Payload 1 Daily Flight Report

Date: 2023-05-25
Flight Campaign ID: P1C1
Airport, FBO ID, City: Bessemer Municipal Airport - Mitchell Field (KEKY) - Bessemer, AL
Aircraft: N331AR

Domain: 08 (Ozarks Complex)
Sites Flown: DELA_P1 (Dead Lake Priority 1), DELA_P2 (Dead Lake Priority 2)
Days left in Domain: 4

Report Author: Mitch
Lidar Operators: Mitch
Spectrometer Operators: Cameron
Pilots: Will, Justin
Flight Hours: 02:16
Hours until maintenance: 50.47
GPS Instruments: 05 - DELA, 07 - FBO_KEKY

Summary
Cloud-free morning here in D08 was tainted by a heavy haze layer, enough to push our collections into the non-green category. Crew focused on some of the lower priority, less likely to be reflown, lines at DELA before cumulus clouds started building at our flight altitude and forced collections to be aborted.

Concerns

- 2023051513_P1C1 Flight over LENO may need waveform to be re-extracted. Bridget is investigating.
- N331AR has been experiencing excessive vibrations during takeoffs, that appear to be getting worse as the season progresses. Pilots checked tire pressure post flight, but nothing abnormal was noticed.

Comments

- Flight line numbering discrepancies noted between DELA NIS kml and DELA Lidar xml. Crew used lidar numbering which matched the flight plan summaries.
- Coordinated with researchers Hongxing Liu and Yuehan Lu from the University of Alabama who deployed tarps in Demopolis under our Dead Lake flight box.

Daily Coverage

Estimated Cloud Cover Key

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

D08|DELA_P1

Line #	1	19	20	21	22	23	24	25	26
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover									

