



## Payload 1 Daily Flight Report



**Date:** 2024-08-14

**Flight Campaign ID:** P1C1

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

**Aircraft:** N615AR

**Domain:** 01 (Northeast)

**Sites Flown:** HARV\_P2 (Harvard Forest Priority 2), N01A (D01 Nominal Runway )

**Days left in Domain:** 24

**Report Author:** Cameron

**Lidar Operators:** Cameron

**Flight Hours:** 01:39

**Spectrometer Operators:** Elissa

**Hours until maintenance:** 65.88

**Pilots:** Justin, Jacob

**GPS Instruments:** AOP\_HARV

### Summary

Morning conditions were clear with light ground-level haze. The crew departed for the HARV site. Upon arrival, visibility was significantly reduced due to a denser haze/smoke layer. Developing cumulus and cirrus clouds elevated the cloud coverage to 'yellow' science sky conditions. Consequently, we prioritized the lower priority flight box at HARV and the Nominal Runway flight plan.

### Concerns

- The FBO GPU exhibited slight power fluctuations which temporarily caused the UPS batteries to drain. We will continue to monitor.

### Comments

- The digitizer seemed to have a slight connectivity issues / lag upon startup however no issues occurred during flight.

### Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

Line #
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D01|HARV\_P2

Line #	30	31	32	33	34	35	36	37
Lidar	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer		✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover								

Total number of lines flown: 8

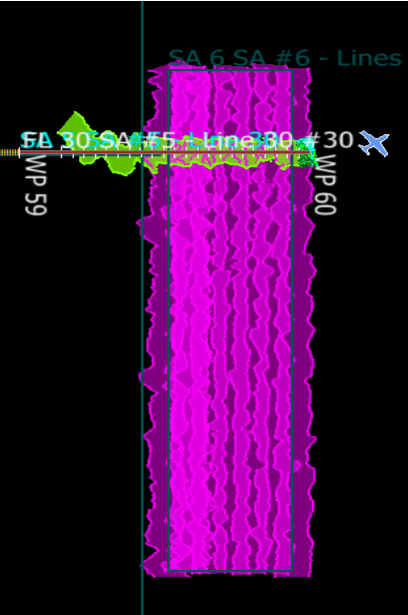
D01|N01A

Line #	1	2
Lidar	✓	✓
Spectrometer	✓	✓
Camera	✓	✓
Cloud Cover		

Total number of lines flown: 2

Flight Screenshots

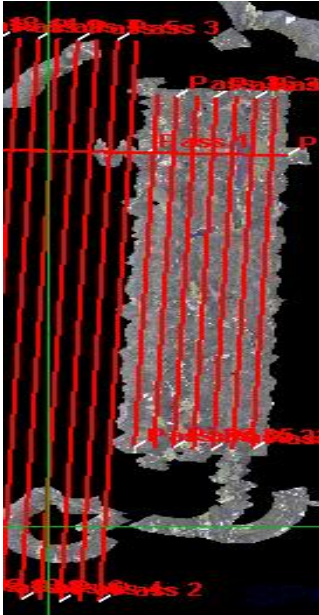
LIDAR SWATH HARV\_P2



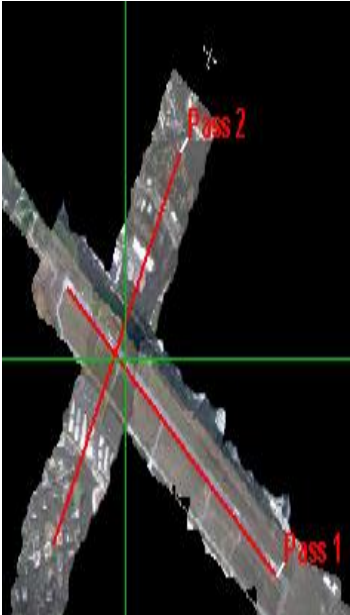
LIDAR SWATH N01A



NIS GEO-PAINT HARV\_P2



NIS GEO-PAINT N01A



Pictures: None

Cumulative Domain Coverage

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: 0% (0/35)  
Green: 0% (0/35)  
Yellow: 0% (0/35)  
Red: 0% (0/35)

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)

D01|HARV\_P2 (Harvard Forest Priority 2)

31	32	33	34	35	36	37
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Flown: 100% (7/7)

Green: 0% (0/7)  
Yellow: 100% (7/7)  
Red: 0% (0/7)

