



Payload 2 Daily Flight Report



Date: 2026-06-21
Flight Campaign ID: P2C1
Airport, FBO ID, City: Asheville Regional Airport (KAVL) - Fletcher, NC
Aircraft: N821AR

Domain: 07 (Appalachians & Cumberland Plateau)
Sites Flown: ORNL (Oak Ridge National Laboratory)
Days left in Domain: 12

Report Author: Mitch
Lidar Operators: Mitch
Spectrometer Operators: Elissa
Pilots: Justin, Skylar
Flight Hours: 02:11
Hours until maintenance: 20.85
GPS Instruments: C-NCHE, TDOT-TN16, TDOT-TN1A

Summary
The team took off this morning in hopes of a green, clear-sky window over ORNL. However, upon arrival on site, cumulus clouds had already begun to form at and below flight altitudes. The team was able to work around the survey area, avoiding clouds long enough to collect 10 flight lines under non-green conditions before increasing cloud cover forced the mission to be aborted and the aircraft to return to Asheville.

Concerns
None

Comments

- 125-hour aircraft maintenance set for Monday and Tuesday of this week.
- Took 4 hours after today’s flight to be fueled and towed into the hangar.

Daily Coverage

Estimated Cloud Cover Key

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

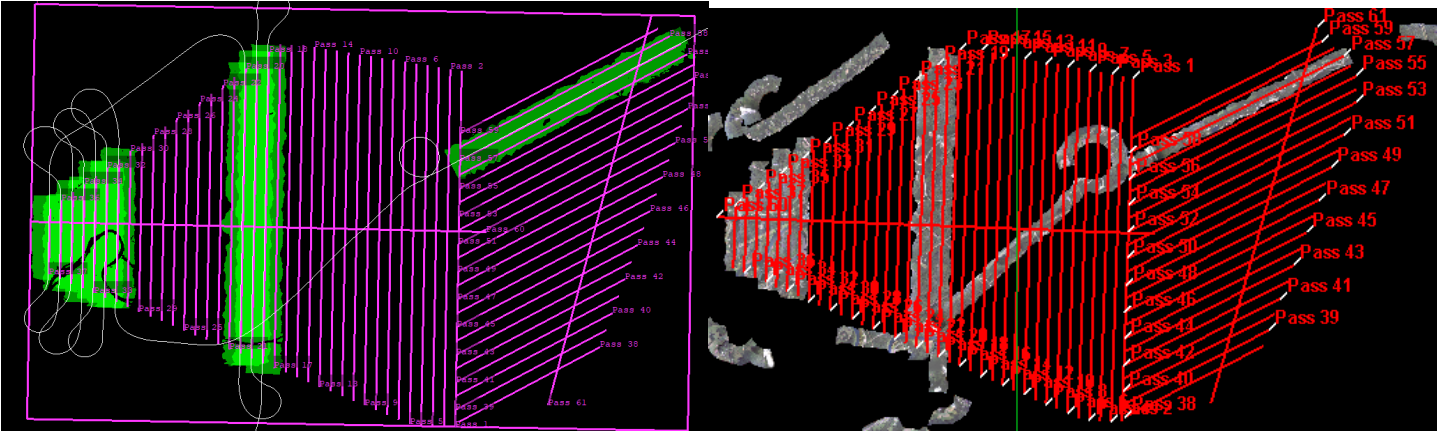
Solar Angle Less Than 40 degrees: (*)

D07|ORNL

Line #	18	19	20	31	32	33	34	35	36	37
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover										

Total number of lines flown: 10

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



Pictures: Low cumulus clouds plaguing today's survey.



