



July 12, 2018 Payload 3 Daily Flight Report



Date: 2018-07-12

Flight Campaign ID: 2018_P3C1

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

Domain: 16

Sites Flown: WREF_P1 (Wind River Experimental Forest Priority 1), WREF_P2 (Priority 2)

Days left in Domain: 13

Report Author: Mitch Haynes

Flight Crew: Mitch Haynes, Cameron Chapman

Ground/GPS: Heather Rogers

Pilots: Mike Francis, Gina Moore

Additional Personnel:

GPS Instruments: 08 - FBO_KHIO, 09 - WREF

Flight Hours: 04:40

Hours until maintenance: 52.38

Summary

Perfectly clear skies across the region allowed the crew the remainder of the Wind River flight box (Priority 1 and 2) under green conditions.

Concerns

- Flight lines with the WREF Priority 1 and WREF Priority 2 flight plans appear to heavily overlap: P1_57 with P2_14 and P1_23 with P2_13. Unclear if this is intentional.
- Lines 23-28 of the Priority 1 flight plan was having issues with eye safety shutoffs due to a ridgeline near the southern ends of these lines. Ended up flying these portions about 100 ft higher to avoid these shutoffs.

Comments

- Completed WREF_P1 lines 23-30 and WREF_P2 lines 1-25 under green conditions.
- RAID 2018_P3C1_13 was shipped back to Denver.
- Tomorrow is a crew rotation day; Mitch Haynes departs and Abe Morrison arrives. No flights are planned.

Daily Coverage

| D16 WREF_P1 | Line | SpecG | SpecY | SpecR | NIS | Lidar | Camera | Cumulative |
|---------------|----------|-------|-------|-------|-----|-------|--------|------------|
| | 23 | | | | ✓ | ✓ | ✓ | NLC |
| | 24 | | | | ✓ | ✓ | ✓ | NLC |
| | 25 | | | | ✓ | ✓ | ✓ | NLC |
| | 26 | | | | ✓ | ✓ | ✓ | NLC |
| | 27 | | | | ✓ | ✓ | ✓ | NLC |
| | 28 | | | | ✓ | ✓ | ✓ | NLC |
| | 29 | | | | ✓ | ✓ | ✓ | NLC |
| | 30 | | | | ✓ | ✓ | ✓ | NLC |
| Flown: | 8 | | | | | | | |
| D16 WREF_P2 | Line | SpecG | SpecY | SpecR | NIS | Lidar | Camera | Cumulative |
| | 1 | | | | ✓ | ✓ | ✓ | NLC |
| | 2 | | | | ✓ | ✓ | ✓ | NLC |
| | 3 | | | | ✓ | ✓ | ✓ | NLC |
| | 4 | | | | ✓ | ✓ | ✓ | NLC |

| | | | | | | | | |
|--------|----|--|--|--|---|---|---|-----|
| | 5 | | | | ✓ | ✓ | ✓ | NLC |
| | 6 | | | | ✓ | ✓ | ✓ | NLC |
| | 7 | | | | ✓ | ✓ | ✓ | NLC |
| | 8 | | | | ✓ | ✓ | ✓ | NLC |
| | 9 | | | | ✓ | ✓ | ✓ | NLC |
| | 10 | | | | ✓ | ✓ | ✓ | NLC |
| | 11 | | | | ✓ | ✓ | ✓ | NLC |
| | 12 | | | | ✓ | ✓ | ✓ | NLC |
| | 13 | | | | ✓ | ✓ | ✓ | NLC |
| | 14 | | | | ✓ | ✓ | ✓ | NLC |
| | 15 | | | | ✓ | ✓ | ✓ | NLC |
| | 16 | | | | ✓ | ✓ | ✓ | NLC |
| | 17 | | | | ✓ | ✓ | ✓ | NLC |
| | 18 | | | | ✓ | ✓ | ✓ | NLC |
| | 19 | | | | ✓ | ✓ | ✓ | NLC |
| | 20 | | | | ✓ | ✓ | ✓ | NLC |
| | 21 | | | | ✓ | ✓ | ✓ | NLC |
| | 22 | | | | ✓ | ✓ | ✓ | NLC |
| | 23 | | | | ✓ | ✓ | ✓ | NLC |
| | 24 | | | | ✓ | ✓ | ✓ | NLC |
| | 25 | | | | ✓ | ✓ | ✓ | NLC |
| Flown: | 25 | | | | | | | |