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)

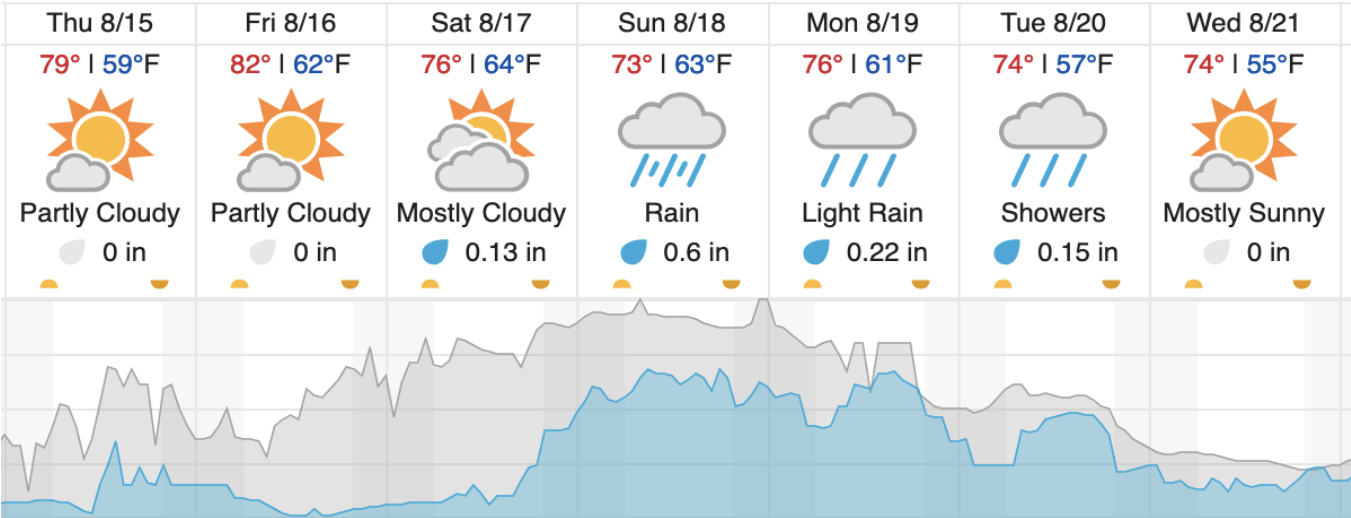
D01 | N01A (D01 Nominal Runway )

1	2
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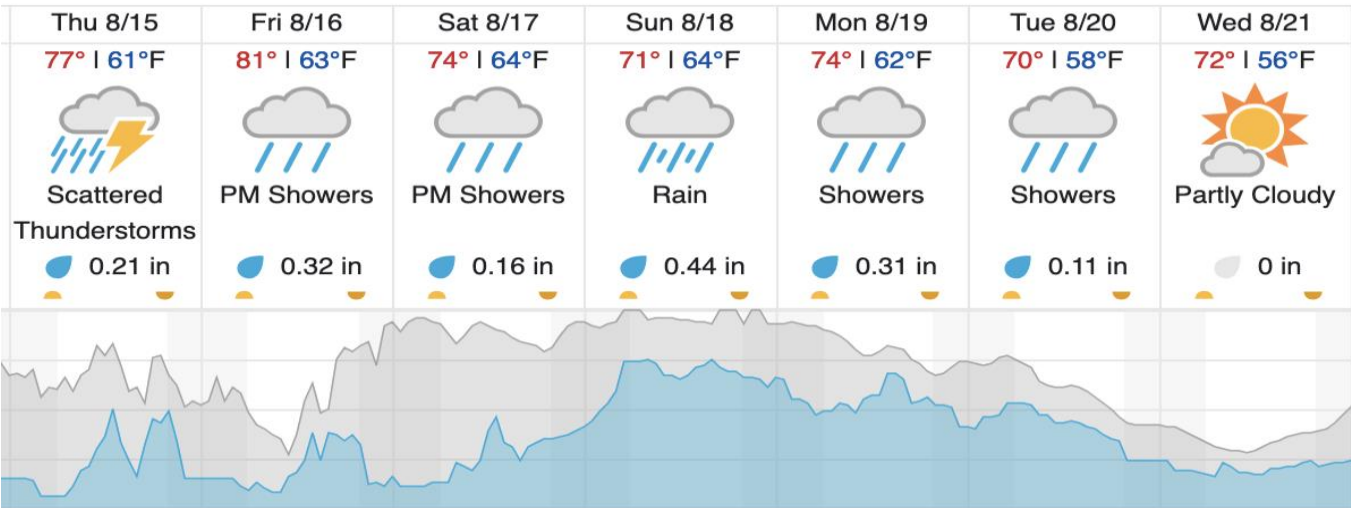
Flown: 100% (2/2)  
Green: 0% (0/2)  
Yellow: 100% (2/2)  
Red: 0% (0/2)

