



Payload 2 Daily Flight Report

Date: 2026-06-05
Flight Campaign ID: P2C1
Airport, FBO ID, City: Asheville Regional Airport (KAVL) - Fletcher, NC
Aircraft: N821AR

Domain: 07 (Appalachians & Cumberland Plateau)
Sites Flown: GRSM_P1 (Great Smoky Mountains National Park Priority 1), GRSM_P2 (Great Smoky Mountains National Park Priority 2)
Days left in Domain: 28

Report Author: Cameron
Lidar Operators: Cameron **Flight Hours:** 03:42
Spectrometer Operators: Mitch **Hours until maintenance:** 26.43
Pilots: Justin, Skylar **GPS Instruments:** C-NCHE, NPS-GRSM

Summary

The crew collected additional initial coverage at Great Smoky Mountains National Park under 'red' conditions. We successfully collected 35 lines across both the P1 and P2 flight boxes until cumulus clouds began developing below flight altitude.

Concerns

- None

Comments

- None

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (*)

D07|GRSM_P2

Line #	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																			

Total number of lines flown: 19

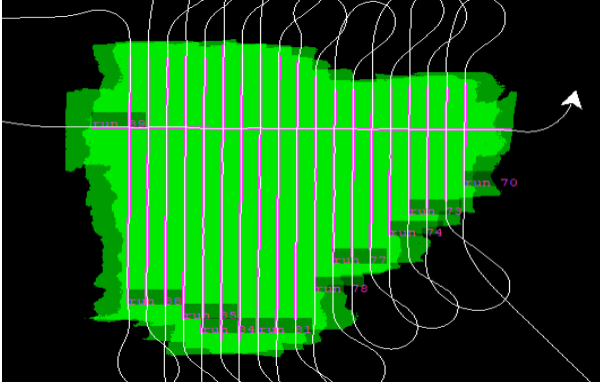
D07|GRSM_P1

Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																

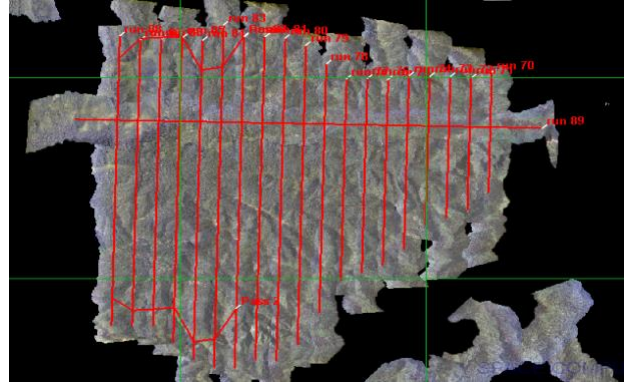
Total number of lines flown: 16

Flight Screenshots

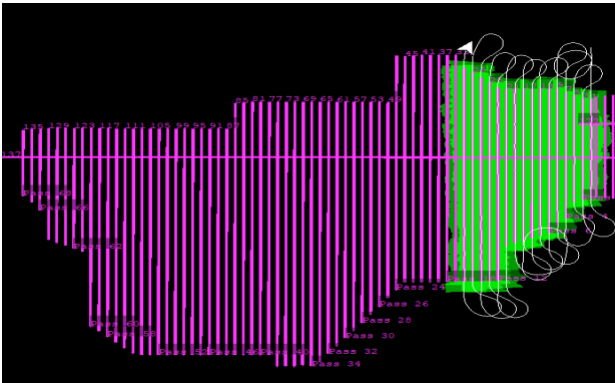
Lidar P2



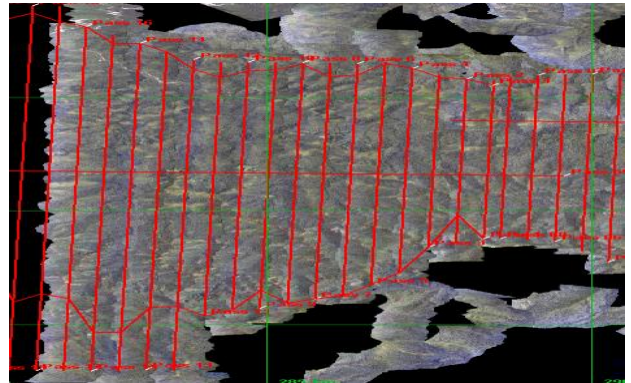
NIS P2



Lidar P1



NIS P2



Pictures: GRSM



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: 72% (50/69)

Green: 32% (22/69)

Yellow: 17% (12/69)

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: 61% (37/61)

Green: 28% (17/61)

