight Screenshots: NIS on the left, Lidar on the right

Above: Looking west across the Onaqui flight box; building cumulus clouds prevented us from collecting more lines under green, clear sky conditions.
Cumulative Domain Coverage

D15|ONAQ (Onaqui-Ault)

| 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| 29| 30| 31| 32| 33| 34| 35| 36| 37| 38| 39| 40|
| 41| 42|

Flown: 69% (29/42)
Green: 43% (18/42)
Yellow: 17% (7/42)
Red: 10% (4/42)

D15|REDB (Red Butte)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|

Flown: 0% (0/19)
Green: 0% (0/19)
Yellow: 0% (0/19)
Red: 0% (0/19)

Weather Forecast

<table>
<thead>
<tr>
<th>Wed 5/19</th>
<th>Thu 5/20</th>
<th>Fri 5/21</th>
<th>Sat 5/22</th>
<th>Sun 5/23</th>
<th>Mon 5/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>80°</td>
<td>56°F</td>
<td>71°</td>
<td>44°F</td>
<td>64°</td>
<td>41°F</td>
</tr>
</tbody>
</table>

Mostly Sunny 0 in
Mostly Sunny 0 in
Partly Cloudy 0 in
Mostly Sunny 0 in
Partly Cloudy 0 in
Mostly Sunny 0 in

Cloud Cover (%) Chance of Precip. (%)

source: wunderground.com

Flight Collection Plan for 19 May 2021

Flyority 1
Collection Area: Onaqui (ONAQ)
Flight Plan Name: D15_ONAQ_C1_P1_v3_Q780
On-station Time: 1600 UTC / 1000 L

Flyority 2
Collection Area: Red Butte (REDB)
Flight Plan Name: D15_REDB_A1_P1_v2_Q780
On-station Time: 1550 UTC / 0950 L

Flight Crew: John, Mitch