Weather Forecast

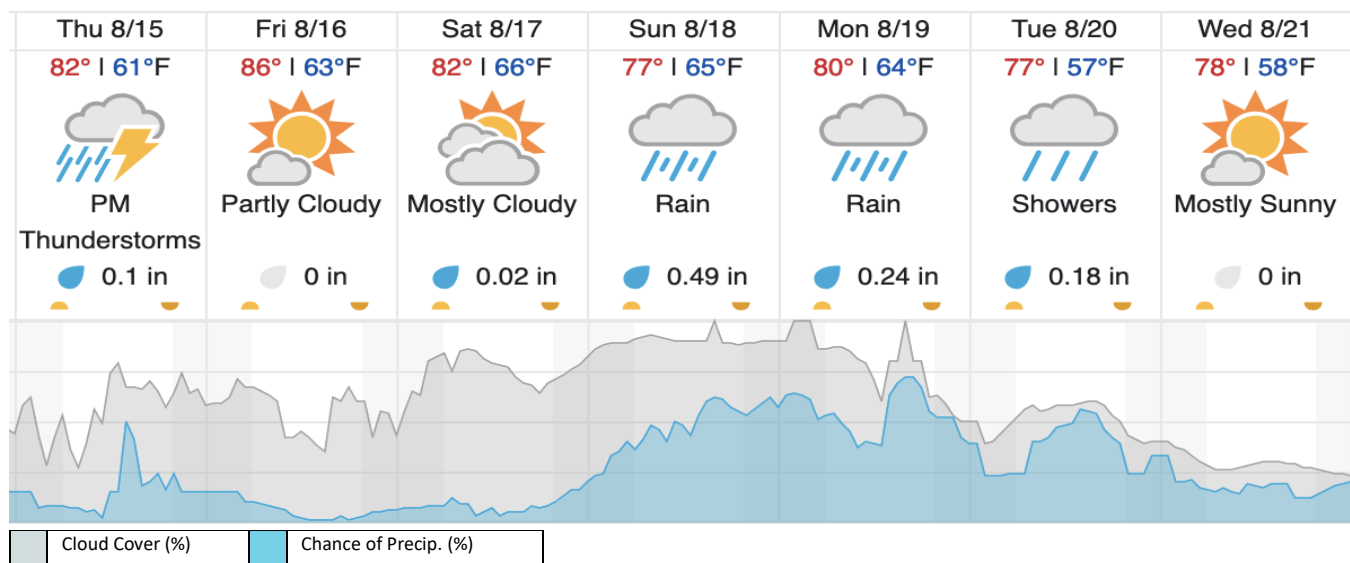
Petersham, MA (HARV)



Bartlett, NH (BART)



Nashua, NH (KASH)



source: wunderground.com

### Flight Collection Plan for 15 August 2024

#### Flyority 1:

Collection Area: Harvard Forest – Priority 1 (HARV\_P1)

Flight Plan Name: D01\_HARV\_C1\_P1\_\_P2\_v4\_PRM.xml

On-station Time: 1350 UTC / 0950 L

#### Flyority 2:

Collection Area: Bartlett Experimental Forest (BART)

Flight Plan Name: D01\_BART\_R1\_P1\_v2\_PRM.xml

On-station Time: 1350 UTC / 0950 L

#### Flyority 3:

Collection Area: Hop Brook (HOPB)

Flight Plan Name: D01\_HOPB\_A1\_P1\_v2\_PRM.xml

On-station Time: 1350 UTC / 0950 L

#### Flyority 4: *(if green)*

Collection Area: Harvard Forest – Priority 2 (HARV\_P2)

Flight Plan Name: D01\_HARV\_C1\_P1\_\_P2\_v4\_PRM.xml

On-station Time: 1350 UTC / 0950 L

Crew: Elissa (Lidar), Cameron (NIS)