



## Payload 1 Daily Flight Report



**Date:** 2023-06-02

**Flight Campaign ID:** P1C1

**Airport, FBO ID, City:** Winchester Regional Airport (KOKV) - Winchester, VA, Roanoke-Blacksburg Regional (KROA) - Roanoke, VA

**Aircraft:** N331AR

**Domain:** 07 (Appalachians & Cumberland Plateau), 02 (Mid-Atlantic)

**Sites Flown:** MLBS (Mountain Lake Biological Station)

**Days left in Domain:** 19

**Report Author:** Cameron

**Lidar Operators:** Cameron

**Flight Hours:** 03:29:00, 01:13:00

**Spectrometer Operators:** Abe

**Hours until maintenance:** 30.10

**Pilots:** Justin, Will

**GPS Instruments:** 07 - FBO\_KOKV, AOP\_MLBS

### Summary

The crew took advantage of the good weather and collected 21 priority lines over MLBS before cumulus clouds developed at altitude pushing the sky conditions outside of nominal conditions. The crew landed at Roanoke Blacksburg airport for fuel prior to returning to Winchester.

### Concerns

- The NIS once again displayed the "Frame Grabber" error approximately 40 minutes into the transit to MLBS. The crew experimented with troubleshooting and discovered that cycling the FPIE switches on the NON-ECS resolved the issue without the need of completely restarting the NIS.

### Comments

- D02/07a Hg lamp test completed after today's flight.
- RAID 06 was shipped today.

### Daily Coverage

Estimated Cloud Cover Key

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

D07|MLBS

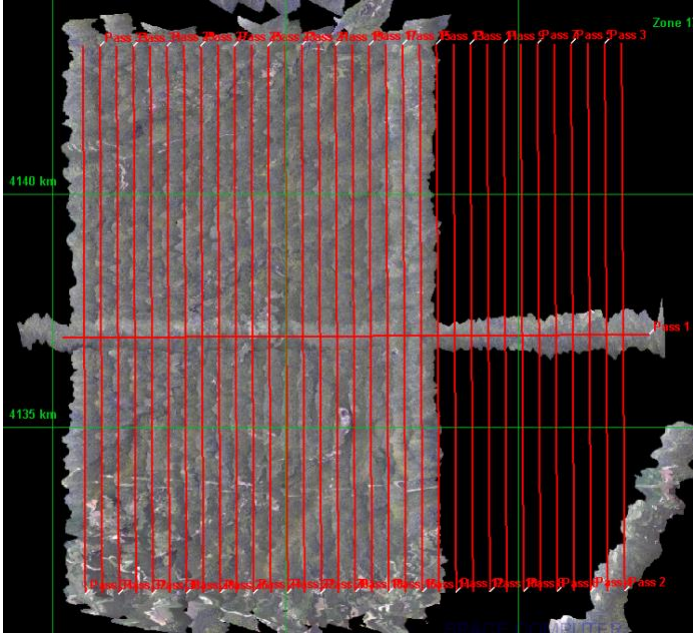
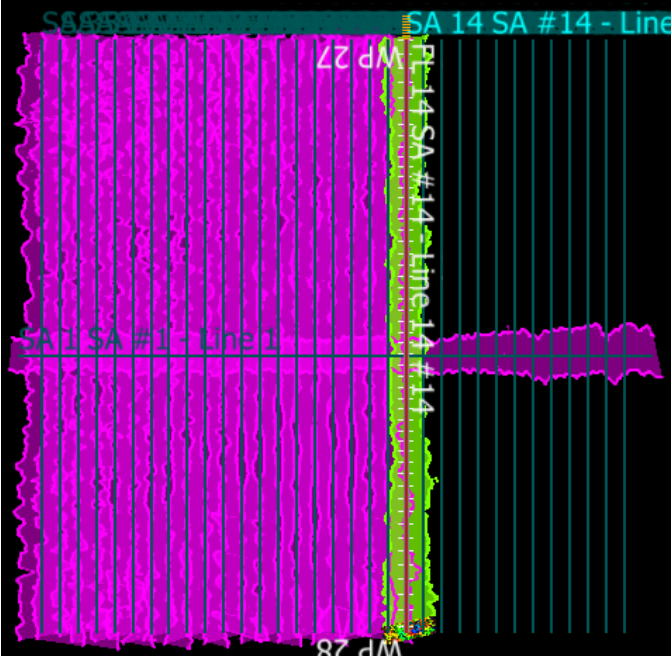
| Line #       | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Lidar        | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Spectrometer | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Camera       | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Cloud Cover  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|        |    |
|--------|----|
| Line # | 34 |
|--------|----|

|              |   |
|--------------|---|
| Lidar        | ✓ |
| Spectrometer | ✓ |
| Camera       | ✓ |
| Cloud Cover  |   |

Total number of lines flown: 21

Flight Screenshots



Pictures



Above: A view of MLBS during today’s flight.  
Below: A smoke layer was observed during today’s flight.



