Date: 2021-09-13  
Flight Campaign ID: P3C1  
Airport, FBO ID, City: Scottsdale Municipal Airport (KSDL) - Scottsdale, AZ  
Aircraft: N615AR

Domain: Cottonwood AA Project  
Sites Flown: CTWD_4, CTWD_5, CTWD_6  
Days left in Domain: TBD

Report Author: Abe Morrison  
Lidar Operators: Abe Morrison  
Spectrometer Operators: Matt Devoe  
Pilots: Scott Hayward, Will Mathews  
Flight Hours: 03:05  
Hours until maintenance: 19.85  
GPS Instruments: 06 - KSDL

Summary
The crew took off into another clear sky this morning to collect the remaining lines in the Agua Fria loop of the Cottonwood AA project. The skies stayed clear long enough for us to collect 11 lines in “green” sky conditions. At the end of the flight, the crew attempted to re-collect the 2 lines that were collected in “yellow” sky conditions yesterday. Unfortunately, before we got back to the area of the lines, cumulus clouds started to develop making it the same conditions as yesterday. Those lines were not re-collected.

Concerns
None

Comments
-A TFR in the Boulder CO area tomorrow will not allow the crew to make the trip back home until Wednesday morning.

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>

CTWD_4

<table>
<thead>
<tr>
<th>Line #</th>
<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>
</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>
</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>
</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>
</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>
</tr>
</tbody>
</table>

Total number of lines flown: 11
CTWD_5

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

Total number of lines flown: 4

CTWD_6

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

Total number of lines flown: 4

Flight Screenshots

Lidar NIS

CTWD_4
Cumulative Domain Coverage

**CTWD_1**

<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>
</tr>
</thead>
</table>

- Flown: 100% (9/9)
- Green: 78% (7/9)
- Yellow: 22% (2/9)
- Red: 0% (0/9)

**CTWD_2**

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

- Flown: 100% (1/1)
- Green: 100% (1/1)
- Yellow: 0% (0/1)
- Red: 0% (0/1)
CTWD_3

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

CTWD_4

Flown: 100% (11/11)
Green: 100% (11/11)
Yellow: 0% (0/11)
Red: 0% (0/11)

CTWD_5

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

CTWD_6

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

Weather Forecast
Scottsdale, AZ

Boulder, CO

source: wunderground.com
Flight Collection Plan for 14 September 2021
Finish with data extraction activities and load plane for departure on Wednesday.

Flight Collection Plan for 15 September 2021
Transit to Boulder, CO

Crew: Abe Morrison, Matt DeVoe