Date: 2023-07-21  
Flight Campaign ID: P1C1  
Airport, FBO ID, City: Fairbanks International Airport (PAFA) - Fairbanks, AK  
Aircraft: N331AR  

Domain: 19 (Taiga)  
Sites Flown: DEJU_P1 (Delta Junction), DEJU_P2 (Delta Junction)  
Days left in Domain: 31  

Report Author: Cameron  
Lidar Operators: Cameron  
Spectrometer Operators: Abe  
Pilots: Jeff, Vince  
Flight Hours: 04:31  
Hours until maintenance: 62.98  
GPS Instruments: C-FAI1, U-AC71, U-AC72  

Summary  
The crew welcomed clear skies this morning and completed the Priority 1 and Priority 2 box of DEJU (Delta Junction) in “green” sky conditions. Clouds began to build in the afternoon preventing additional flights from occurring. 

Concerns  
- None 

Comments  
- The waveform recorder connected briefly during the flight however no useable data was obtained. 
- The NIS did not experience the frame-grabber error today. We will continue to monitor. 

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>

D19|DEJU_P1  

<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>21</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>
</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>
</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>
</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>
</tr>
</tbody>
</table>

Total number of lines flown: 10
Total number of lines flown: 10

**Flight Screenshots**

**Lidar Swath**

**NIS Geo Paint**

**Pictures:** The crew arriving at the DEJU site peering toward the Alaskan Range
Above: A nice view of the Trident Glacier on the way back to Fairbanks
Below: Pilots Vince and Jeff take a moment to smile for the camera while transiting near the Alaskan Range. (Photo by Abe)
Cumulative Domain Coverage

D19|BONA (Caribou Creek and Poker Flats Watershed)

| 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 | 43 | 44 | 45 | 46 |

Flown: 0% (0/46)  
Green: 0% (0/46)  
Yellow: 0% (0/46)  
Red: 0% (0/46)

D19|DEJU_P1 (Delta Junction)

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

Flown: 100% (9/9)  
Green: 100% (9/9)  
Yellow: 0% (0/9)  
Red: 0% (0/9)

D19|DEJU_P2 (Delta Junction)

<table>
<thead>
<tr>
<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% (10/10)  
Green: 100% (10/10)  
Yellow: 0% (0/10)  
Red: 0% (0/10)

D19|HEAL (Healy)

| 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 |

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

Weather Forecast

Fairbanks, AK (BONA)

<table>
<thead>
<tr>
<th>Day</th>
<th>Temperature</th>
<th>Weather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sat 7/22</td>
<td>85°</td>
<td>Mostly Sunny</td>
</tr>
<tr>
<td>Sun 7/23</td>
<td>89°</td>
<td>Partly Cloudy</td>
</tr>
<tr>
<td>Mon 7/24</td>
<td>88°</td>
<td>Mostly Sunny</td>
</tr>
<tr>
<td>Tue 7/25</td>
<td>85°</td>
<td>Partly Cloudy</td>
</tr>
<tr>
<td>Wed 7/26</td>
<td>80°</td>
<td>Partly Cloudy</td>
</tr>
<tr>
<td>Thu 7/27</td>
<td>79°</td>
<td>Mostly Cloudy</td>
</tr>
<tr>
<td>Fri 7/28</td>
<td>74°</td>
<td>AM Showers</td>
</tr>
</tbody>
</table>
Healy, AK (HEAL)

<table>
<thead>
<tr>
<th>Date</th>
<th>Temperature</th>
<th>Condition</th>
<th>Cloud Cover (%)</th>
<th>Chance of Precip. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sat 7/22</td>
<td>79°F</td>
<td>Partly Cloudy</td>
<td>0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Sun 7/23</td>
<td>80°F</td>
<td>PM</td>
<td>0.02 in</td>
<td>0.08 in</td>
</tr>
<tr>
<td>Mon 7/24</td>
<td>80°F</td>
<td>Mostly Sunny</td>
<td>0.08 in</td>
<td>0.32 in</td>
</tr>
<tr>
<td>Tue 7/25</td>
<td>76°F</td>
<td>Thunderstorms</td>
<td>0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Wed 7/26</td>
<td>72°F</td>
<td>Mostly Cloudy</td>
<td>0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Thu 7/27</td>
<td>72°F</td>
<td>Partly Cloudy</td>
<td>0 in</td>
<td>0 in</td>
</tr>
<tr>
<td>Fri 7/28</td>
<td>68°F</td>
<td>PM Showers</td>
<td>0 in</td>
<td>0.32 in</td>
</tr>
</tbody>
</table>

Source: wunderground.com

Flight Collection Plan for 22 July 2023

Flyority 1
Collection Area: Delta Junction (DEJU) – Priority Flight Box 1
Flight Plan Name: D19_DEJU_R1_P1_P2_v5_PRM.xml
On-Station Time: 10:20 L / 18:20 UTC

Flyority 2
Collection Area: Delta Junction (DEJU) – Priority Flight Box 2
Flight Plan Name: D19_DEJU_R1_P1_P2_v5_PRM.xml
On-Station Time: 10:20 L / 18:20 UTC

Flyority 3
Collection Area: Caribou Creek – Poker Flats Watershed (BONA)
Flight Plan Name: D19_BONA_C1_P1_v1_PRM.xml
On-Station Time: 10:30 L / 18:30 UTC

Flyority 4
Collection Area: Healy (HEAL)
Flight Plan Name: D19_HEAL_R3_P1_v1_PRM.xml
On-Station Time: 10:30 L / 18:30 UTC

Crew: Abrajam (Lidar), Cameron (NIS)