



June 6, 2018 Payload 3 Daily Flight Report



Date: 2018-06-06

Flight Campaign ID: 2018_P3C1

Airport, FBO ID, City: Asheville Regional Airport (KAVL) - Fletcher, NC

Domain: 07

Sites Flown: GRSM_P1 (Great Smoky Mountains National Park Priority 1)

Days left in Domain: 17

Report Author: Ivana Vu

Flight Crew: Ivana Vu, Abe Morrison

Flight Hours: 04:29

Ground/GPS: Robb Walker

Hours until maintenance: 112.88

Pilots: Mike Francis, Hans Germann

Additional Personnel: None

GPS Instruments: 08 - GRSM, 09 - FBO_KAVL

Summary

Another sunny day allowed for initial coverage at GRSM_P1 over the priority airshed lines before low cumulus clouds forced the crew to return to Asheville. NIS FPIE items also arrived from JPL today and were installed after the flight – initial startup indicated that the spectrometer is now functional. However, the system lost power yesterday due to a UPS issue and needs to be pumped down and cooled before science collects can continue, hopefully tomorrow.

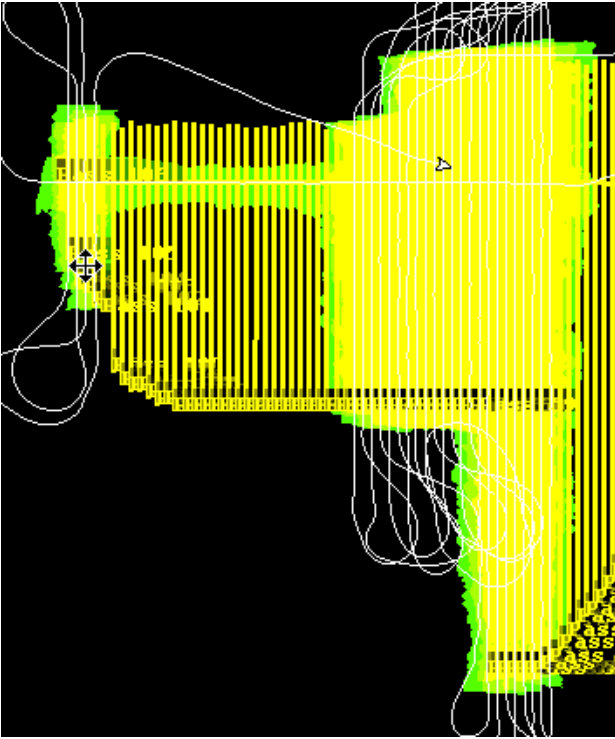
Concerns

- UPS3000 battery experienced intermittent issues and ECS power was lost as a result – crew will continue to closely monitor this.
- Sherpa was fully discharged due to the UPS3000 issue and is unable to charge or provide consistent power to the Teldat. Telemetry notifications may be inconsistent for now and Ian will ship a replacement Sherpa to D07.

Comments

- NIS is being pumped and cooled overnight in hopes that the system will be ready to conduct science collects tomorrow
- Another Hg Lamp Test will be completed prior to science collects
- Now that the payload is fully functional, priorities will focus on re-flying sites without spectrometer coverage

