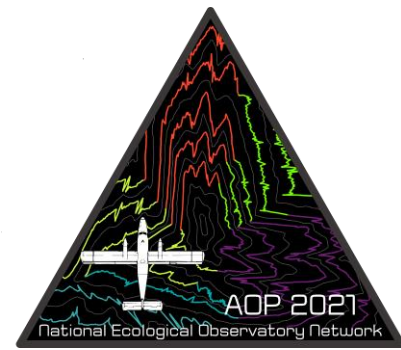




Payload 1 Daily Flight Report



Date: 2021-05-31
Flight Campaign ID: P1C2
Airport, FBO ID, City: Asheville Regional Airport (KAVL) - Fletcher, NC
Aircraft: N331AR

Domain: 07 (Appalachians & Cumberland Plateau)
Sites Flown: ORNL (Oak Ridge National Laboratory)
Days left in Domain: 30

Report Author: Elissa Barris
Lidar Operators: Elissa Barris
Spectrometer Operators: Ivana Vu
Pilots: Justin Eddington, Vince Maarschalkerweerd

Flight Hours: 03:01
Hours until maintenance: 76.35
GPS Instruments: 05 - FBO_KAVL, C-TN16, TDOT-TN1A

Summary

Initial coverage was flown at ORNL in yellow conditions. Very low cumulus clouds (below survey altitude) prevented any collection attempt at GRSM, and also began forming over Oak Ridge in the late morning, eventually pushing us out.

Concerns

The lidar eye-safety shutoff was triggered three times, first by a tall structure below Line 7, and subsequently by clouds. The laser and software behaved normally the first two times, but the third time the laser shut off completely and all options within the FMSNav software for changing configurations, turning it back on, or controlling the shutter were greyed-out. Restarting the FMSNav software without shutdown and power-cycling the digitizer had no effect. A full restart would have also required shutting down POS, and by this point clouds were forming very quickly and making collection difficult. No cross-strip was collected. Once back on the ground, a full restart of the UPDU and FMSNav managed to bring the laser back online.

Comments

John Adler will be arriving in Asheville tonight; Elissa Barris is rotating out tomorrow morning.

Daily Coverage

Estimated Cloud Cover Key

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

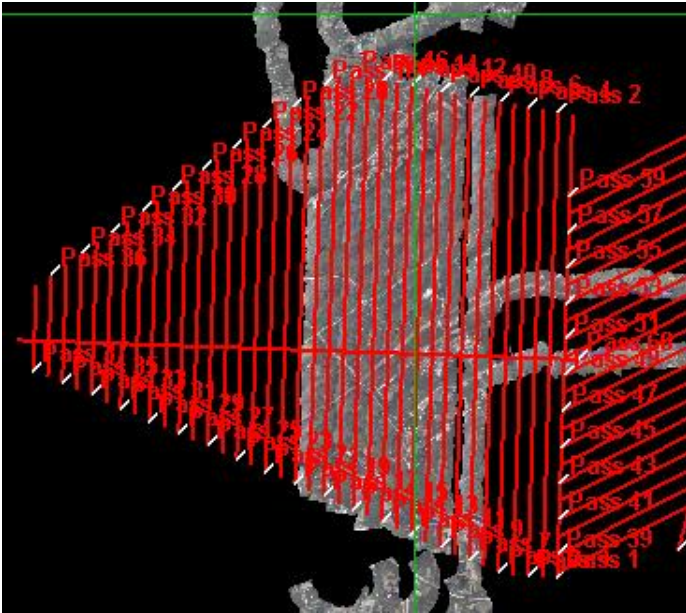
D07|ORNL

Line #	7	9	10	11	12	13	14	15	16	17
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover										

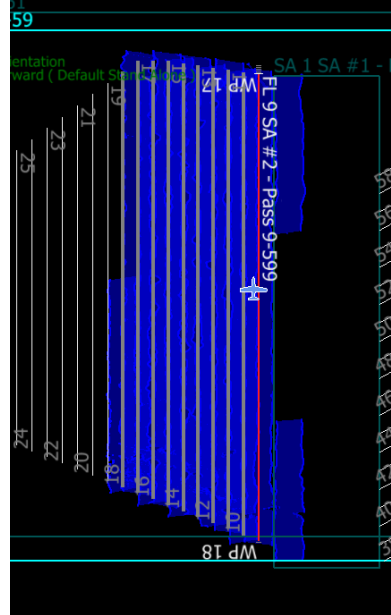
Total number of lines flown: 10

Flight Screenshots

NIS



LiDAR



Pictures



Early morning cumulus over the mountains, but thinning out approaching Oak Ridge.

