



September 2, 2018 Payload 2 Daily Flight Report



**Date:** 2018-09-02  
**Flight Campaign ID:** 2018\_P2C1  
**Airport, FBO ID, City:** Nashua Airport (KASH) - Nashua, NH

**Domain:** 01  
**Sites Flown:** HARV\_P1 (Harvard Forest Priority 1)  
**Days left in Domain:** 11

**Report Author:** Michael Wussow  
**Flight Crew:** Michael Wussow, Abe Morrison  
**Ground/GPS:** John Adler  
**Pilots:** Mike Francis, Gina Moore  
**Additional Personnel:** None  
**GPS Instruments:** 05 - FBO\_KASH, 06 - BART, 07 - HARV

**Flight Hours:** 03:31  
**Hours until maintenance:** 121.48

**Summary**

With conditions forecast to remain partly cloudy for the first half of this week, and a cold front and rain entering the picture in the latter half of the week, a flight was conducted under sub-optimal conditions over HARV Priority 1. Seventeen red lines were completed including the entire airshed. Also, the NEON UAV team completed multiple data acquisition flights over Harvard Forest in concert with the Twin Otter.

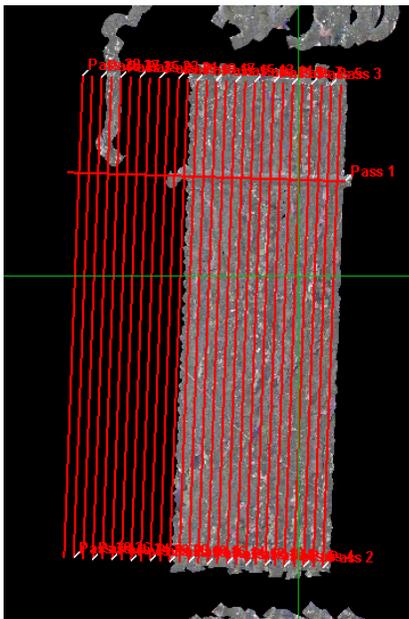
**Concerns**

None

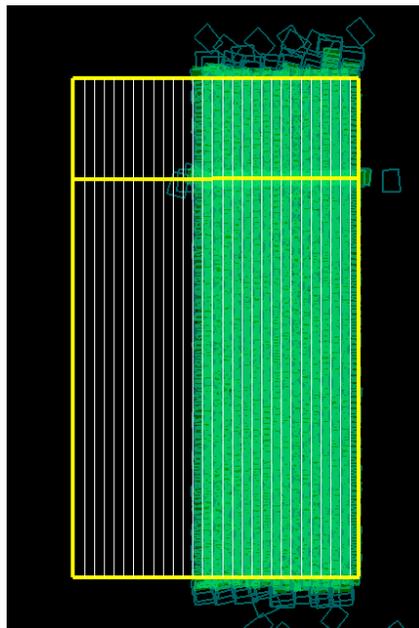
**Comments**

Two DJI M600 and two DJI M210 multi-spectral imaging flights were conducted as the Otter flew overhead at Harvard Forest. Data collected by the UAV's can be directly compared to the NEON imaging spectrometer data helping to determine the reliability of "off the shelf" spectrometers and viability of providing additional data-products.

**Flight Screenshots**



NIS -- LIDAR



Pictures



Dr. Adler with the M210 preparing for today's mission



Not a bad New England day, but high cirrus and haze occluded the sun from fully reaching the ground



NEON and Harvard Forest Towers pictured as specks in the bottom third of the photo