Flight Screenshots

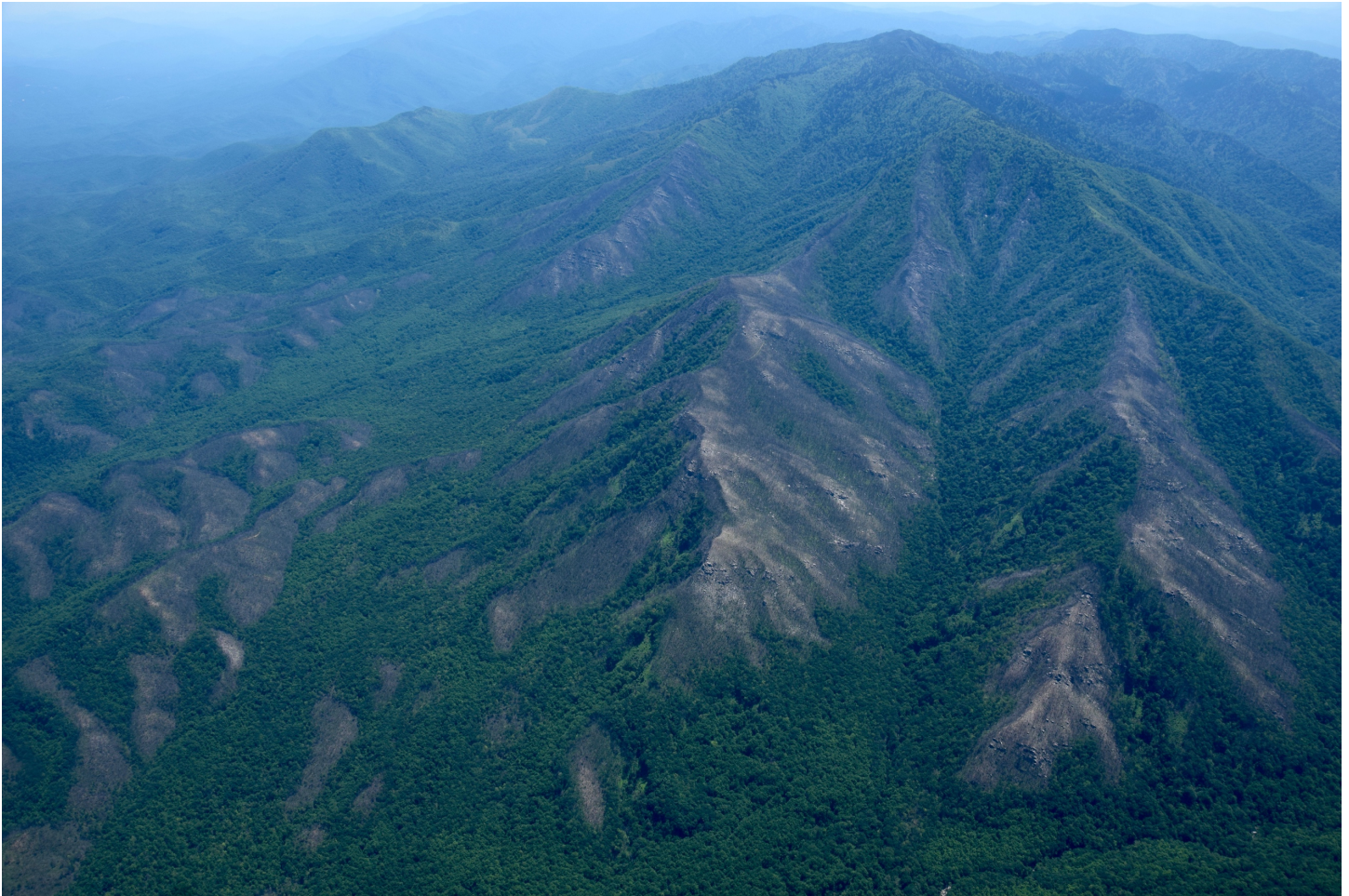


Pictures

The Great Smoky Mountains: America's most visited national park and part of the Appalachian Mountains, one of oldest mountain ranges in the world



Burn scars from the Fall 2016 fire



Daily Coverage

Only lidar and camera data at GRSM_P1: Lines 1, 51-73, 102-106

Cumulative Domain Coverage

Lidar and Camera Flights without Spectrometer

Camera Boresight at GRSM

Nominal Forest Survey at GRSM

MLBS: Lines 1, 6-25

GRSM_P1: Lines 1, 51-73, 102-106

GRSM_P1

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	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106														

Flown: 0% (0/106)

Green: 0% (0/106)

Yellow: 0% (0/106)

Red: 0% (0/106)

GRSM_P2

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												

Flown: 0% (0/68)
 Green: 0% (0/68)
 Yellow: 0% (0/68)
 Red: 0% (0/68)

MLBS

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)

