



Payload 2 Daily Flight Report



Date: 2026-07-30

Flight Campaign ID: P2C1

Airport, FBO ID, City: Winchester Regional Airport (KOKV) - Winchester, VA; Greenbrier Valley Airport (KLWB) - Lewisburg, WV

Aircraft: N821AR

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

Sites Flown: BLAN (Blandy Experimental Farm)

Days left in Domain: 10

Report Author: Mitch

Lidar Operators: Mitch

Spectrometer Operators: Cameron

Pilots: Landon, Justin

Flight Hours: 01:25:00, 02:00:00

Hours until maintenance: 99.52

GPS Instruments: AOP_BLAN

Summary

Frustrating day for the crew, with very little data to show for the effort. With the extended forecast indicating rather unfavorable conditions for the remainder of our time in D02, the crew viewed today's forecast of clear skies over southwestern Virginia as the best remaining opportunity to collect data at MLBS. However, instead of the expected clear skies, upon arrival at MLBS the team encountered cumulus clouds at and below our planned flight altitude. The decision was made to land at nearby Greenbrier Valley Airport and wait for additional diurnal heating, with the expectation that a rising lifting condensation level would raise cloud bases enough to allow collection beneath them. After two hours on the ground, surface temperatures over Mountain Lake had stabilized, indicating that the period of significant daytime heating had ended. As a result, the lifting condensation level was not expected to increase further, and cloud bases were forecast to remain near their existing altitude. After taking off, this proved true as the crew confirmed that clouds remained below flight altitude over MLBS, preventing any data collection. Disappointed, the crew returned to Winchester, stopping at BLAN to collect the final three flight lines and completing the initial coverage there.

Concerns

None

Comments

None

Daily Coverage

D02 | BLAN

Line #	11	12	13
Lidar	✓	✓	✓
Spectrometer	✓	✓	✓
Camera	✓	✓	✓
Cloud Cover			

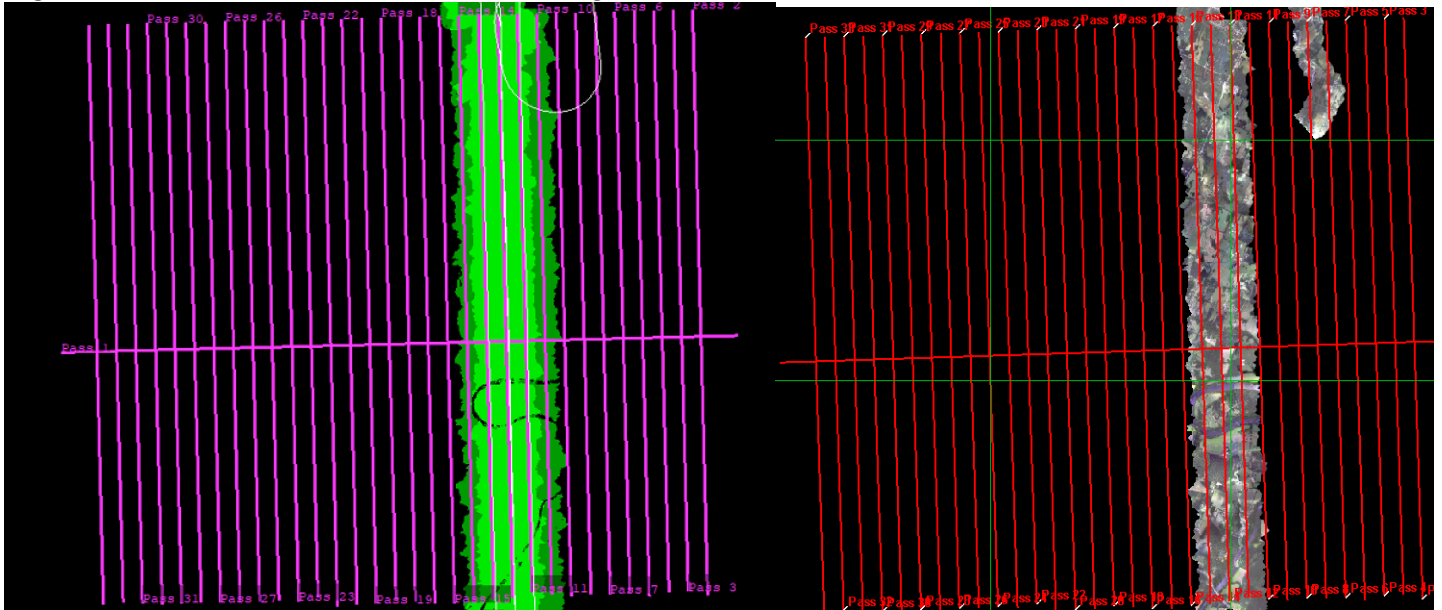
Total number of lines flown: 3

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (*)

Flight Screenshots: Lidar on the left, NIS on the right.