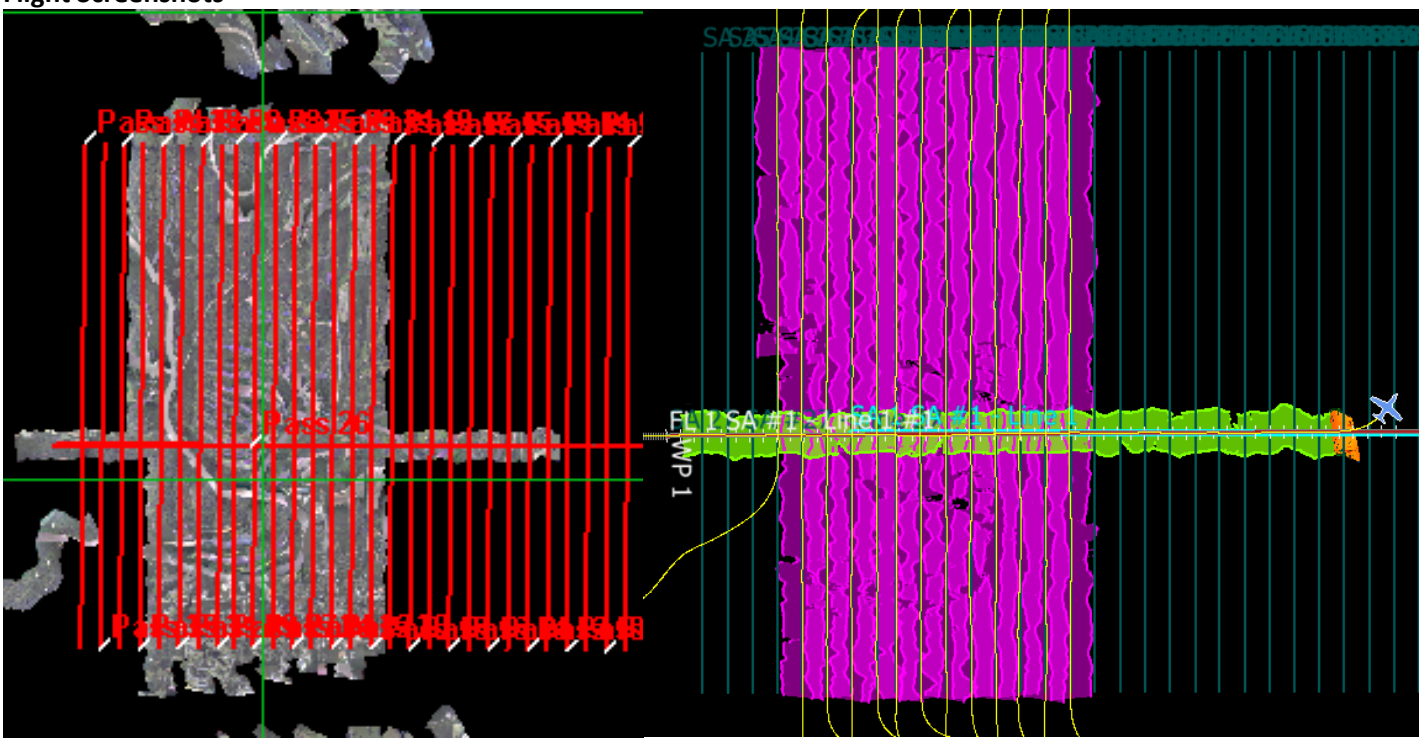
Total number of lines flown: 9

D08|DELA_P2

Line #	28	29	30	31
Lidar	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓
Camera	✓	✓	✓	✓
Cloud Cover				

Total number of lines flown: 4

Flight Screenshots



Pictures: Tarps deployed by University of Alabama researchers in Demopolis.

Above: Heavy haze spoiling an otherwise cloud free morning in D08.

Cumulative Domain Coverage

D08|DELA_P1 (Dead Lake Priority 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															

Flown: 32% (8/25)
Green: 0% (0/25)
Yellow: 0% (0/25)
Red: 32% (8/25)

D08|DELA_P2 (Dead Lake Priority 2)

28	29	30	31	32	33	34	35

Flown: 50% (4/8)
Green: 0% (0/8)
Yellow: 0% (0/8)
Red: 50% (4/8)

D08|LENO (Lenoir Landing)

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															

Flown: 64% (16/25)
Green: 64% (16/25)
Yellow: 0% (0/25)

Red: 0% (0/25)

D08|N08A (D08 Nominal Runway)

1

Flown: 100% (1/1)
Green: 0% (0/1)
Yellow: 100% (1/1)
Red: 0% (0/1)

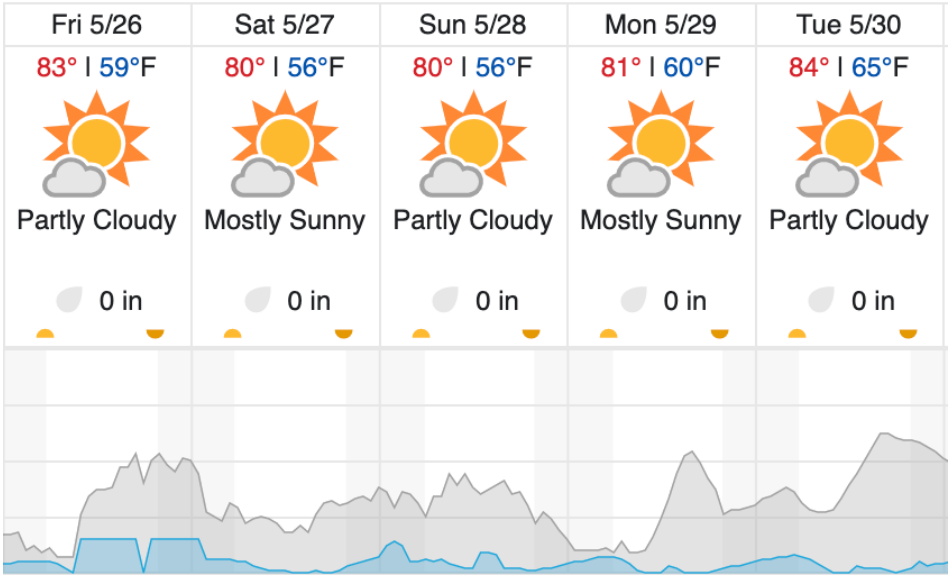
D08|TALL (Talladega National Forest)

