



March 23, 2018 Payload 3 Daily Flight Report



Date: 03-23-18

Flight Campaign ID: 2018_P3C1

Airport, FBO ID, City: Boulder Municipal Airport (KBDU) – Boulder, CO

Domain: 10

Sites Flown: B10D Greeley Boresite

Days left in Domain: 10

Report Author: Michael Wussow

Flight Crew: Cam Chapman, Matt Devoe, Michael Wussow

Ground/GPS Crew: Mitch Haynes, Abe Morrison

Pilots: Stephen Brawders, Mike Francis

Additional Personnel: None

GPS Instruments: GPS01-FBO_KBDU, U-CHLL

Flight Hours: 1:27

Hours until aircraft maintenance: 114.88

Summary: With clear conditions to the east of Boulder in the morning, the Greeley Boresite Calibration flight was attempted. Approximately half of the survey box was completed until clouds and wind became a factor. The flight was terminated due to the concern of high winds at KBDU. Also, clouds developed throughout the flight pushing the conditions past 50% cloud cover which is the maximum for this calibration flight.

New Faults:

Hotel Kit – Data extraction is currently on hold as Flight Ops waits for update on status of extraction code changes

Ongoing Faults:

Flight Disks – On Disk Set 3, previous flight data on Midas1 disk could not be deleted due to “folder permission errors”. Due to the current shortage of flight disks, disk set 3 was used for flight 2018032218, which two flights worth of data now recorded on Midas1

Flight Plans – Laser settings on new V10C flight plan provided for flight 2018032218 were wack (see screenshot of lidar returns). Crew reverted to older V10C flight plan.

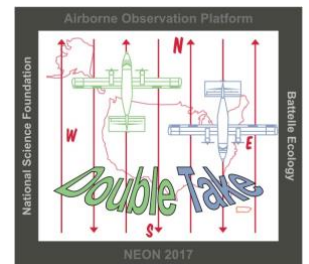
Flight Plans – All 2018 Riegl flight plan kml’s do not load markers onto DCC software. Newly created flight plan kmls did not resolve the issue.

Lidar – Error message on RiAcquire “LASER_HEARTBEAT_TIMEOUT_EXPIRED” and corresponding visible gaps in swath happened for second day in a row. Believed to be related to lost connection with scanner.

Flight Disks - MIDAS disks from Disk Set 2 were not recognized by MIDAS computer during system startup.

Lidar – Remote Desktop to RiAcquire lost connection several times in-flight. Issue is believed to be isolated to the Ethernet connection. New Ethernet cable attached on 2018-03-22, but same issues occurred. FltOps is actively exploring the possibility on reattaching the external monitors. On flight 2018032314 there were no lost connections during flight or on ground. Issue will continue to be monitored.

Spectrometer – Shutter on NIS not closed at request of the lab manager due to a known malfunction



Resolved Faults:

Flight Plans – Lidar swath overlap issue appears resolved with proper DEMs in place. Same lines from V10C where gaps were evident during yesterday's flight provided ample swath coverage today.