Cumulative Domain Coverage

D07 | MLBS (Mountain Lake Biological Station)

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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 |    |    |    |    |    |    |    |

Flown: 64% (21/33)  
Green: 64% (21/33)  
Yellow: 0% (0/33)  
Red: 0% (0/33)

D02 | BLAN (Blandy Experimental Farm)

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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 |    |    |    |    |    |    |    |    |

Flown: 0% (0/32)  
Green: 0% (0/32)  
Yellow: 0% (0/32)  
Red: 0% (0/32)

D02 | N02B (D02 Nominal Runway)

|   |
|---|
| 1 |
|---|

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

D02 | SCBI (Smithsonian Conservation Biology Institute)

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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 |    |    |    |    |    |    |    |    |    |

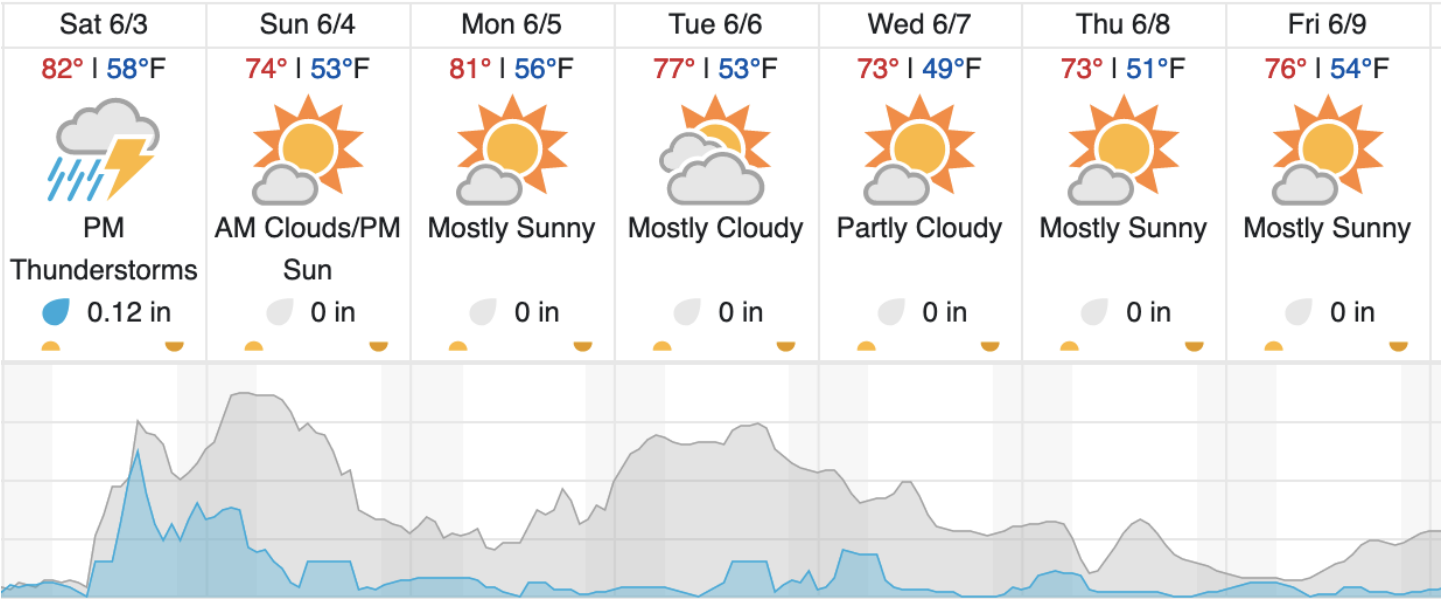
Flown: 0% (0/31)  
Green: 0% (0/31)  
Yellow: 0% (0/31)  
Red: 0% (0/31)

D02 | SERC (Smithsonian Ecological Research Center)