## Daily Coverage

D01 HARV_P1	Line	SpecG	SpecY	SpecR	NIS	Lidar	Camera	Cumulative
	1				✓	✓	✓	NLC
	2				✓	✓	✓	NLC
	3				✓	✓	✓	NLC
	4				✓	✓	✓	NLC
	5				✓	✓	✓	NLC
	6				✓	✓	✓	NLC
	7				✓	✓	✓	NLC
	8				✓	✓	✓	NLC
	9				✓	✓	✓	NLC
	10				✓	✓	✓	NLC
	11				✓	✓	✓	NLC
	12				✓	✓	✓	NLC
	13				✓	✓	✓	NLC
	14				✓	✓	✓	NLC
	15				✓	✓	✓	NLC
	16				✓	✓	✓	NLC
	17				✓	✓	✓	NLC
Flown:	17							

## Cumulative Domain Coverage

### BART

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	30	31	32	33	34	35	36				

Flown: 0% (0/36)  
 Green: 0% (0/36)  
 Yellow: 0% (0/36)  
 Red: 0% (0/36)

### HARV\_P1

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: 59% (17/29)  
 Green: 0% (0/29)  
 Yellow: 0% (0/29)  
 Red: 59% (17/29)

### HARV\_P3

1	2	3	4	5	6	7	8
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Flown: 100% (8/8)  
 Green: 0% (0/8)  
 Yellow: 0% (0/8)  
 Red: 100% (8/8)