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: 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)

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)

D07|N07A (D07 Nominal Runway)

1

Flown: 0% (0/1)

Green: 0% (0/1)

Yellow: 0% (0/1)

Red: 0% (0/1)

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: 30% (18/61)

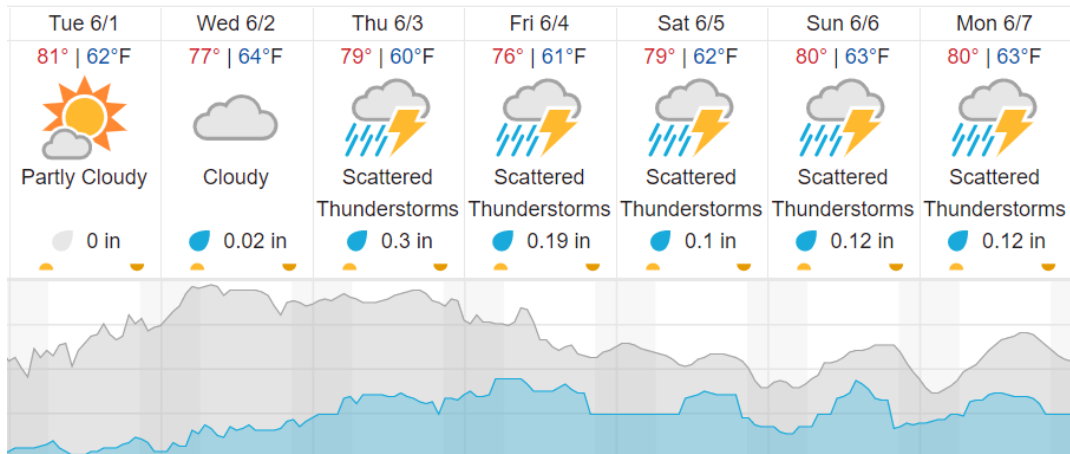
Green: 0% (0/61)

Yellow: 30% (18/61)

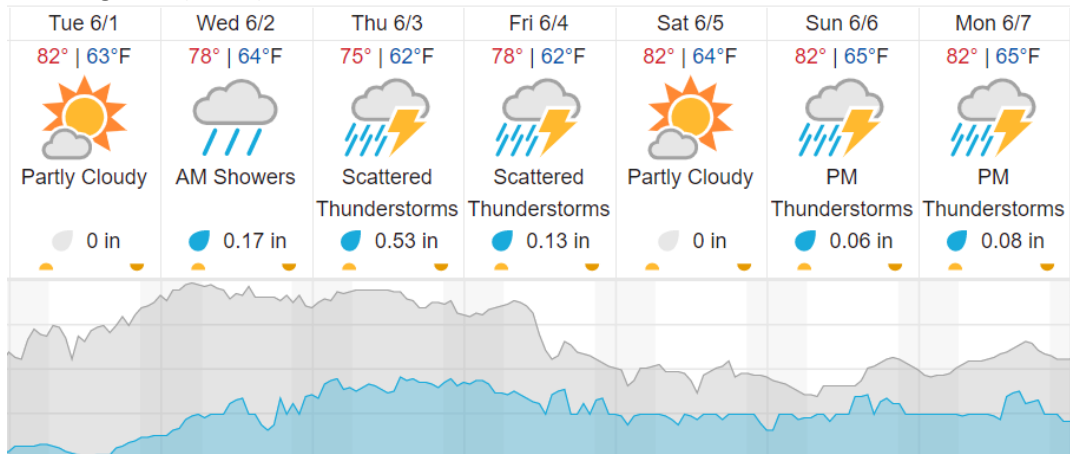
Red: 0% (0/61)

Weather Forecast

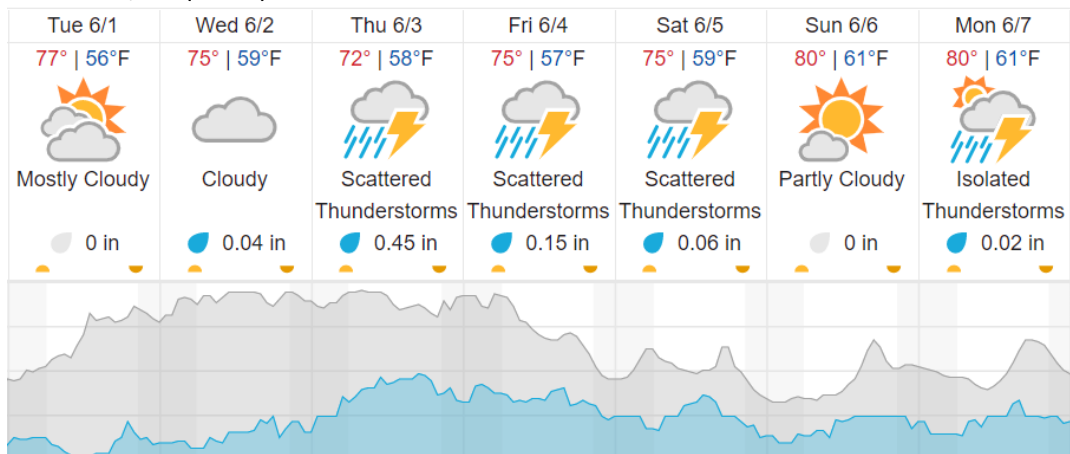
Gatlinburg, TN (GRSM)



Oak Ridge, TN (ORNL)



Pembroke, VA (MLBS)



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

Flight Collection Plan for 1 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.xml

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

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: Ivana & John