Pictures: MLBS flight box upon arrival at the site.



Cumulative Domain Coverage

D02 | BLAN (Blandy Experimental Farm)

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							

Flown: 100% (33/33)

Green: 91% (30/33)

Yellow: 0% (0/33)

Red: 9% (3/33)

* Flown within 35deg solar angle

D02 | SCBI (Smithsonian Conservation Biology Institute)

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								

Flown: 100% (32/32)

Green: 56% (18/32)

Yellow: 44% (14/32)

Red: 0% (0/32)

* Flown within 35deg solar angle

D02 | SERC (Smithsonian Ecological Research Center)

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														

Flown: 100% (26/26)

Green: 0% (0/26)

Yellow: 100% (26/26)

Red: 0% (0/26)

* Flown within 35deg solar angle

D07 | MLBS (Mountain Lake Biological Station)

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						

Flown: 50% (17/34)

Green: 0% (0/34)

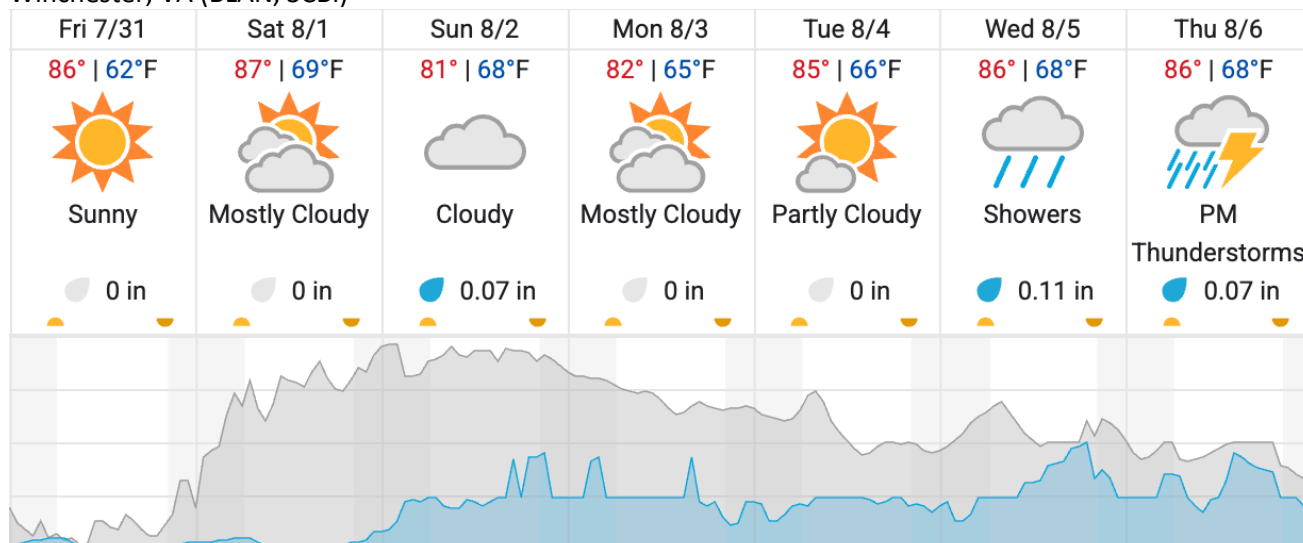
Yellow: 0% (0/34)

Red: 50% (17/34)

