



Payload 3 Daily Flight Report



Date: 2023-07-12

Flight Campaign ID: P3C1

Airport, FBO ID, City: Bozeman Yellowstone International Airport (KBZN) - Belgrade, MT

Aircraft: N934MU

Domain: 12 (Northern Rockies)

Sites Flown: YELL (Yellowstone Northern Range)

Days left in Domain: 8

Report Author: Mitch

Lidar Operators: Mitch

Spectrometer Operators: Mike

Pilots: Justin, Will

Flight Hours: 03:23

Hours until maintenance: 105.85

GPS Instruments: 02 - KBZN, U-MAWY, U-P720

Summary

Crew was able to take advantage of a clear morning over Yellowstone to collect some green data. Before normal science collects occurred, lines 51-52 were reflight with AOP tarps set up and Bridget and Murph collecting ASD measurements on the ground. One additional line (54) was flown prior to the 40o solar angle, and will be reflight if the opportunity presents itself.

Concerns

None

Comments

Replacement equipment (Sherpa and GPU/cord) are working nominally.

Daily Coverage

Estimated Cloud Cover Key

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

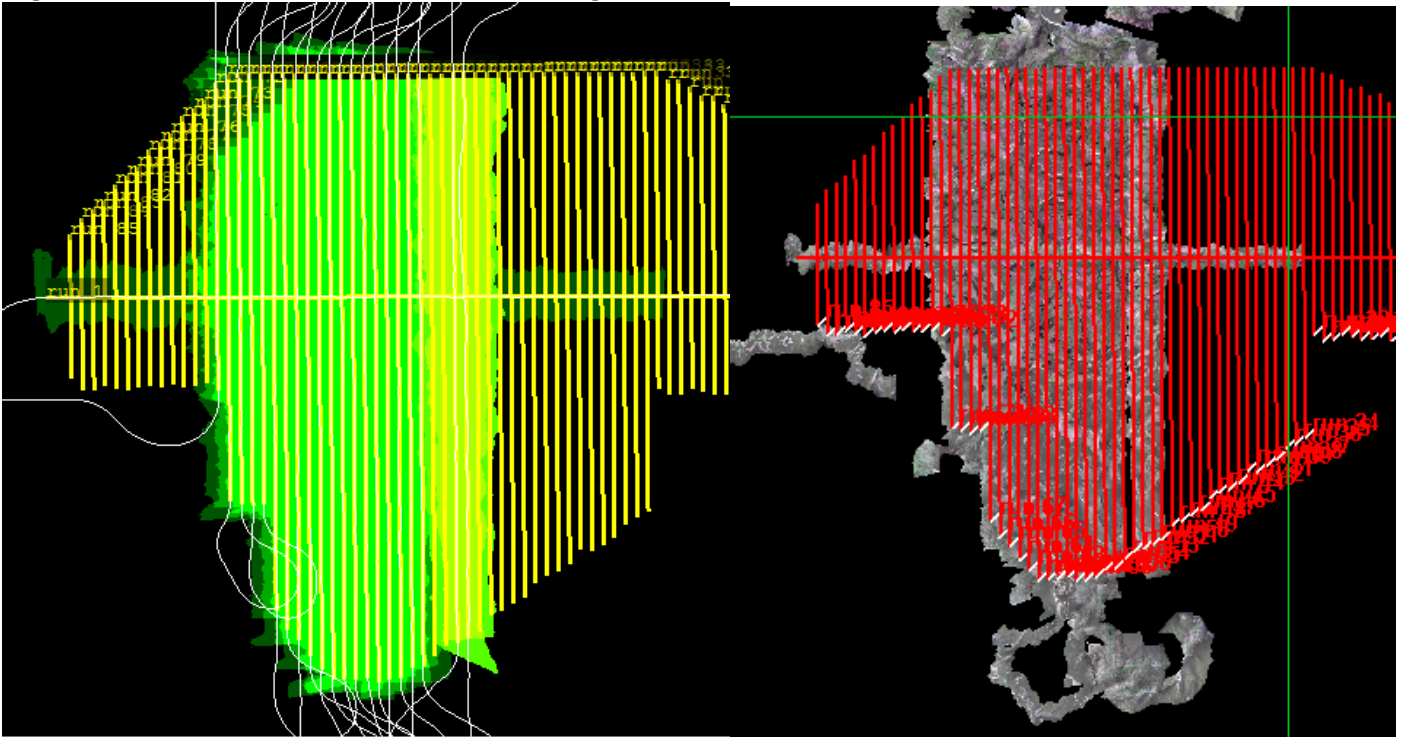
D12|YELL

Line #	50	51	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																				

Line #	72
Lidar	✓
Spectrometer	✓
Camera	✓
Cloud Cover	

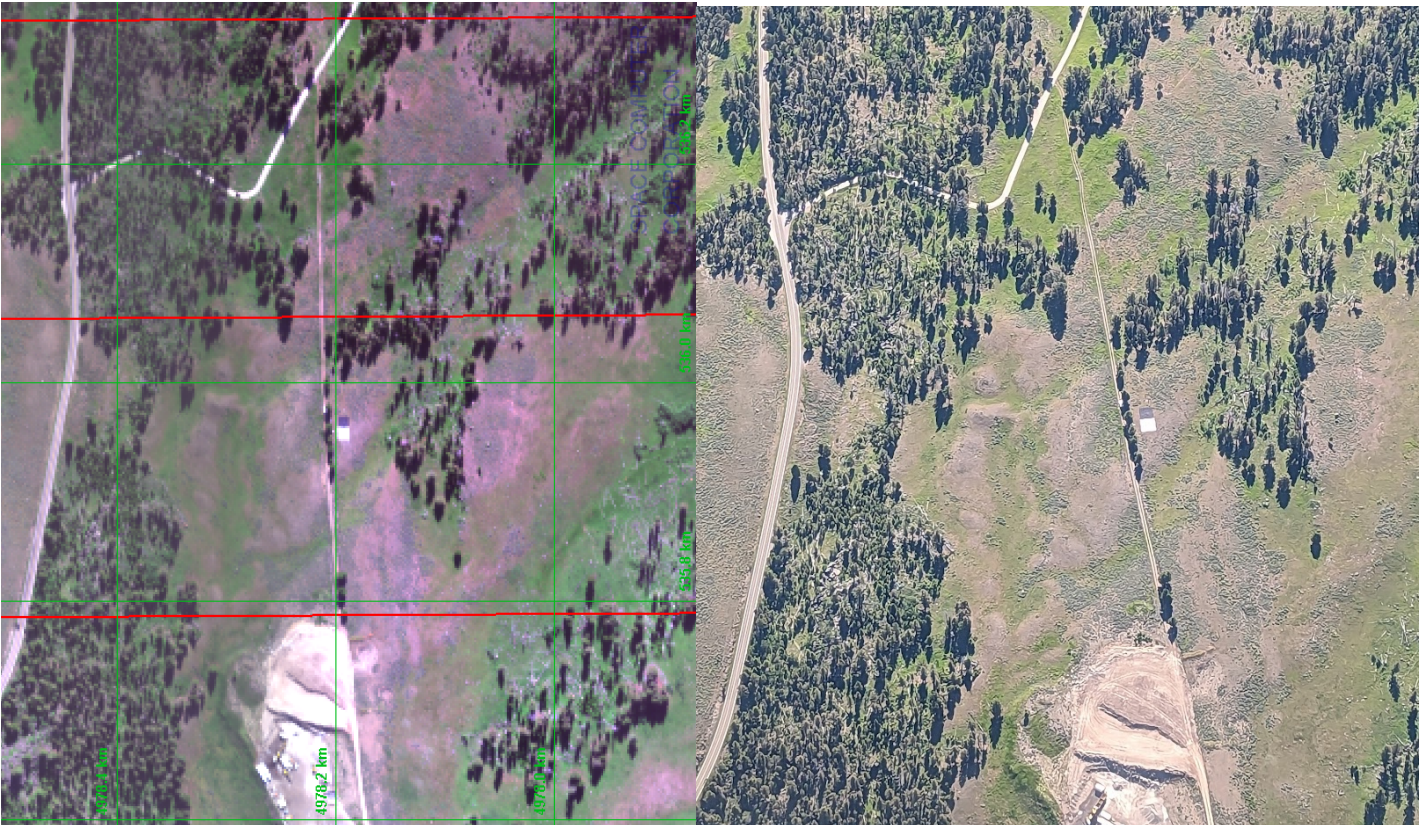
Total number of lines flown: 21

Flight Screenshots: Lidar on the left, NIS on the right

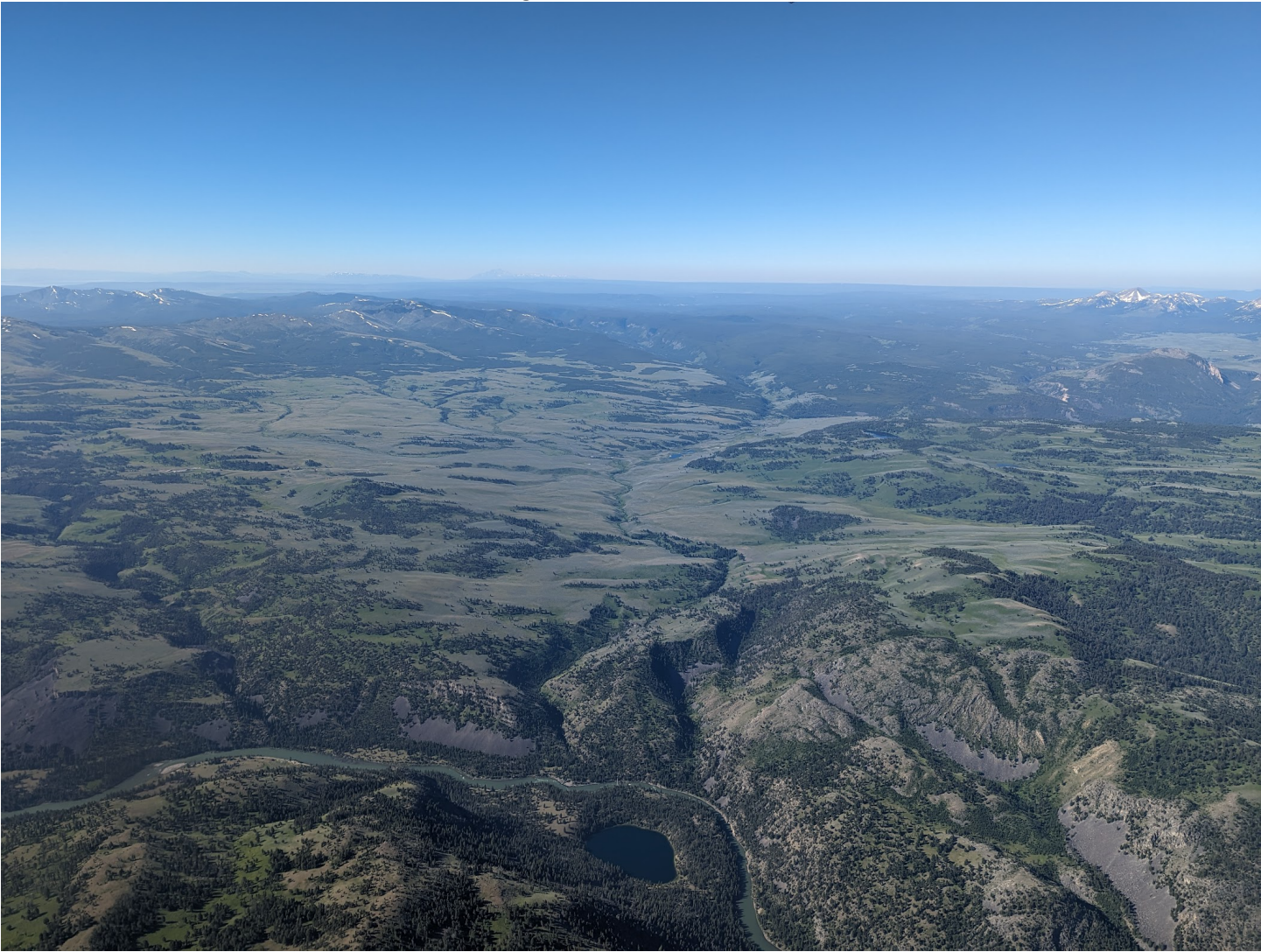


Below left: Screen capture from the NIS MarsRover software of the tarps set up at YELL

