Payload 2 Daily Flight Report

Date: 2020-08-07
Flight Campaign ID: P2C1
Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO

Domain: 13 (Southern Rockies & Colorado Plateau)
Sites Flown: NIWO (Niwot Ridge Mountain Research Station), WLOU (West St. Louis Creek)
Days left in Domain: 4

Report Author: Robb Walker
Lidar Operators: Robb Walker
Spectrometer Operators: Ivana Vu
Pilots: Justin Eddington, Stephen Brawders
Ground Crew: Michael Wussow
Flight Hours: 03:06
Hours until maintenance: 28.43
GPS Instruments: 01 - WLOU, 05 - NIWO, AOP_KBDU

Summary
Payload 2 crew woke to clear skies this morning, completing NEON science flights in D13 pending review of data. Focus will now shift to calibration and engineering test flights going forward.

Concerns
None

Comments
Digitizer was cycled several times before re-flight of WLOU lines, but unsuccessful in bringing waveform pulse visual online.

Daily Coverage

Estimated Cloud Cover Key

<table>
<thead>
<tr>
<th>Green: 0-10%</th>
<th>Yellow: 11-50%</th>
<th>Red: &gt;50%</th>
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D13|NIWO

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<tr>
<th>Line #</th>
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<tbody>
<tr>
<td>Lidar</td>
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<td>Cloud Cover</td>
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Total number of lines flown: 14
Line # | 10 | 11 | 12 | 13 | 14
--- | --- | --- | --- | --- | ---
Lidar | ✓ | ✓ | ✓ | ✓ | ✓
Spectrometer | ✓ | ✓ | ✓ | ✓ | ✓
Camera | ✓ | ✓ | ✓ | ✓ | ✓
Cloud Cover | | | | | 

Total number of lines flown: 5

Flight Screenshots

Lidar (NIWO)

NIS (NIWO)

Lidar (WLOU)

NIS (WLOU)

Cumulative Domain Coverage

D13 NIWO (Niwot Ridge Mountain Research Station)
Food: 100% (52/52)
Green: 100% (52/52)
Yellow: 0% (0/52)
Red: 0% (0/52)

D13 | WLOU (West St. Louis Creek)
Food: 100% (14/14)
Green: 100% (14/14)
Yellow: 0% (0/14)
Red: 0% (0/14)

Weather Forecast
Boulder, CO (Calibration)

Greeley, CO (Boresight)

Nunn, CO (CPER)

Flight Collection Plan for 08 August 2020

Flyority 1
Collection Area: Radiometric Calibration at Table Mountain
Flight Plan Name: D10_R10A_Radiometric_Calibration_Table_Mountain_v1.pln
On-station Time: 0950 – 1620 Local / 1550 – 2220 UTC

Flyority 2
Collection Area: Boresight Calibration – Geo-calibration at Greeley
Flight Plan Name: D10_B10B_Greeley_Boresight_Geocalibration_Plan_v8.pln
On-station Time: 0900 – 1710 Local / 1500 – 2310 UTC

Flyority 3
Collection Area: Nominal Runway
Flight Plan Name: D10_N10C_Nominal_Runway_Test_v8.pln

Flyority 4
Collection Area: Wiggle Timing Test
Flight Plan Name: D10_W10B_Wiggle_Test_v6.pln
Flyority 5
Collection Area: NEON HQ LIDAR Validation
Flight Plan Name: D10_H10B_HQ_LIDAR_validation_v1.pln

Flyority 6
Collection Area: NIS Offset Flight
Flight Plan Name: D10_O10A_NIS_Offset_v1.pln
On-station Time: 0930 – 1650 Local / 1530 – 2250 UTC

Flyority 7
Collection Area: Satellite Overpass Coincident Collection
Flight Plan Name: D10_CPER_C1_P1_v4.pln
On-station Time: 0950 – 1620 Local / 1550 – 2220 UTC

Flyority 8
Collection Area: D10 BRDF Flight – Central Plains Ecological Range
Flight Plan Name: D10_F10A_BRDF_v1.pln
On-station Time: 0950 – 1620 Local / 1550 – 2220 UTC
Crew members: Ivana (Lidar), Mike (NIS), John (Ground); Dave and Robb (Tarps)

Flight Collection Plan for 09 August 2020
Flyority: Same as previous day
Crew members: Mike (Lidar), Ivana (NIS), John (Ground); Tristan and Alok (Tarps)