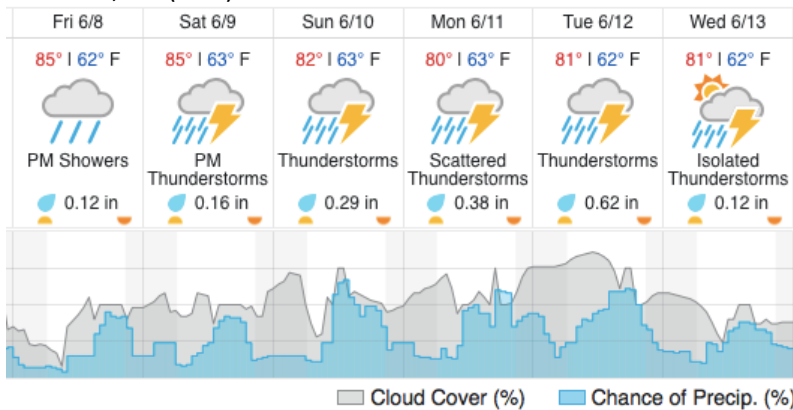
ORNL

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																			

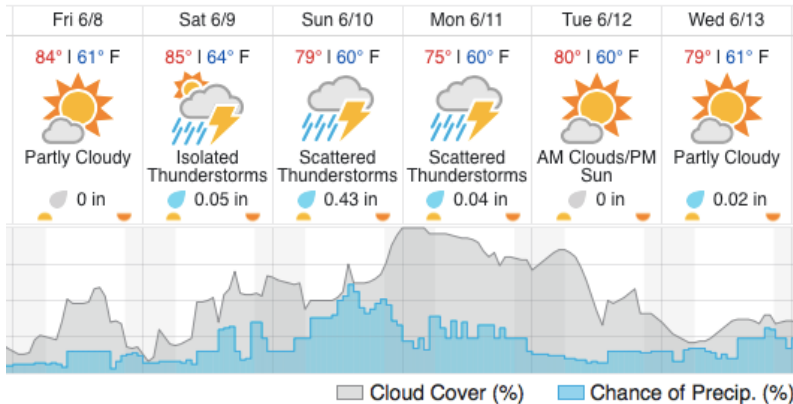
Flown: 100% (61/61)
 Green: 25% (15/61)
 Yellow: 61% (37/61)
 Red: 18% (11/61)

Weather Forecast

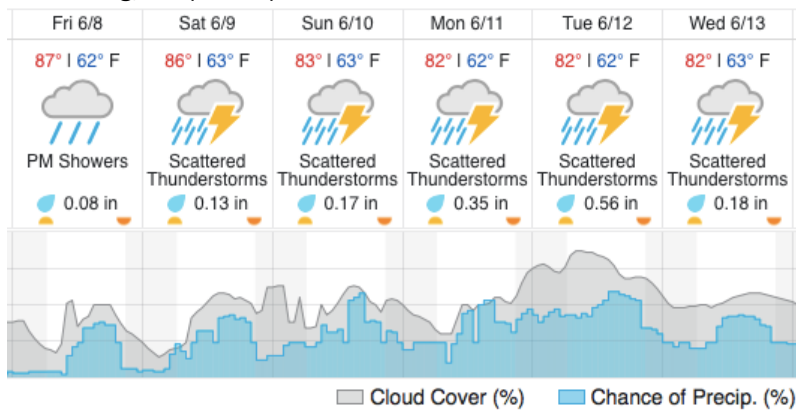
Asheville, NC (FBO)



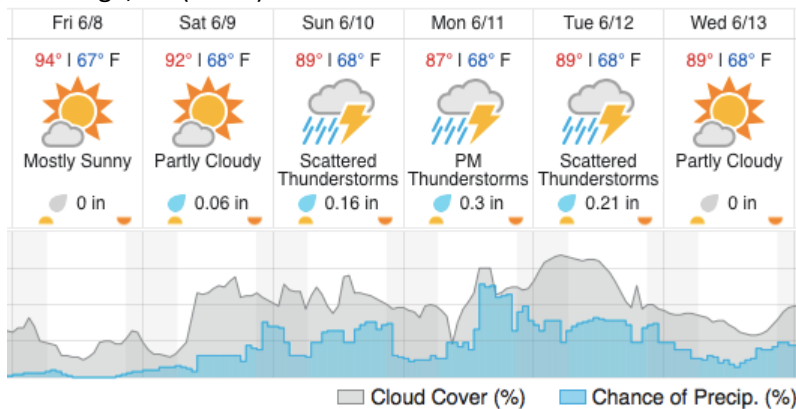
Pembroke, VA (MLBS)



Gatlinburg, TN (GRSM)



Oak Ridge, TN (ORNL)



Flight Collection Plan for 07 June 2018

Flyority 1:

Collection Area: Mountain Lake Biological Station (MLBS)

Flight Plan Name: D07_MLBS_R1_P1_v6_Q780

On-station Time: 1340 UTC / 0940 L

Flyority 2:

Collection Area: Great Smoky Mountains National Park – Priority 1 Flight Box (GRSM_P1)

Flight Plan Name: D07_GRSM_R2_P1_v2_Q780

On-station Time: 1350 UTC / 0950 L

Flyority 3:

Collection Area: Great Smoky Mountains National Park – Priority 2 Flight Box (GRSM_P2)

Flight Plan Name: D07_GRSM_R2_P2_v2_east_Q780 / D07_GRSM_R2_P2_v2_west_Q780

On-station Time: 1350 UTC / 0950 L

Flyority 4:

Collection Area: Oak Ridge National Laboratory (ORNL)

Flight Plan Name: D07_ORNL_C1_P1_v10_east_Q780 / D07_ORNL_C1_P1_v10_west_Q780

On-station Time: 1400 UTC / 1000 L

Crew: Robb Walker (Lidar), Ivana Vu (NIS), Abe Morrison (Ground/GPS)

Flight Collection Plan for 08 June 2018

Flyority: Same as previous day

Crew: Abe Morrison (Lidar), Robb Walker (NIS), Ivana Vu (Ground/GPS)