Below right: The same tarps captures from a cell phone photo taken from the plane.



Pictures: Clear skies over Yellowstone this morning.



Cumulative Domain Coverage

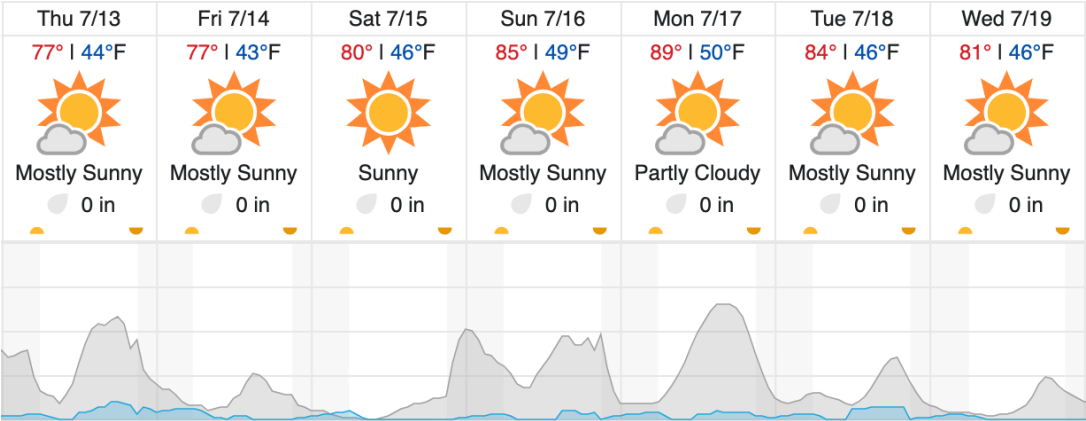
D12 | YELL (Yellowstone Northern Range)

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															

Flown: 35% (30/85)
Green: 33% (28/85)
Yellow: 2% (2/85)
Red: 0% (0/85)

**collected outside of 40° solar angle*

Weather Forecast
Gardiner, MT (YELL)



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

Flight Collection Plan for July 12, 2023

Flyority 1 (If Green)
Collection Area: Yellowstone Northern Range (YELL)
Flight Plan Name: D12_YELL_C1_P1_v3_Q780
On-Station Time: 15:50 UTC/ 09:50 L

Crew: Mike (Lidar), Mitch (NIS)