Cumulative Domain Coverage

D07|GRSM_P1 (Great Smoky Mountains National Park Priority 1)

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	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69											

Flown: 100% (69/69)

Green: 62% (43/69)

Yellow: 14% (10/69)

Red: 23% (16/69)

* Flown within 35deg solar angle

D07 | GRSM_P2 (Great Smoky Mountains National Park Priority 2)

70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
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Flown: 100% (20/20)

Green: 0% (0/20)

Yellow: 0% (0/20)

Red: 100% (20/20)

* 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: 0% (0/34)

Green: 0% (0/34)

Yellow: 0% (0/34)

Red: 0% (0/34)

* Flown within 35deg solar angle

D07 | ORNL (Oak Ridge National Laboratory)

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	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61																			

Flown: 77% (47/61)

Green: 28% (17/61)

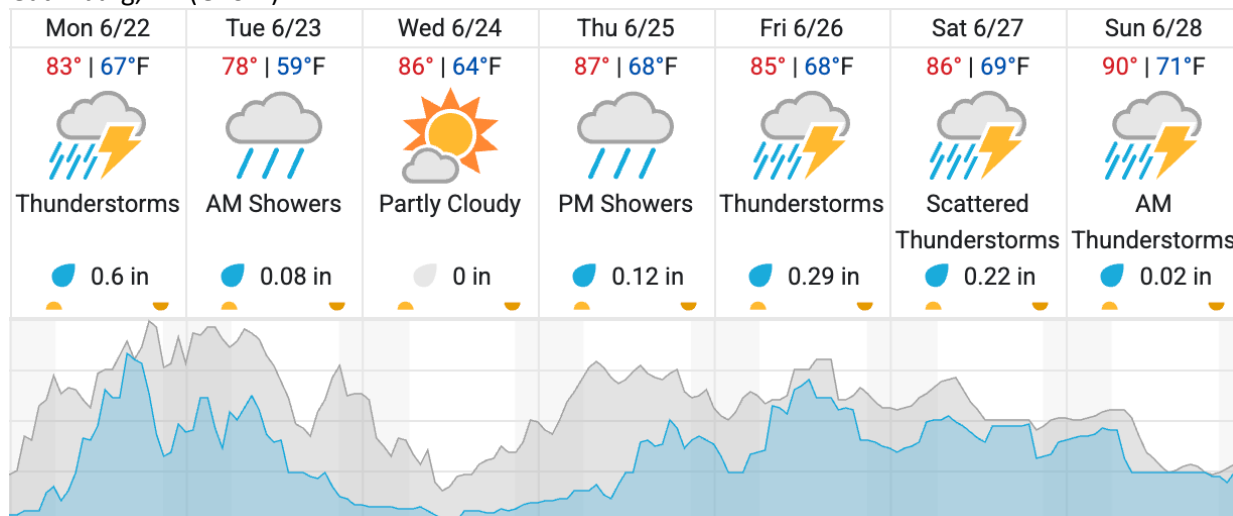
Yellow: 5% (3/61)

Red: 44% (27/61)

