



Payload 1 Daily Flight Report



Date: 2026-08-23

Flight Campaign ID: P1C1

Airport, FBO ID, City: Tucson International Airport (KTUS) - Tucson, AZ; Four Corners Regional Airport (KFMN) - Farmington, NM; Boulder Municipal Airport (KBDU) - Boulder, CO

Aircraft: N537AR

Domain: 00 (Training & Calibration)

Sites Flown: Transit ()

Days left in Domain: 0

Report Author: Elissa

Lidar Operators: Elissa **Flight Hours:** 02:02:00, 01:53:00

Spectrometer Operators: **Hours until maintenance:** 112.77

Pilots: Troy, Jonathan

Ground Crew: John, Matt

Summary

After leaving the spectrometer on the vacuum pump overnight with no improvement in chamber pressure, the decision was made to return to the lab in Boulder. While the intention was to leave the system on the pump during the transit, multiple factors conspired against this.

Concerns

Pump 1, which we had with us in the field, seems to function weakly and intermittently. When switched from shore to payload power, the pump failed to get anywhere near low enough in pressure to be effective.

Additionally, the mid-day departure from Tucson put substantial afternoon thunderstorm activity on our route to Boulder. There was no way to avoid an IFR transit, which would have prohibited use of the vacuum pump anyway.

Comments

Once back in Boulder, the system was placed on a different vacuum pump, and may now continue to pump down while slowly warming.

Flight Collection Plan for 24 August 2026

No flights planned; Lab troubleshooting and diagnosis.

Crew: Elissa, Alyssa