March 30, 2018 Payload 3 Daily Flight Report

Date: 03-30-18
Flight Campaign ID: 2018_P3C1
Airport, FBO ID, City: Fresno International Airport (KFAT) – Fresno, CA

Domain: 17
Sites Flown: Transit (KBDU to KPUC to KSGU to KFAT)
Days left in Domain: 5

Report Author: Mitch Haynes
Flight Crew: Mitch Haynes
Ground/GPS Crew: Michael Wussow
Pilots: Stephen Brawders, Mike Francis
Additional Personnel: Cameron Chapman, Robb Walker

GPS Instruments: None
Flight Hours: 2:10 + 1:31 + 2:27
Hours until aircraft maintenance: 103.52

Summary
Crew successfully transited the Otter from Boulder to Fresno in preparation for the start of D17 surveys over the San Joaquin Experimental Range.

Concerns
No new concerns

Comments

- No significant rise in spectrometer chamber pressure occurred during the transit to Fresno
- AOP GPS 02 was set up at the KFAT FBO
- The Railroad Valley Calibration survey originally scheduled for the return transit from Fresno to Boulder has been canceled.

New Issues:
- None

Ongoing Issues:
- Spectrometer – 20180329 Pressure loss on the NIS, possibly due to a bad seal. Ian Crocker cut the strap holding the getter in hopes of reducing vibration from the PIM. Flight crew will monitor during transit. PL3 vacuum pump will be shipped to D17 if needed. 20180330 No significant pressure loss occurred during the transit to D17
- RiAcquire – 20180324 Received several ‘INS-GPS 1’ errors on RiAcquire that don’t look familiar (see screenshot below). Will investigate to see what these errors mean and why they’re being received.
- Hotel Kit 3 – 20180324 SBET plots are failing to generate in QAQC. Extractions otherwise occurring properly.
- Database – 20180324 Flight lines from Lidar logs not being placed in PDF logs, only CSV.
- Lidar – 20180327 “LASER_HEARTBEAT_TIMEOUT_EXPIRED” and corresponding visible gaps in swath error occurred when RDP lost connection twice. 20180324 Error occurred on one line. 20180323 Same error occurred. 20180322 Error occurred again, believed to be related to lost connection with scanner. 20180321
Ongoing Issues (continued):
- Error message on RiAcquire. “LASER_HEARTBEAT_TIMEOUT_EXPIRED” and corresponding visible gaps in swath
- Spectrometer – 20180319 Shutter on NIS not closed at request of the lab manager due to a known malfunction

Resolved Issues
- Telemetry - Grafana Dashboard, 20180324 No Environmental Pressure and Humidity Readings being received, even after reset. 20180330 Hard Reset conducted on the ground fixed the solution. Readings continue to be read successfully
- Flight Disks – 20180321 MIDAS disks from Disk Set 2 were not recognized by MIDAS computer during system startup. Disk set has been removed from rotation till issue is resolved. 20170327 Set 2 disks were tried again today after receiving replacements, could not read MIDAS 1 Disk. 20180330 Flight disk set 2 was returned and tested again and this time successfully recognized

Pictures

Saying goodbye to the Rockies and Colorado
Top Left: Zion National Park, Utah
Top Right: Valley of Fire State Park, Nevada
Bottom: Badwater Basin (Lowest Point in North America at -282 ft below sea level), Death Valley, CA
Above: Only 85 miles NW of Badwater Mount Whitney, CA (Highest point in the lower 48 states at 14505 ft.)
Below: Goodbye Rockies, Hello Sierras!
**Weather Forecast**

Fresno, CA

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**Flight Collection Plan for 31 March 2018**

**Flyority 1**

Collection Area: San Joaquin Experimental Range
Flight Plan Name: D17_SJER_C1_P1_v3_Q780
On Station Time: 1020 Local / 1720 UTC (40°)

**Crew:** Michael Wussow (Lidar), Cameron Chapman (Trainer), Robb Walker (NIS), Mitch Haynes (Ground)