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															

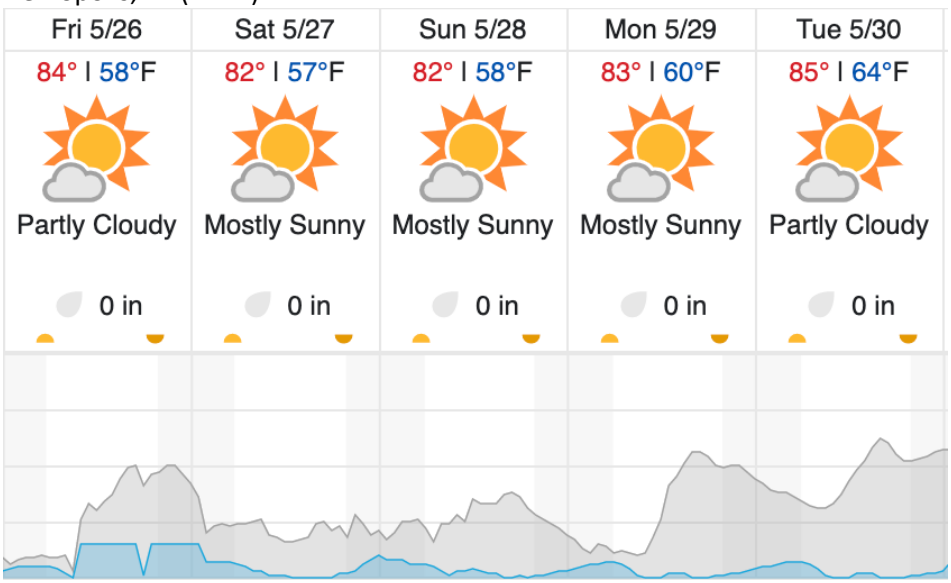
Flown: 0% (0/25)
Green: 0% (0/25)
Yellow: 0% (0/25)
Red: 0% (0/25)

Weather Forecast

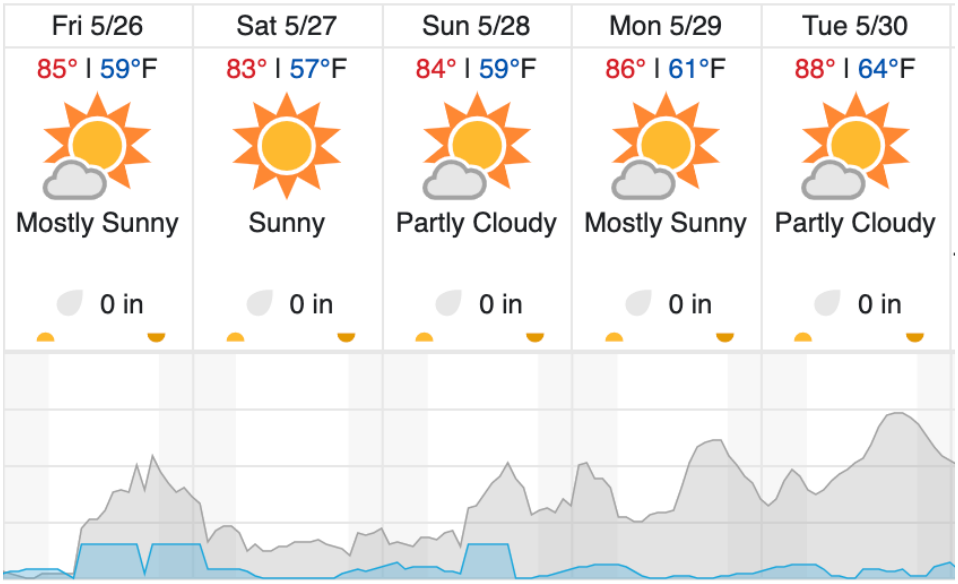
Moundville, AL (TALL)



Demopolis, AL (DELA)



Coffeeville, AL (LENO)



source: wunderground.com

Flight Collection Plan for May 26, 2023

Flyority 1 *(Lines 2-4, 20-26)*
Collection Area: Lenoir Landing (LENO)
Flight Plan Name: D08_LENO_R2_P1_v2_PRM.xml
On-Station Time: 1410 UTC/ 0910 L

Flyority 2
Collection Area: Talladega National Forest (TALL)
Flight Plan Name: D08_TALL_C1_P1_v2_PRM.xml
On-Station Time: 1410 UTC/ 0910 L

Flyority 3
Collection Area: Dead Lake (DELA) – Priority 1 Flight Box
Flight Plan Name: D08_DELA_R1_P1_P2_v2_PRM.xml
On-Station Time: 1410 UTC/ 0910 L

Flyority 4
Collection Area: Dead Lake (DELA) – Priority 2 Flight Box
Flight Plan Name: D08_DELA_R1_P1_P2_v2_PRM.xml
On-Station Time: 1410 UTC/ 0910 L

Crew: Cam (Lidar), Mitch (NIS)