

## Payload 2 Daily Flight Report

**Date:** 2025-08-22

**Flight Campaign ID:** P2C1

**Airport, FBO ID, City:** Nashua Airport (KASH) - Nashua, NH

**Aircraft:** N615AR

**Domain:** 01 (Northeast)

**Sites Flown:** None

**Days left in Domain:** 17

**Report Author:** Elissa

**Lidar Operators:** Elissa

**Flight Hours:** 00:00

**Spectrometer Operators:** Mitch

**Hours until maintenance:** 24.58

**Pilots:** Justin, Mac

### Summary

With several hours of green conditions forecast at HARV this morning, we mobilized for another flight. However upon arriving at the plane we found the ion pump arcing, and chamber pressure and temperature both out of spec. The issue was not resolved in time to take advantage of the collection opportunity.

### Concerns

NIS failure to hold pressure; possible leak most likely in manifold.

### Comments

- System was put on the vacuum pump, which quickly got the chamber back into spec. However, the chamber pressure quickly increased as soon as it was isolated from the pump/getter/manifold.
- Getter was isolated and does not appear to be the source of the leak.
- Manifold was isolated and leak tested, and a possible leak was detected.
- Getter was re-activated, heating for 2.5 hours instead of one to account for suspected saturation. It was hoped that this would resolve the arcing issue, but it was not successful. The ion pump is currently unusable.
- Temporary workaround is to leave the chamber on the getter without using the ion pump. The vacuum pump can be left on in between flights. This should be sufficient to maintain adequately low chamber pressure for short periods of time.
- Replacement ion pump and getter are being shipped to the domain.

## Cumulative Domain Coverage

### Estimated Cloud Cover Key

Green:	Yellow:	Red:
0-10%	11-50%	>50%

Solar Angle Less Than 40 degrees: (\*)

### D01 | BART (Bartlett Experimental Forest)

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36						

Flown: 100% (35/35)

Green: 100% (35/35)

Yellow: 0% (0/35)

Red: 0% (0/35)

\* Flown within 35deg solar angle

### D01 | HARV\_P1 (Harvard Forest Priority 1)

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
22	23	24	25	26	27	28	29												

Flown: 0% (0/28)

Green: 0% (0/28)

Yellow: 0% (0/28)

Red: 0% (0/28)

\* Flown within 35deg solar angle

### D01 | HARV\_P2 (Harvard Forest Priority 2)

31	32	33	34	35	36	37
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Flown: 0% (0/7)

Green: 0% (0/7)

Yellow: 0% (0/7)

Red: 0% (0/7)

\* Flown within 35deg solar angle

### D01 | HOPB (Hop Brook)

2	3	4	5	6	7	8	9	10
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Flown: 0% (0/9)

Green: 0% (0/9)

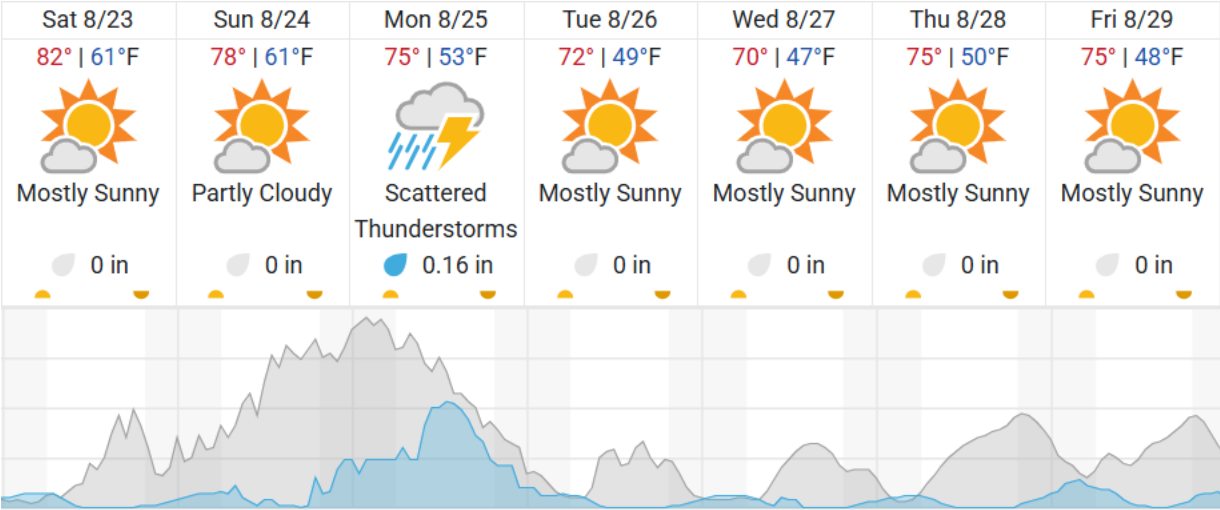
Yellow: 0% (0/9)

Red: 0% (0/9)

\* Flown within 35deg solar angle

Weather Forecast

Petersham, MA (HARV)



source: wunderground.com

Flight Collection Plan for 23 August 2025

Flyority 1  
Collection Area: Harvard Forest (HARV) – Priority 1 Flight Box  
Flight Plan Name: D01\_HARV\_C1\_P1\_P2\_v5\_VQ780  
On-Station Time: 1350 UTC / 0950 L

Flyority 2  
Collection Area: Hop Brook (HOPB)  
Flight Plan Name: D01\_HOPB\_A1\_P1\_v3\_VQ780  
On-Station Time: 1350 UTC / 0950 L

Flyority 3  
Collection Area: Harvard Forest (HARV) – Priority 2 Flight Box  
Flight Plan Name: D01\_HARV\_C1\_P1\_P2\_v5\_VQ780  
On-Station Time: 1350 UTC / 0950 L

Crew: Mitch (Lidar), Mike (NIS)