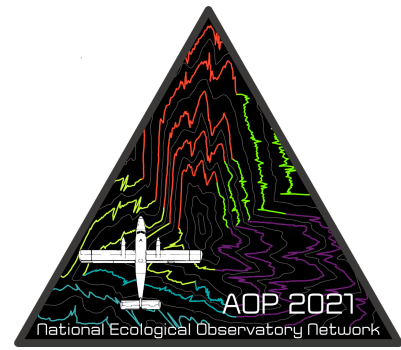




Payload 1 Daily Flight Report



Date: 2021-06-17

Flight Campaign ID: P1C2

Airport, FBO ID, City: Asheville Regional Airport (KAVL) - Fletcher, NC, Roanoke-Blacksburg Regional Airport (KROA) Roanoke, VA

Aircraft: N331AR

Domain: 07 (Appalachians & Cumberland Plateau)

Sites Flown: MLBS (Mountain Lake Biological Station)

Days left in Domain: 13

Report Author: Cameron Chapman

Lidar Operators: Cameron Chapman

Flight Hours: 04:44:00, 01:17:00

Spectrometer Operators: Michael Wussow

Hours until maintenance: 54.63

Pilots: Justin Eddington, Paul Nunemann

GPS Instruments: 05 - FBO_KAVL, C-LS04

Summary

Cumulus clouds developed early around GRSM so the crew shifted focus and transited to MLBS and were greeted by clear skies. The crew was able to collect the entire site (34 lines) in Green conditions prior to landing at nearby Roanoke-Blacksburg Regional Airport for fuel.

Concerns

None

Comments

- Big thanks to the pilots for extreme proficiencies during todays mission!!

Daily Coverage

Estimated Cloud Cover Key

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

D07 | MLBS

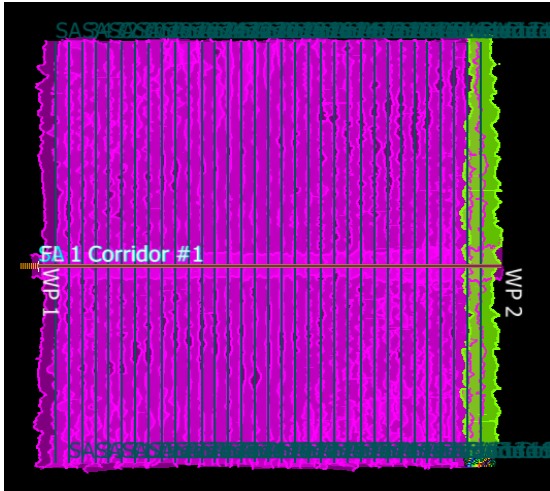
Line #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lidar		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																				

Line #	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover														

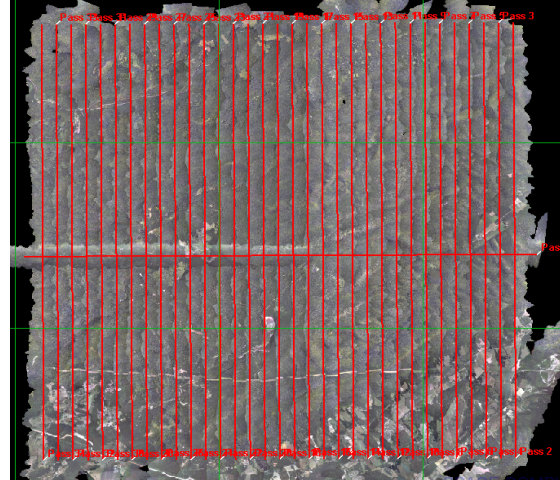
Total number of lines flown: 34

Flight Screenshots

Lidar Swath



NIS GeoPaint



Pictures



Top: The crew transited past some of the highest east of the Mississippi.

Bottom: A view of MLBS as seen during today's flight.



Cumulative Domain Coverage

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: 100% (34/34)

Green: 100% (34/34)

Yellow: 0% (0/34)

Red: 0% (0/34)

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: 38% (23/61)

Yellow: 62% (38/61)

Red: 0% (0/61)

D07 | N07A (D07 Nominal Runway)

1

Flown: 100% (1/1)

Green: 0% (0/1)

Yellow: 0% (0/1)

Red: 100% (1/1)

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: 0% (0/69)

Green: 0% (0/69)

Yellow: 0% (0/69)

Red: 0% (0/69)

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: 0% (0/20)