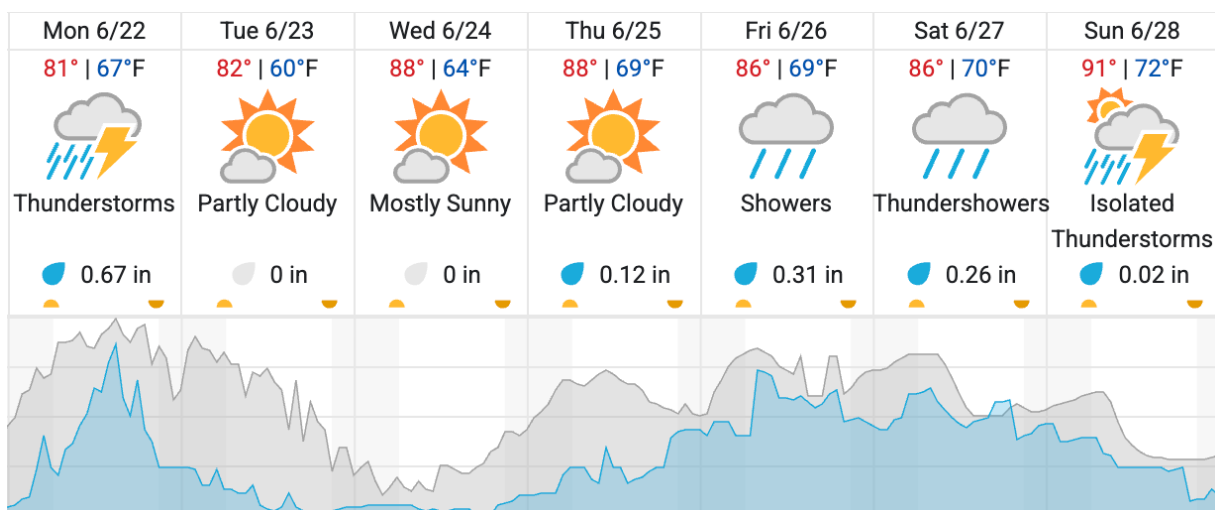
* Flown within 35deg solar angle

Weather Forecast

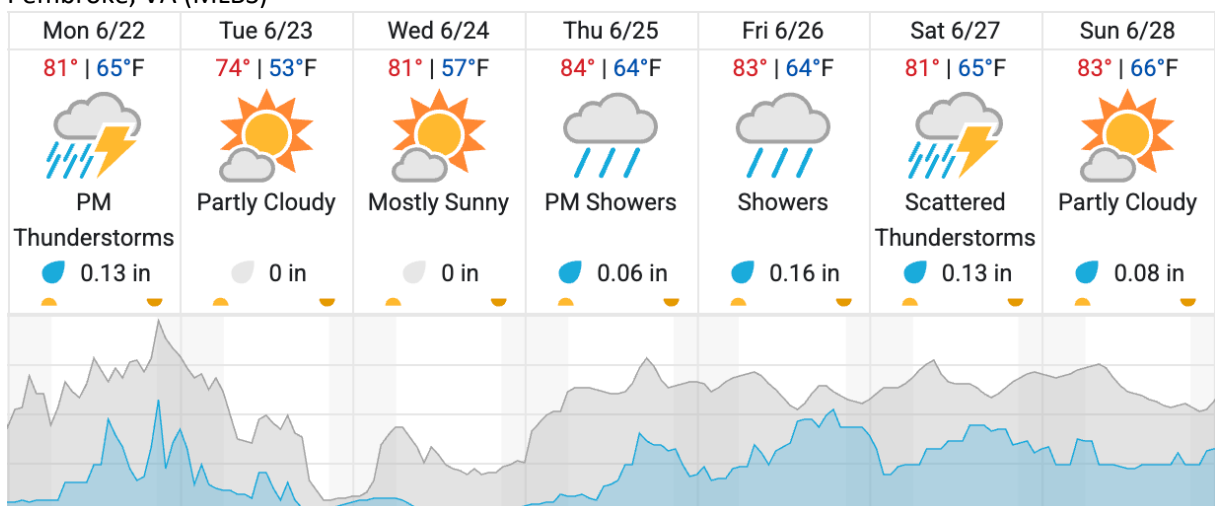
Gatlinburg, TN (GRSM)



Oak Ridge, TN (ORNL)



Pembroke, VA (MLBS)



source: wunderground.com

Flight Collection Plan for 22-23 June 2026

No flights planned – Scheduled 125-hour aircraft maintenance

Flight Collection Plan for 24 June 2026

Flyority 1

Collection Area: Great Smoky Mountains National Park (GRSM) – Priority 1 Flight Box

Flight Plan Name: D07_ D07_GRSM_R1_P1_v6_VarAlt_VQ780

40° On-station Time: 14:00 UTC /10:00L

Flyority 2

Collection Area: Oak Ridge National Laboratory (ORNL)

Flight Plan Name: D07_ORNL_C1_P1_v11_west_VQ780 (lines 1-37, 60) / D07_ORNL_C1_P1_v11_east_VQ780

40° On-station Time: 14:00 UTC / 10:00L

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 /09:50L

Flyority 4

Collection Area: Great Smoky Mountains National Park (GRSM) – Priority 2 Flight Box

Flight Plan Name: D07_D07_GRSM_R1_P2_v6_VarAlt_VQ780

40° On-station Time: 14:00 UTC /10:00L

Crew: Elissa (Lidar), Mitch (NIS)