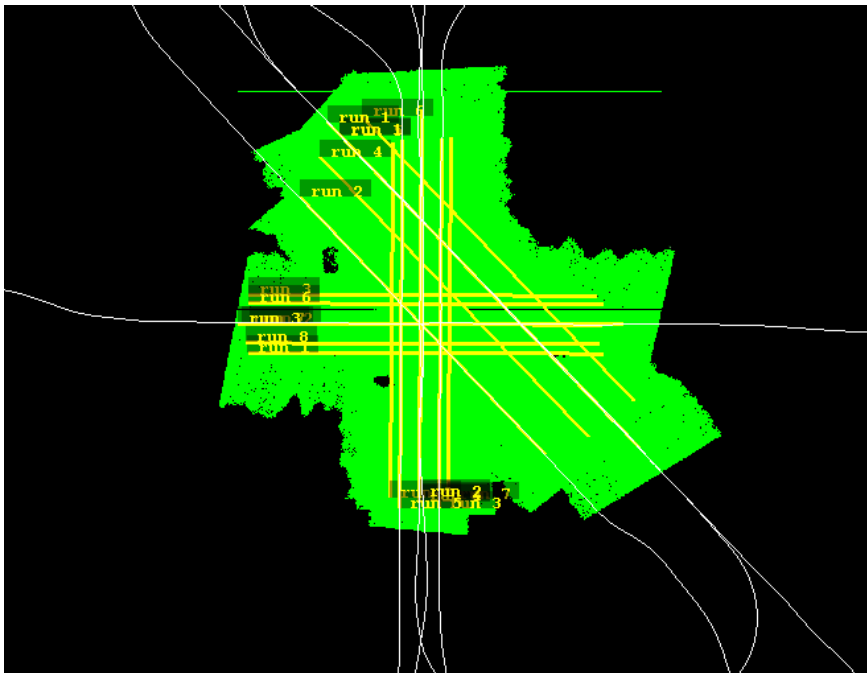
Other Issues & Concerns: None

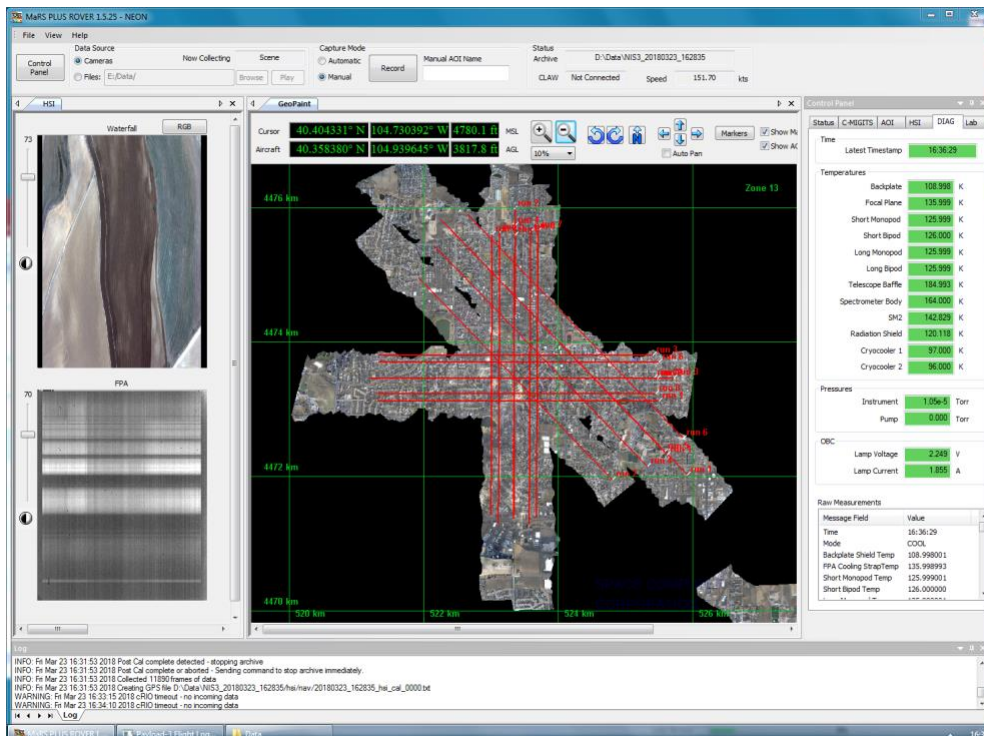
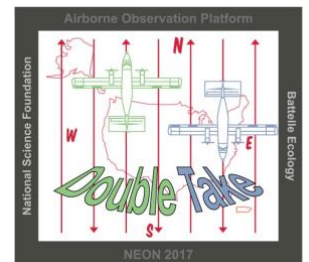
Comments:

- Matt completed NIS re-certification flight
- Mike completed first Riegl Lidar flight as an observer
- Mitch completed Ground re-certification
- With snow in the forecast for early next week and the Otter scheduled to depart for D17 on Friday, 3/30, FltOps will conduct flights on Saturday to take advantage of better weather.
- The location and generation of the decimated LAS files was not investigated after this flight as the status of updates on the Hotel Kit is unknown and FltOps does not want to delay progress on Hotel Kit code by processing this training flight

Flight Screenshots:

Greeley Bore site B10D – Lidar and NIS Screenshots





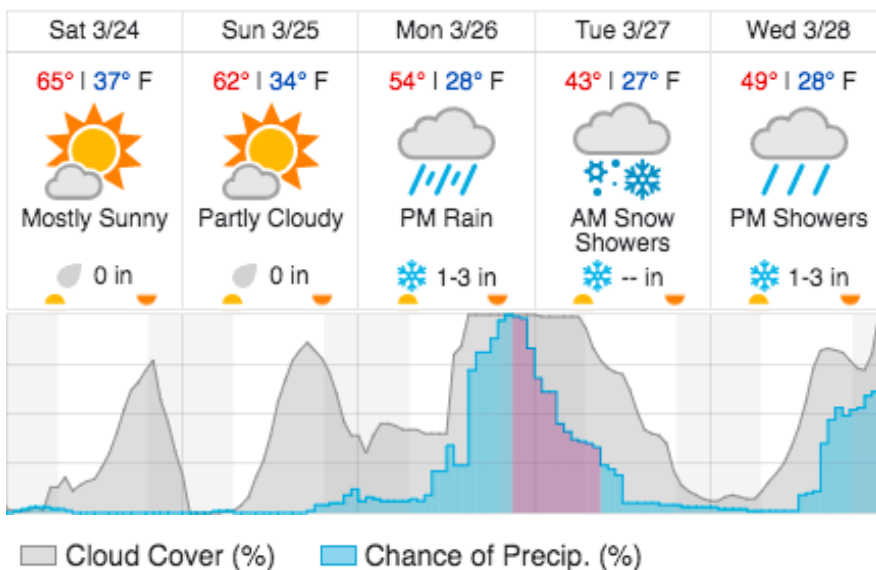
Daily Domain Coverage: N/A

Cumulative Domain Coverage:

Calibration Flights Completed: Nominal Runway Survey, NEON HQ Lidar Validation

Not Complete: Greeley Boresight, Wiggle Timing Test, Table Mountain Radiometric, NIS Offset Flight

Weather Forecast:





Flight Collection Plan for 24 March 2018

Flyority 1

Collection Area: Greeley Boresight Calibration

Flight Plan Name: D10_B10D_Boresight_Apx_Q780.rpp

On Station Time: 1550 Local / 0950 UTC (30°)

Flyority 2

Collection Area: Table Mountain Radiometric Calibration

Flight Plan Name: D10_R10C_Rad_Cal_TMBT_v1_Q780.rpp

On Station Time: 1740 Local / 1140 UTC (45°)

Flyority 3

Collection Area: Wiggle Timing Test at Boulder Airport

Flight Plan Name: D10_W10C_Wiggle_Test_v5_Q780.rpp

On Station Time: 1550 Local / 0950 UTC (30°)

Flyority 4

Collection Area: NIS Offset Flight

Flight Plan Name: D10_O10B_NIS_Offset_v2_Q780.rpp

On Station Time: 1700 Local / 1100 UTC (40°)

Flight 1 - Mitch (Lidar), Cam (NIS Recert), Robb (NIS observe), Ivana (Ground recert), Mike (Ground Certifier)

Flight Collection Plan for 25 March 2018

No flights scheduled

