



Payload 2 Daily Flight Report



Date: 2026-07-01
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: 2

Report Author: Alyssa
Lidar Operators: Alyssa **Flight Hours:** 02:34
Spectrometer Operators: Elissa **Hours until maintenance:** 122.43
Pilots: Justin, Jonathon **GPS Instruments:** C-NCHE, TDOT-TN16, TDOT-TN1A

Summary

Crew was optimistic for green conditions over ORNL today, but layers of smoke haze and high cirrus kept collections in yellow/red.

Concerns

During a line, the NIS swath narrowed and dropped out, then came back and widened to normal. Line was reflown, no other issues.

Comments

Connection issues with KVM mouse and acquisition computer 2nd display, both solved with several reseatings of cables.

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (*)

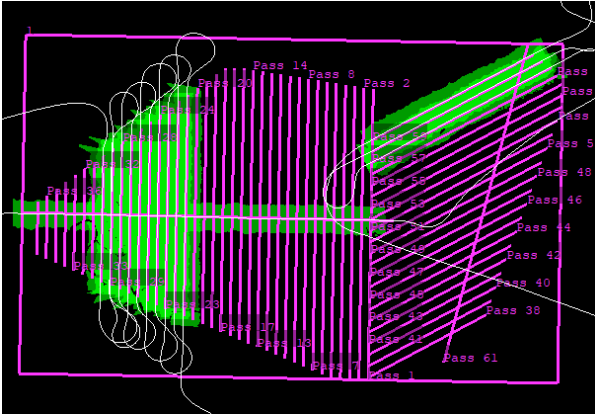
D07|ORNL

Line #	21	22	23	24	25	26	27	28	29	30	57	58	59	60
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	

Total number of lines flown: 14

Flight Screenshots

Lidar



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
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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: 100% (61/61)

Green: 28% (17/61)

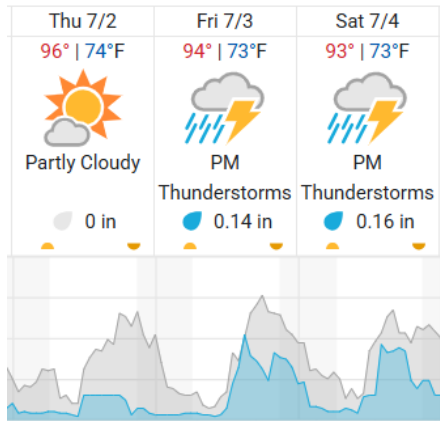
Yellow: 21% (13/61)

Red: 51% (31/61)

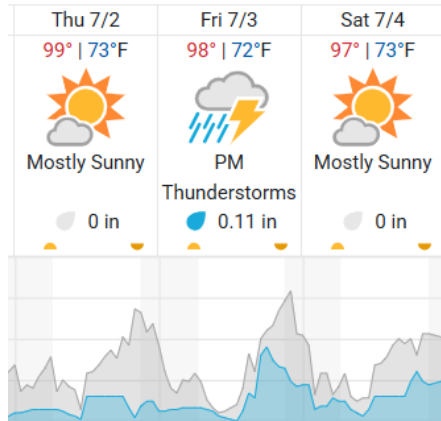
* Flown within 35deg solar angle

Weather Forecast

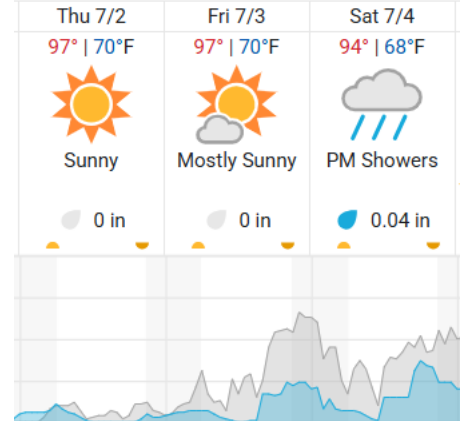
Gatlinburg, TN (GRSM)



Oak Ridge, TN (ORNL)



Pembroke, VA (MLBS)



source: wunderground.com

Flight Collection Plan for 2 July 2026

Flyority 1

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

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) – *only if green*

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 – *only if green*

Flight Plan Name: D07_D07_GRSM_R1_P2_v6_VarAlt_VQ780

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

Crew: Elissa (Lidar), Alyssa (NIS)