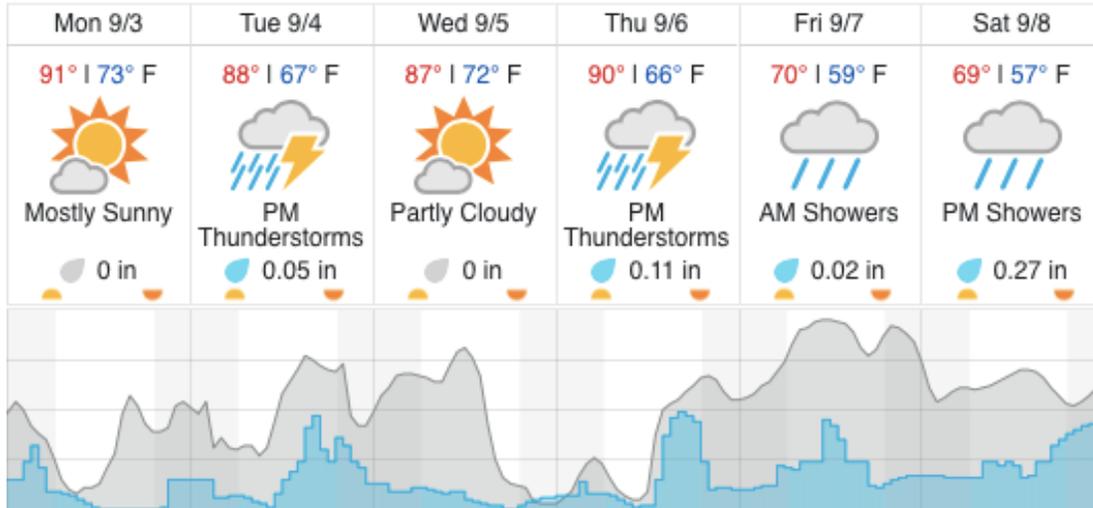
### N01A

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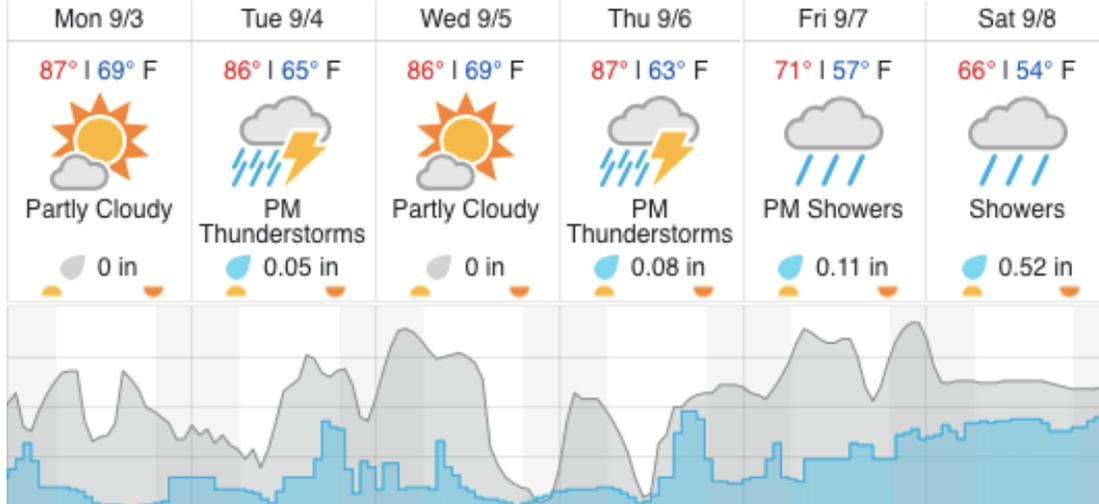
Flown: 100% (1/1)  
 Green: 0% (0/1)  
 Yellow: 0% (0/1)  
 Red: 100% (1/1)

## Weather Forecast

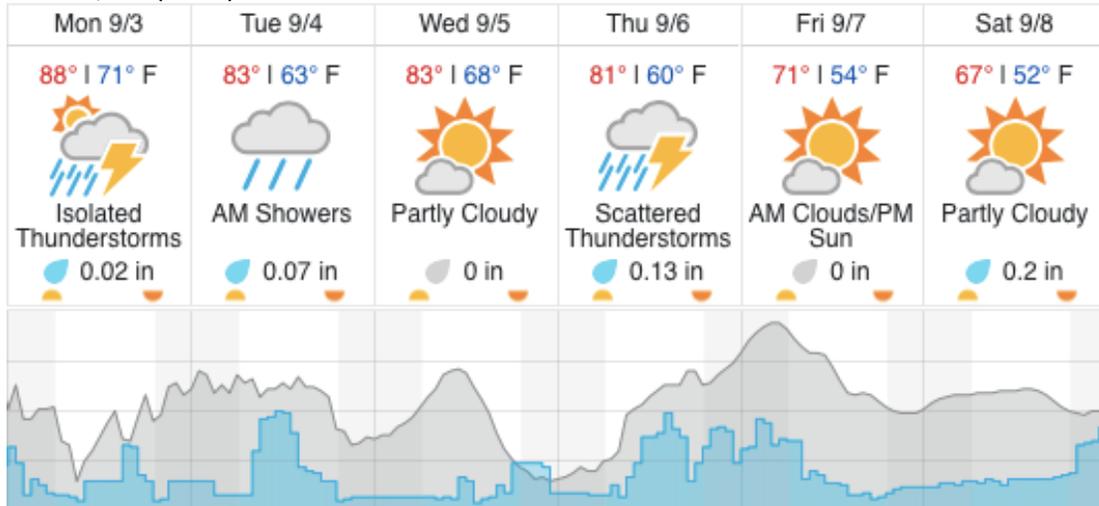
### Nashua, NH (FBO)



### Petersham, MA (HARV)



### Bartlett, NH (BART)



**Flight Collection Plan for 03 Sept 2018**

**Flyority 1:**

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

Flight Plan Name: D01\_HARV\_C1\_P1\_v1.pln

On-station Time: 1410 UTC / 1010 L

Lines 18-29, unless green conditions

**Flyority 2:**

Collection Area: Bartlett Experimental Forest (BART)

Flight Plan Name: D01\_BART\_R1\_P1\_v1.pln

On-station Time: 1410 UTC / 1010 L

**Flyority 3:**

Collection Area: Harvard Forest – Priority 2 (HARV\_P3)

Flight Plan Name: D01\_HARV\_C1\_P3\_v1.pln

On-station Time: 1410 UTC / 1010 L

\*Only if green conditions exist

**Crew:** Abe Morrison (Lidar), John Adler (NIS), Michael Wussow (Ground)