Payload 1 Daily Flight Report

Date: 2022-09-05
Flight Campaign ID: P1C1
Airport, FBO ID, City: Tucson International Airport - Tucson, AZ, Las Cruces International Airport (KLRU) - Las Cruces, NM
Aircraft: N331AR

Domain: 14 (Desert Southwest)
Sites Flown: JORN_P1 (Jornada Priority 1), JORN_P2 (Jornada Priority 2)
Days left in Domain: 6

Report Author: Abe
Lidar Operators: Abe
Spectrometer Operators: Elissa
Pilots: Magnus, Steven
GPS Instruments: 04 - FBO_KTUS, AOP-JORN

Flight Hours: 01:44:00, 04:46:00, 01:25:00
Hours until maintenance: 25.85

Summary
The crew again took to the sky at the crack of dawn this morning to fly the JORN site. The sky was completely clear allowing the crew to finish the JORN P1 box in green, and begin to green up the P2 box. 24 lines were completed in the P1 Box and 8 in the P2 box.

Concerns
- The extraction of yesterday's flight was still extracting the first waveform disc more than 14 hours after starting. The extended extraction led to a error in troubleshooting and necessitated a restart of the extraction. This will put us several days behind in extractions.
- The UPDU during our last fuel stop in Las Cruces was at 49deg. The crew decided to end the POS to avoid losing it if the UPDU shut down at 50deg. There was a CORS station within 20km.

Comments
None

Daily Coverage

<table>
<thead>
<tr>
<th>D14</th>
<th>JORN_P1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line #</td>
<td>2</td>
</tr>
<tr>
<td>Lidar</td>
<td>✓</td>
</tr>
<tr>
<td>Spectrometer</td>
<td>✓</td>
</tr>
<tr>
<td>Camera</td>
<td>✓</td>
</tr>
<tr>
<td>Cloud Cover</td>
<td>✓</td>
</tr>
</tbody>
</table>

Estimated Cloud Cover Key

Green: 0-10%
Yellow: 11-50%
Red: >50%
<table>
<thead>
<tr>
<th>Line #</th>
<th>31</th>
<th>32</th>
<th>33</th>
<th>34</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: 24

D14 | JORN_P2

<table>
<thead>
<tr>
<th>Line #</th>
<th>36</th>
<th>37</th>
<th>38</th>
<th>39</th>
<th>40</th>
<th>41</th>
<th>42</th>
<th>43</th>
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<tbody>
<tr>
<td>Lidar</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Spectrometer</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>
</tr>
<tr>
<td>Cloud Cover</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
</tbody>
</table>

Total number of lines flown: 8

Flight Screenshots

Cumulative Domain Coverage

D14 | JORN_P1 (Jornada Priority 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>
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<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
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<tbody>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
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<td>30</td>
<td>31</td>
<td>32</td>
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<td>34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Flown: 100% (34/34)
Green: 100% (34/34)
Yellow: 0% (0/34)
Red: 0% (0/34)

D14 | JORN_P2 (Jornada Priority 2)

| 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

Flown: 100% (21/21)
Green: 43% (9/21)
Yellow: 57% (12/21)
Red: 0% (0/21)
D14|N14A (D14 Nominal Runway)

Flown: 0% (0/1)
Green: 0% (0/1)
Yellow: 0% (0/1)
Red: 0% (0/1)

D14|SRER_P1 (Santa Rita Experimental Range Priority 1)

Flown: 100% (40/40)
Green: 98% (39/40)
Yellow: 2% (1/40)
Red: 0% (0/40)

D14|SRER_P2 (Santa Rita Experimental Range Priority 2)

Flown: 0% (0/24)
Green: 0% (0/24)
Yellow: 0% (0/24)
Red: 0% (0/24)

D14|SRER_P3 (Santa Rita Experimental Range Priority 3)

Flown: 0% (0/26)
Green: 0% (0/26)
Yellow: 0% (0/26)
Red: 0% (0/26)

Weather Forecast
Tucson, AZ

<table>
<thead>
<tr>
<th>Tue 9/6</th>
<th>Wed 9/7</th>
<th>Thu 9/8</th>
<th>Fri 9/9</th>
<th>Sat 9/10</th>
<th>Sun 9/11</th>
<th>Mon 9/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>104°F</td>
<td>102°F</td>
<td>99°F</td>
<td>93°F</td>
<td>93°F</td>
<td>95°F</td>
<td>96°F</td>
</tr>
<tr>
<td>Sunny</td>
<td>Mostly Sunny</td>
<td>Cloudy</td>
<td>Cloudy</td>
<td>PM Thunderstorms</td>
<td>Partly Cloudy</td>
<td>Partly Cloudy</td>
</tr>
</tbody>
</table>

0 in | 0 in | 0 in | 0 in | 0 in | 0 in | 0 in | 0 in
Flight Collection Plan for 6 September 2022

Flyority 1
Collection Area: Santa Rita Experimental Range (SRER) – Priority 2 Box
Flight Plan Name: D14_SRER_C1_P1_v6_PRM.xml
40° On-station Time: 16:20 UTC / 09:20 MST

Flyority 2
Collection Area: Santa Rita Experimental Range (SRER) – Priority 3 Box
Flight Plan Name: D14_SRER_C1_P1_v6_PRM.xml
40° On-station Time: 16:20 UTC / 09:20 MST

Flyority 3 *(if green)*
Collection Area: Jornada (JORN) – Priority 2 Flight Box
Flight Plan Name: D14_JORN_R1_P1_v5_PRM.xml
35° On-station Time: 15:40 UTC / 09:40 MDT / 8:40 MST

Flyority 4
Collection Area: Nominal Runway – D14
Flight Plan Name: D14_N14A_Nominal_Runway_Test_v1_PRM
On-station Time: N/A

Crew: Elissa, Abe