

Payload 3 Daily Flight Report



Date: 2025-08-02

Flight Campaign ID: P3C1

Airport, FBO ID, City: Portland-Hillsborough Airport (KHIO) - Hillsboro, OR

Aircraft: N821AR

Domain: 16 (Pacific Northwest)

Sites Flown: ABBY (Abby Road), MCRA (McRae Creek)

Days left in Domain: 1

Report Author: Nick

Lidar Operators: Nick Flight Hours: 4:41 (2:00 + 2:41)
Spectrometer Operators: Matt Hours until maintenance: 91.70

Pilots: Mack, Jacob GPS Instruments: AOP_ABBY, U-P385, S-ORHI

Summary

The crew took to the air in promise of dissipating low clouds at ABBY only to be thwarted by a solid low cloud layer over the Portland basin that didn't materialize as forecast. The crew shifted to MCRA and collected the site in green conditions. Following refueling at Hillsboro, the clouds dissipated at ABBY to allow an initial green collect of 13 lines and greening up of an additional 8 lines including the airshed before solar angle elevation limits were reached.

Concerns

Both of today's flights will be extracted upon return to Boulder where additional RAID disks are available. Yesterday's flight failed to fully extract last night due to RAID space and will also be extracted later.

Comments

Jacob rotates out tomorrow. Thanks for all the solid flying! Robert rotates in today. Welcome aboard!

Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (*)

D16|ABBY

Line #	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Lidar	\	✓	✓	\	✓	✓	✓	✓	✓	√	✓	✓	✓	✓	\	\	\	✓	✓
Spectrometer	\	✓	✓	\	✓	✓	✓	✓	✓	√	✓	✓	✓	✓	\	\	\	✓	✓
Camera	✓	√	✓	✓	✓	√	√	✓	√	√	√	√	√	√	✓	✓	✓	✓	√
Cloud Cover																			

Line #	43	44
Lidar	✓	✓
Spectrometer	√	√
Camera	✓	√
Cloud Cover		

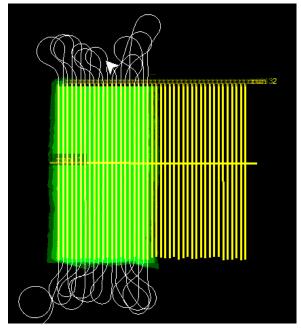
Total number of lines flown: 21

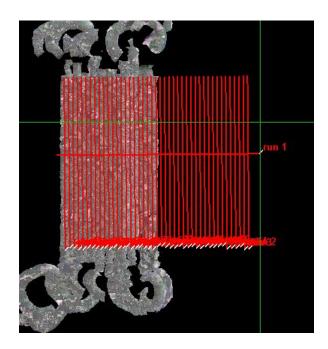
D16|MCRA

Line #	1	2	3	4	5	6	7	8	9
Lidar	√	\	\	\	\	√	√	\	/
Spectrometer	✓	✓	✓	✓	√	✓	✓	✓	✓
Camera	✓	✓	✓	✓	√	✓	✓	✓	✓
Cloud Cover									

Total number of lines flown: 9

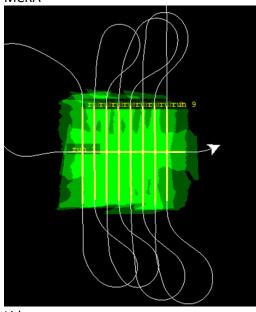
Flight Screenshots ABBY

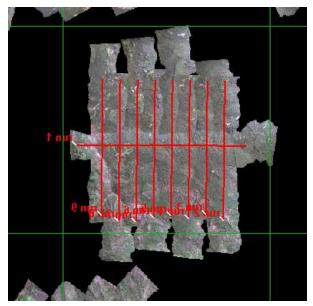




Lidar NIS

MCRA





Lidar NIS

Cumulative Domain Coverage

D16 | ABBY (Abby Road)

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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																

Flown: 100% (44/44) Green: 48% (21/44) Yellow: 43% (19/44) Red: 9% (4/44)

* Flown within 35deg solar angle

D16 | MCRA (McRae Creek)

1	2	3	4	5	6	7	8	9

Flown: 100% (9/9) Green: 100% (9/9) Yellow: 0% (0/9) Red: 0% (0/9)

D16 | WREF P1 (Wind River Experimental Forest Priority 1)

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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			

Flown: 100% (57/57) Green: 98% (56/57) Yellow: 2% (1/57) Red: 0% (0/57)

^{*} Flown within 35deg solar angle

^{*} Flown within 35deg solar angle

D16 | WREF_P2 (Wind River Experimental Forest Priority 2)

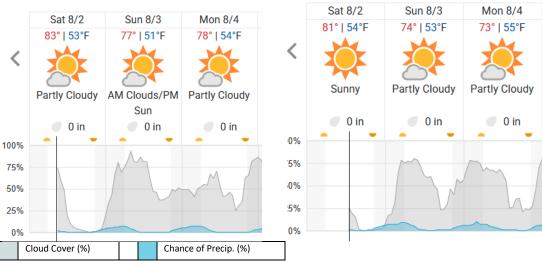
58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77
78	79																		

Battleground, WA (WREF, ABBY)

Flown: 100% (22/22) Green: 0% (0/22) Yellow: 100% (22/22) Red: 0% (0/22)

Weather Forecast

Hillsboro, OR (KHIO)



source: wunderground.com

Flight Collection Plan for 3 August 2025

Flyority 1

Collection Area: Abby Road (ABBY)

Flight Plan Name: D16_ABBY_R1_P1_v3_Q780

On-Station Time: 1650 UTC / 0950 L

Flyority 2

Collection Area: Wind River Experimental Forest (WREF) P2

Flight Plan Name: D16_WREF_C1_P2_v3_Q780

On-Station Time: 1650 UTC / 0950 L

Crew: Matt (Lidar), Nick (NIS)

^{*} Flown within 35deg solar angle