Cumulative Domain Coverage

ABBY

| | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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: 0% (0/44)
 Green: 0% (0/44)
 Yellow: 0% (0/44)
 Red: 0% (0/44)

WREF_P1

| | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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: 105% (60/57)
 Yellow: 0% (0/57)
 Red: 0% (0/57)

WREF_P2

| | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| 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 | | | | | | | | | | | | | | | |

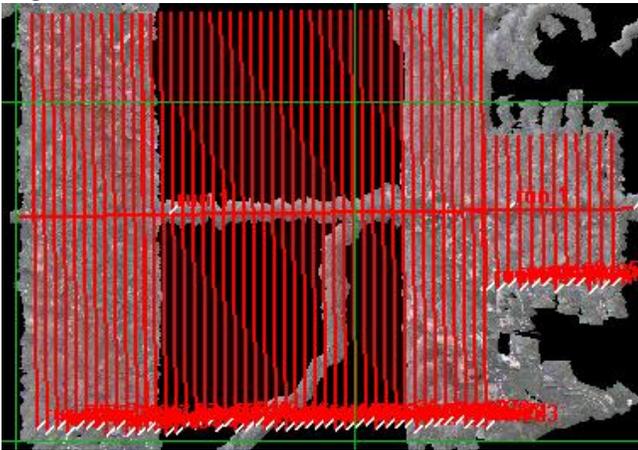
Flown: 100% (25/25)
 Green: 100% (25/25)
 Yellow: 0% (0/25)
 Red: 0% (0/25)

MCRA

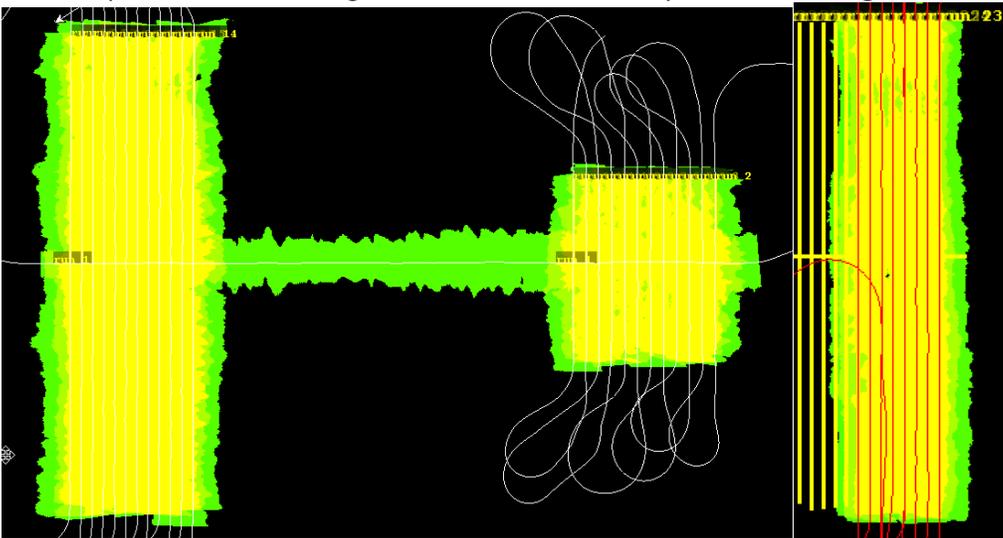
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|

