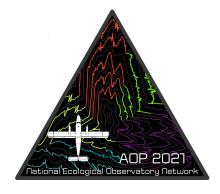


Payload 1 Daily Flight Report



Date: 2021-05-10

Flight Campaign ID: P1C2

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

Aircraft: N331AR

Domain: 07 (Appalachians & Cumberland Plateau)

Sites Flown: None Days left in Domain: 51

Report Author: Ivana Vu Lidar Operators: Ivana Vu

Flight Hours: 00:00 Spectrometer Operators: Elissa Barris Hours until maintenance: 83.38

GPS Instruments: None Pilots: Justin Eddington, Will Mathews

Summary

Data collection was not possible today with low clouds at all D07 sites. When the weather permits, a test flight will be conducted to train on the variable altitude flight plan and to determine proper in-flight procedures for swapping waveform disks.

Concerns

Permanent GPS station at MLBS is still experiencing connectivity issues although it is still online and logging. Another receiver is being shipped to replace the current unit. Based on the weather forecast, this will not interfere with data collection at the site.

Comments

- Per Ian Crocker's instructions, the waveform disk with MOAB data will be filled up to determine how FMS-Nav behaves when a disk is out of space. One line of data will also be collected on a 2nd set of waveform disks to allow for efficient testing on the Hotel Kit.
- John Musinsky is continuing to work with Optech and the flight crew to update P1 flights plans.

Cumulative Domain Coverage

Estimated Cloud Cover Key

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

D07 GRSM P1 (Great Smoky Mountains National Park Priority 1)

| | | _ | • | | , | <i>i i i</i> | | | | | | | | | | | | | |
|----|----|----|----|----|----|--------------|----|----|----|----|----|----------|----|----------|----|----------|----------|----------|----|
| 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 | | | | <u> </u> | | <u> </u> | | <u> </u> | <u> </u> | <u> </u> | |

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)

| - 1 | | _ (| | | | | | | | | , , | | | | | | | | | | |
|-----|-----|-----|-----|-------|----|-----|----|-----|-----|----|-----|----|----|-----|----|----|----|----|----|--|--|
| 70 | 71 | 72 | 73 | 7/1 | 75 | 76 | 77 | 78 | 79 | ጸበ | 21 | 82 | 83 | 2/1 | 25 | 86 | 27 | 88 | 29 | | |
| , 0 | , , | , _ | , , | , , - | ,, | , 0 | ,, | , 0 | , , | 00 | 01 | 02 | 05 | 0- | 05 | 00 | 0, | 00 | 00 | | |

Flown: 0% (0/20) Green: 0% (0/20) Yellow: 0% (0/20) Red: 0% (0/20)

D07 | MLBS (Mountain Lake Biological Station)

| | | | ` | | | | | | | | · · · · · · · · · · · · · · · · · · · | | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|---------------------------------------|----|----|----|----|----|----|----|----|----|--|--|--|
| ĺ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | | |
| ĺ | 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)

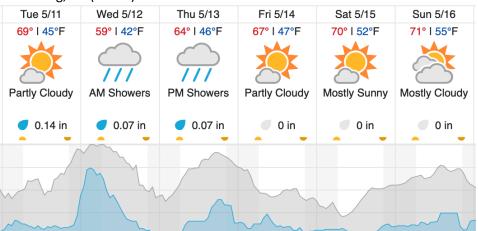
D07 | ORNL (Oak Ridge National Laboratory)

| | 20. 0 (0 an | | | | | | | | | | | | | | | | | | |
|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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 | | | • | • | | • | • | • | • | | | • | | • | • | | • | | |

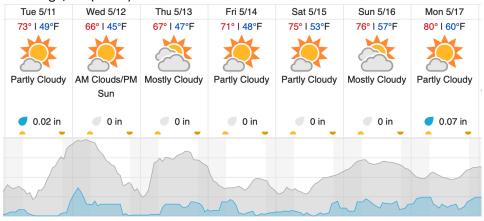
Flown: 0% (0/61) Green: 0% (0/61) Yellow: 0% (0/61) Red: 0% (0/61)

Weather Forecast

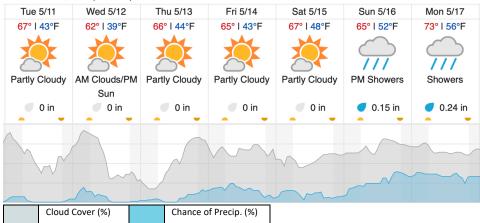
Gatlinburg, TN (GRSM)



Oak Ridge, TN (ORNL)



Pembroke, VA (MLBS)



source: wunderground.com

Flight Collection Plan for 11 May 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 UTC / 1000 L

Flyority 2

Collection Area: Oak Ridge National Laboratory (ORNL) Flight Plan Name: D07_ORNL_C1_P1_v9_PRM.xml

On-Station Time: 1410 UTC / 1010 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 UTC / 1000 L

Flyority 4

Collection Area: Mountain Lake Biological Station (MLBS)

Flight Plan Name: D07_MLBS_R1_P1_v6_PRM.xml

On-Station Time: 1350 UTC / 0950 L

Crew: Elissa & Ivana