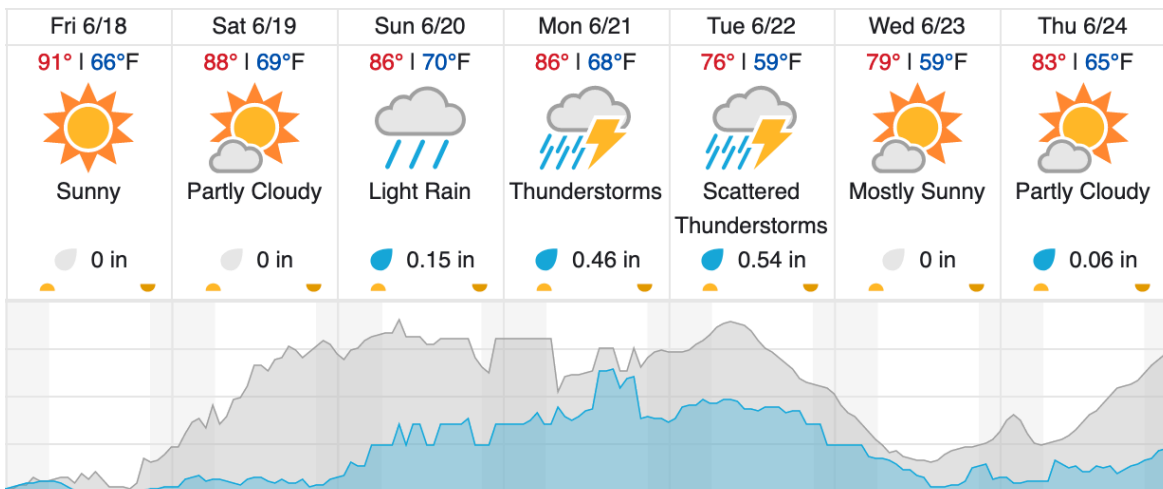
Green: 0% (0/20)

Yellow: 0% (0/20)

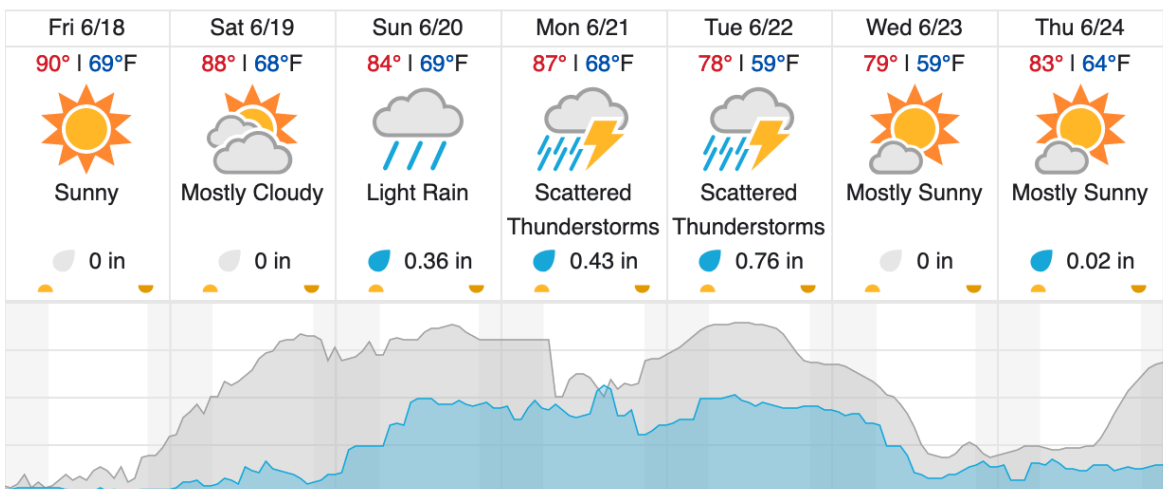
Red: 0% (0/20)

Weather Forecast

Oak Ridge, TN



Gatlinburg, TN



source: wunderground.com

Flight Collection Plan for 18 June 2021

Flyority 1

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

Flight Plan Name: D07_GRSM_R1_P1_P2_v5_PRM_Var_Alt.xml

On-Station Time: 1400 – 2100 UTC / 1000 – 1700 L

Flyority 2

Collection Area: Oak Ridge National Laboratory (ORNL)

Flight Plan Name: D07_ORNL_C1_P1_v9_PRM_highPRF.xml

On-Station Time: 1400 – 2100 UTC / 1000 – 1700 L

*only if green conditions exist

Flyority 3

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

Flight Plan Name: D07_GRSM_R1_P1_P2_v5_PRM_Var_Alt.xml

On-Station Time: 1400 – 2100 UTC / 1000 – 1700 L

Crew: Cam & Mike