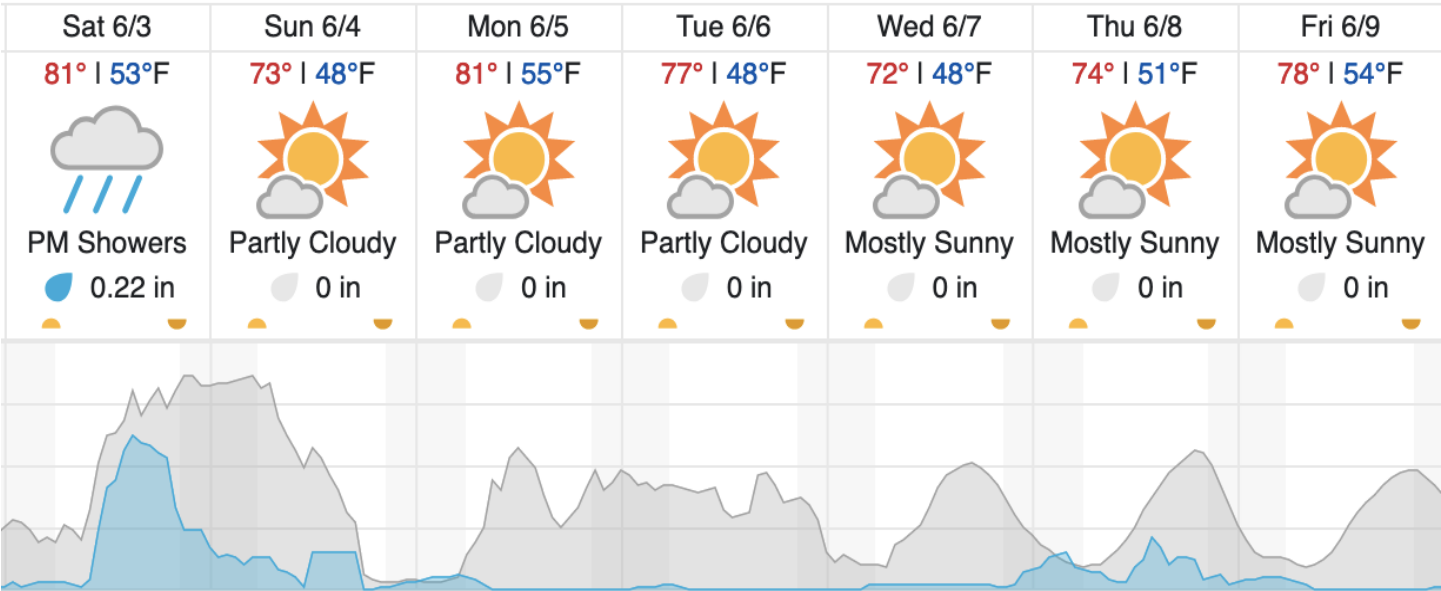
|    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|
| 2  | 3  | 4  | 5  | 6  | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22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

Flown: 0% (0/25)  
Green: 0% (0/25)  
Yellow: 0% (0/25)  
Red: 0% (0/25)

Weather Forecast  
Pembroke, VA (MLBS)

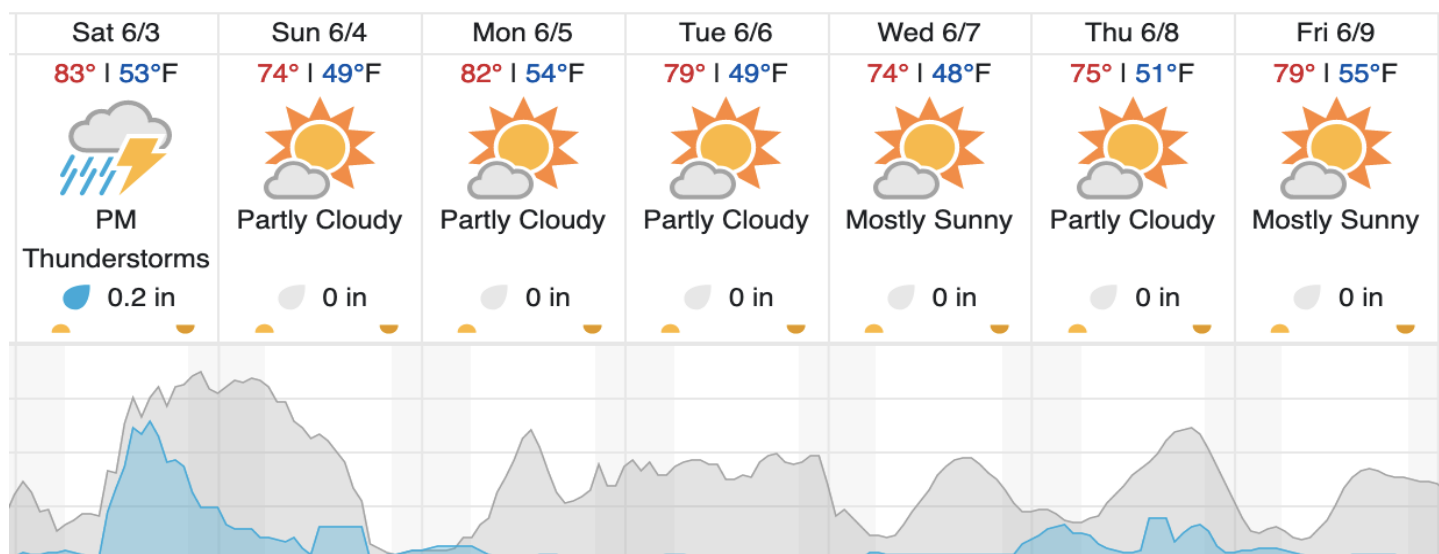


Winchester, VA (BLAN)