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

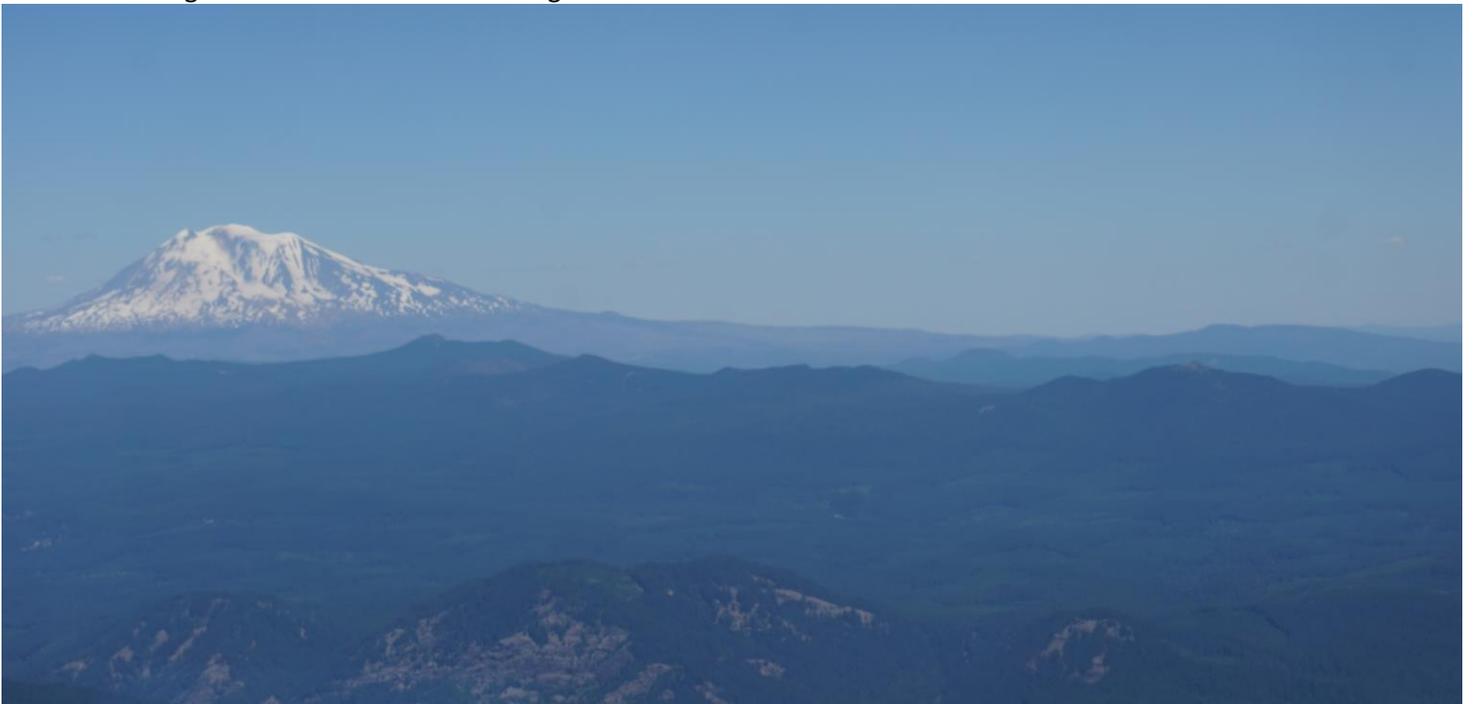
Flight Screenshots



Above: Spectrometer Coverage Below Left: Lidar Priority 2 Box Below Right: Rest of lidar priority 1 box

