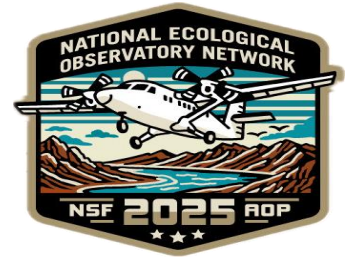




Payload 2 Daily Flight Report



Date: 2025-06-09

Flight Campaign ID: P2C1

Airport, FBO ID, City: Bismarck Municipal Airport (KBIS) - Bismarck, ND

Aircraft: N615AR

Domain: 09 (Northern Plains)

Sites Flown: None

Days left in Domain: 17

Report Author: Elissa

Lidar Operators: Elissa

Flight Hours: 00:00

Spectrometer Operators: Alyssa

Hours until maintenance: 79.10

Pilots: Vince, Jacob

Summary

Last night telemetry alerts indicated that the UPS-1250 drained to empty and the NIS went into safe mode. We went to the hangar to investigate and found the cabin full of smoke. The payload was immediately shut down via the AXE EPO and the GPU was disconnected. Since the foul-smelling electrical smoke did not permit troubleshooting at the time, we closed the NIS chamber and getter and opened the aircraft doors to allow the cabin to ventilate overnight. Today was dedicated to inspection and troubleshooting with no flights planned.

Concerns

A thorough visual inspection of all payload connections was conducted. The AXE was opened and it was discovered that a relay on the ground power circuit had overheated and melted. The faulty switch had been left in the OFF position, so it appears that power was flowing through an incorrect channel, with excess resistance causing the relay to overheat. The root cause the ground switch leaving the circuit closed even in the OFF position is still unknown.

Comments

The vacuum pump was hooked up to the NIS chamber this morning. Andrew is en route to Bismarck with replacement components for the AXE, which will be installed and tested tomorrow.

Cumulative Domain Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (*)

D09 | NOGP (Northern Great Plains)

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: 0% (0/26)

Green: 0% (0/26)

Yellow: 0% (0/26)

Red: 0% (0/26)

* Flown within 35deg solar angle

D09 | WOOD_DCFS (Woodworth and Dakota Coteau Field School)

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						

Flown: 0% (0/54)

Green: 0% (0/54)

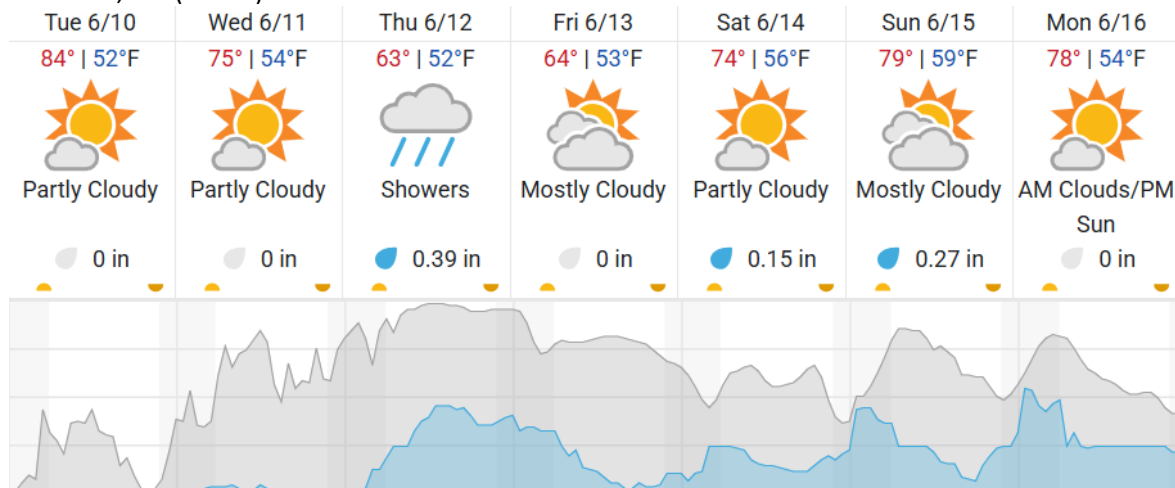
Yellow: 0% (0/54)

Red: 0% (0/54)

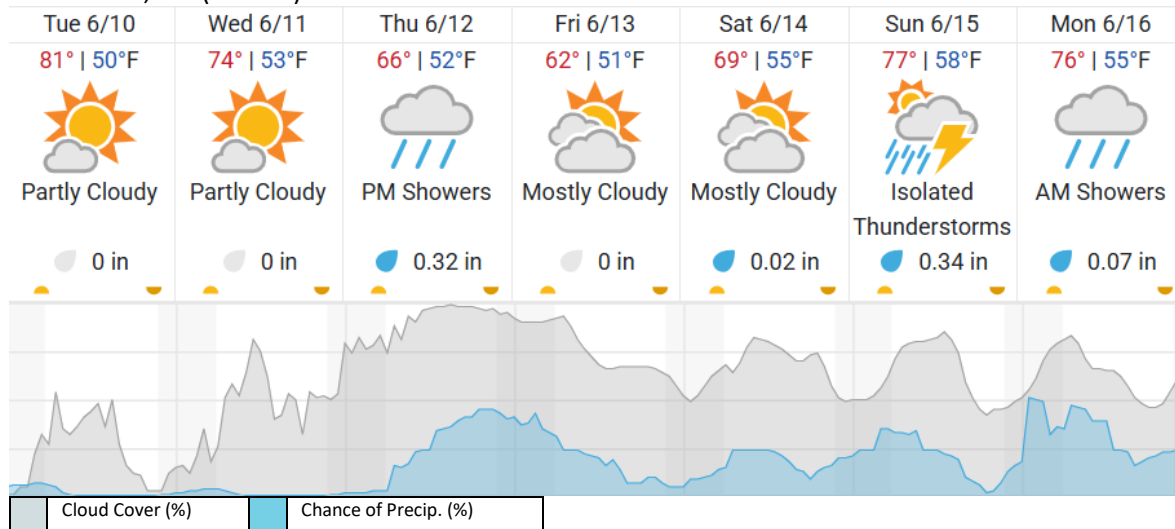
* Flown within 35deg solar angle

Weather Forecast

Bismarck, ND (NOGP)



Jamestown, ND (WOOD)



source: wunderground.com

Flight Collection Plan for 10 June 2025

Repair AXE and pump and cool NIS until back in spec – no flights planned.

Flight Collection Plan for 11 June 2025

Flyority 1

Northern Great Plains (NOGP)

Flight Plan Name: D09_NOGP_R2_P1_v3_VQ780

On-Station Time: (35 degrees): 1440 UTC / 0940 L

Flyority 2

Collection Area: Woodworth (WOOD) – Dakota Coteau Field School (DCFS)

Flight Plan Name: D09_WOOD_DCFS_C1_P1_v5_VQ780

On-Station Time: (35 degrees): 1430 UTC / 0930 L

Flyority 3

Lidar training flight.

Crew: Elissa (Lidar), Alyssa (NIS)