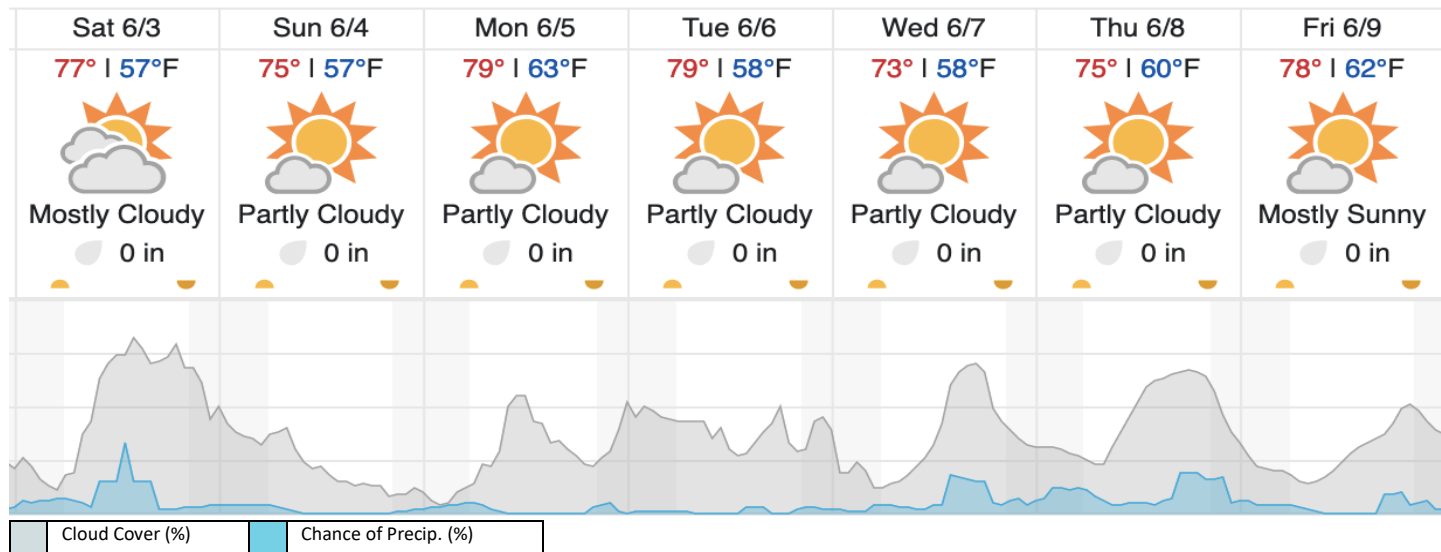




## Front Royal, VA (SCBI)



## Annapolis, MD (SERC)



source: wunderground.com

## Flight Collection Plan for June 3, 2023

### Flyority 1 (*Lines 2-13*)

Collection Area: Mountain Lake Biological Station (MLBS)

Flight Plan Name: D07\_MLBS\_R1\_P1\_v7\_PRM.xml

On-Station Time: 1340UTC/ 0940 L

### Flyority 2

Collection Area: Smithsonian Conservation Biology Institute (SCBI)

Flight Plan Name: D02\_SCBI\_C1\_P1\_v2\_PRM.xml

On-Station Time: 1330 UTC/ 0930 L

### Flyority 3

Collection Area: Smithsonian Environmental Research Center (SERC)

Flight Plan Name: D02\_SERC\_R1\_P1\_v1\_PRM.xml

On-Station Time: 1330 UTC/ 0930 L

#### Flyority 4

Collection Area: Blandy Experimental Farm (BLAN)

Flight Plan Name: D02\_BLAN\_R2\_P1\_v3\_PRM.xml

On-Station Time: 1330 UTC/ 0930 L

#### Flyority 5

Collection Area: Nominal Runway – D02 - KOKV

Flight Plan Name: D02\_N02B\_Nominal\_Runway\_Test\_v1\_PRM.xml

On-Station Time: N/A

**Crew:** Abe (Lidar), Cam (NIS)