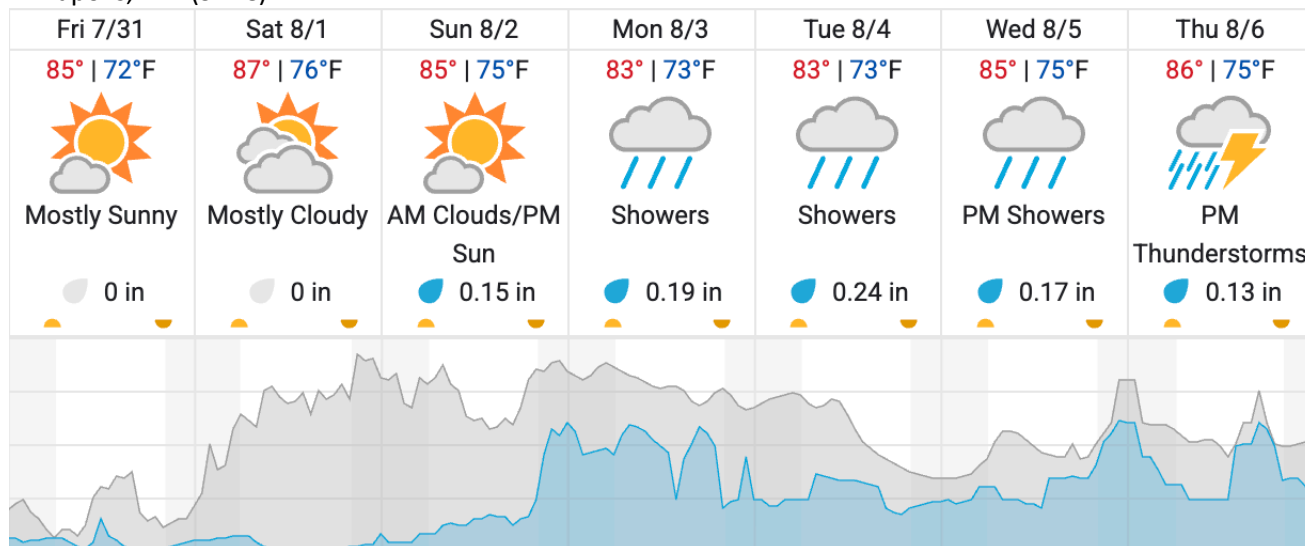
* Flown within 35deg solar angle

Weather Forecast

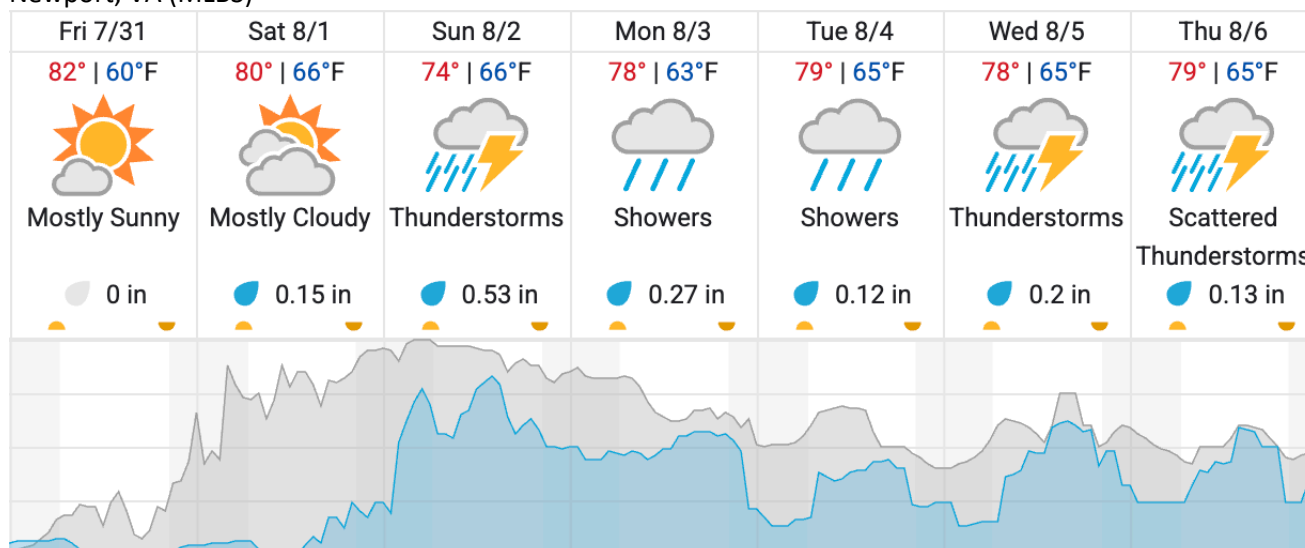
Winchester, VA (BLAN, SCBI)

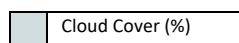
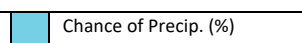


Annapolis, MD (SERC)



Newport, VA (MLBS)



 Cloud Cover (%)	 Chance of Precip. (%)
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source: wunderground.com

Flight Collection Plan for 29 July 2026

Flyority 1

Collection Area: Smithsonian Ecological Research Center (SERC) – *Only if green*

Flight Plan Name: D07_SERC_R1_P1_v3_VQ780

40° On-station Time: 13:50 UTC / 09:50 L

Flyority 2

Collection Area: Smithsonian Conservation Biology Institute (SCBI) – *Only if green*

Flight Plan Name: D02_SCBI_C1_P1_v3_VQ780

40° On-station Time: 13:50 UTC / 09:50 L

Flyority 3

Collection Area: Mountain Lake Biological Station (MLBS)
Flight Plan Name: D07_MLBS_R1_P1_v8_VQ780
40° On-station Time: 13:50 UTC / 09:50 L

Flyority 4

Collection Area: Blandy Experimental Farm (BLAN)
Flight Plan Name: D02_BLAN_R2_P1_v4_VQ780
40° On-station Time: 14:00 UTC / 10:00 L

Crew: Cam (Lidar), Mitch (NIS)