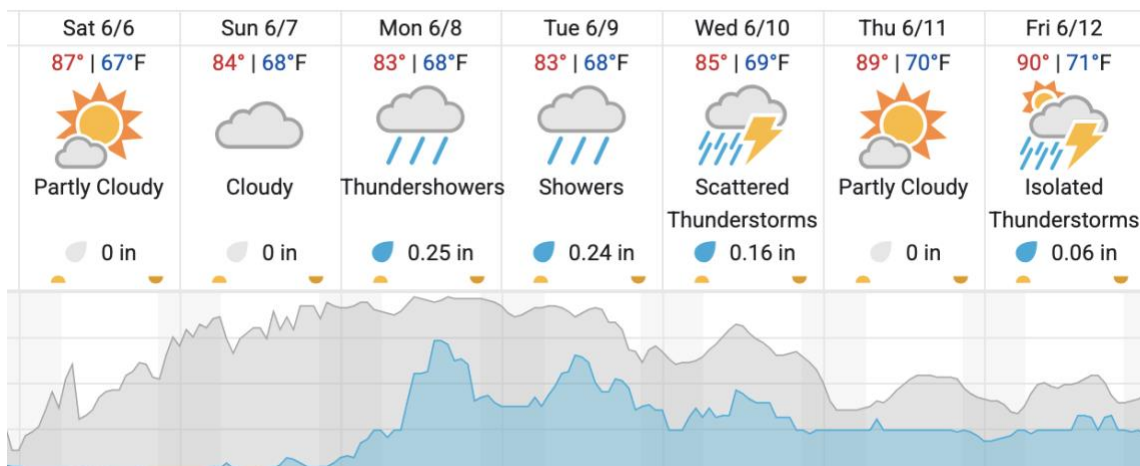
Yellow: 0% (0/61)

Red: 33% (20/61)

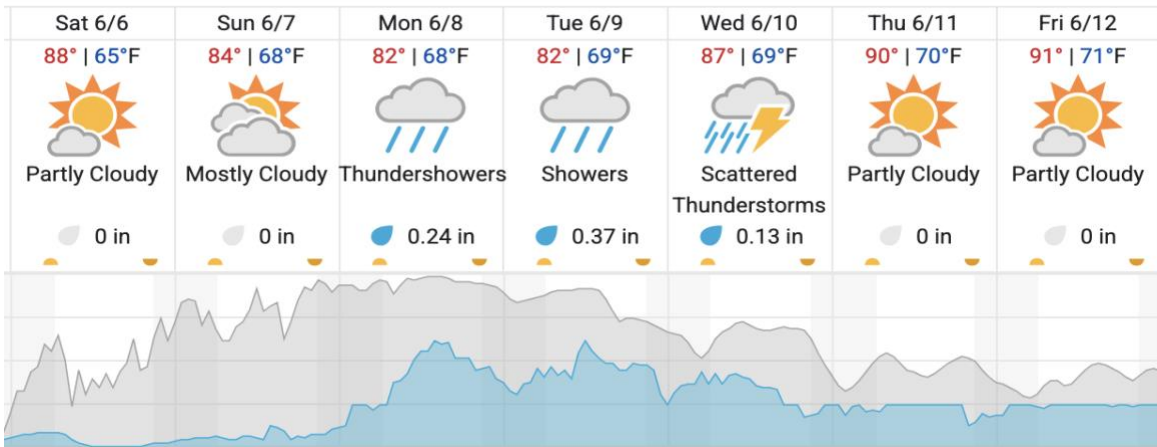
* Flown within 35deg solar angle

Weather Forecast

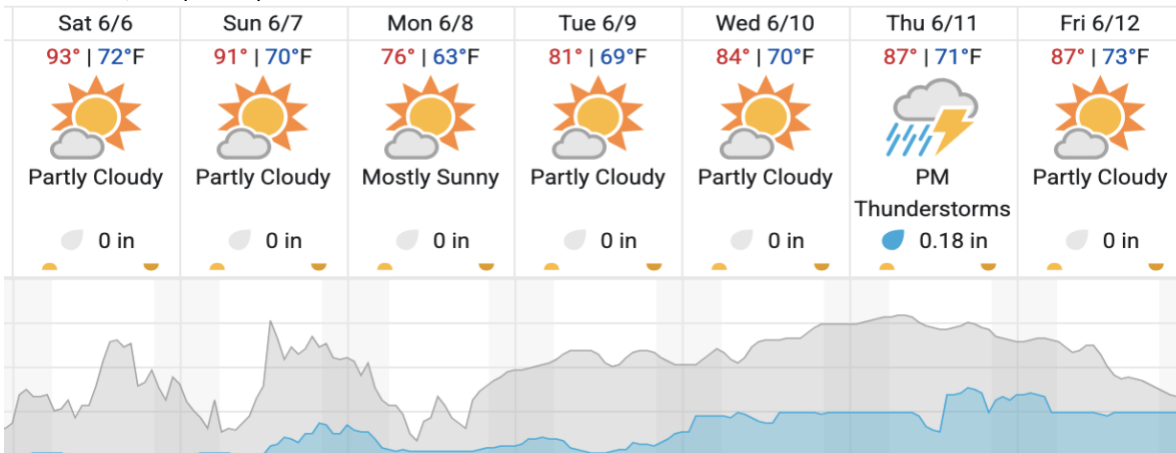
Gatlinburg, TN (GRSM)



Oak Ridge, TN (ORNL)



Pembroke, VA (MLBS)



Cloud Cover (%) Chance of Precip. (%)

source: wunderground.com

Flight Collection Plan for June 6, 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: Mitch (Lidar), Cameron (NIS)