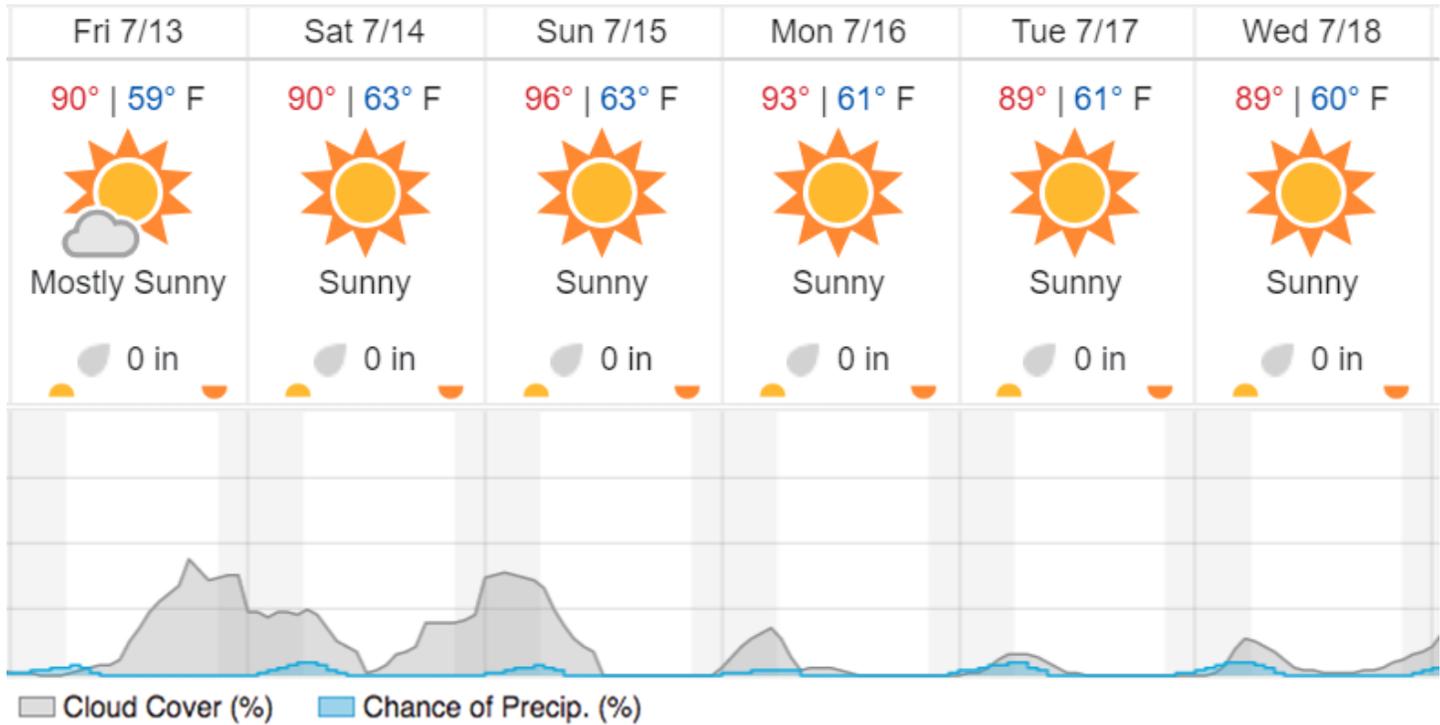


Pictures Looking east across the Wind River flight box with Mt Adams visible in the distance



Weather Forecast

Vancouver, WA



Flight Collection Plan for 13 July 2018

Crew Rotation Day – No Flights Scheduled

Abe Morrison IN; Mitch Haynes OUT

Flight Collection Plan for 14 July 2018

Flyority 1:

Collection Area: Abby Road (ABBY)

Flight Plan Name: D16_ABBY_R1_P1_v2_Q780

On-station Time: 1640 UTC / 0940 L

Flyority 2:

Collection Area: McRae Creek (MCRA)

Flight Plan Name: D16_MCRA_backgnd, Klamath_Falls_SEC_98_MCRA

On-station Time: 1640 UTC / 0940L

Crew: Heather Rogers (Lidar), Cameron Chapman (NIS), Abe Morrison (Ground)