This is your quasi-daily update on the 2023 ABoVE Airborne Campaign

### Tuesday 11 July 2023

Chip Miller is in Italy.
Peter Griffith is in Fairbanks.

NASA ABoVE will conduct coordinated airborne and fieldwork in 2023. AVIRIS flights will be flown in Alaska and Canada during the months of July and August. Flights have been planned in coordination with NASA-funded investigators, PIs of affiliated projects, and representatives of Partner Organizations. The L-band SAR and G-LiHT instruments are planned to fly in 2024. ABoVE will coordinate with the AWI Perma-X Flight Campaign and NEON AOP teams.

More information may be found on the summary page for the <u>ABoVE 2023 Airborne</u> <u>Campaign</u>

#### Sensor/Aircraft Summaries and Look Ahead

## **AVIRIS-3 (Dynamic Aviation B-200 N53W)**

July 7-8: AVIRIS flew the Yosemite fire scar Friday and Saturday.

July 9: Data analysis indicated that new ATLANS GPS/INS navigation system was not working properly.

July 10: Test flight over Yosemite cut short because the nav system is still not working properly.

July 11-14: Continue integration and testing of the nav system. We will send a status update late Friday.

July 15: Earliest departure for Fairbanks.

July 16: Earliest science flights from Fairbanks.

- Priority 1 = Deadhorse/Barrow Areas
- Priority 2 = YK Delta
- Priority 3 = Interior AK/Fairbanks Area
- Priority 4 = Inuvik and Trail Valley NWT

## Perma-X Flight Campaign (<u>AWI Polar 6</u>)

July 2: Polar 6 arrived in Inuvik.

July 5: Wednesday marked the much-anticipated first day of flying, and we're delighted to report that the data acquisition went smoothly. We followed the Inuvik-

Tuktoyaktuk Highway towards the Arctic Ocean, capturing super- high-resolution images and LiDAR point clouds. With this data, we continue the time series (first captured in 2018) for monitoring infrastructure in a thawing Arctic. We also managed to gather a comprehensive dataset over the town of Inuvik, which will be of highest value for the town's urban development. 2023-07-06:

Down day due to tech issues. We used that day for setting up ground targets along the Dempster Highway S of Inuvik

#### 2023-07-07:

Full day flight to the Peel Plateau (Willow River) west of the Mackenzie Delta. Two large grids of Thaw Slump areas and parts of the Delta. One overflight over Aklavik.

#### 2023-07-08:

Short flight along the Dempster Highway between Inuvik and Tsiigehtchic. We had one grid north of Tsiigehtchic. Smoky day in the south with increasing intensity. Returned early due to thickening smoke and weather warning in Inuvik (Thunderstorms, heavy showers).

#### **Plans**

2023-07-09:

heading south/south-east today

2023-07-10

likely going north, weather clearing up there after few bad days

#### **NEON Airborne Observation Platform #1**

NEON plans to base their <u>AOP Payload 1</u> in Fairbanks Alaska, **13 July to 21 August**, 2023, to fly NEON Domain 18. If you are interested in tracking NEON's 2023 season, <u>sign up to receive daily flight report emails by NEON Domain</u> or visit their <u>flight report archive</u>. Please note, you will only receive emails during the time period the AOP is in the Domain you have signed up to follow.

#### Weather Forecast: ABoVE Domain

GEOS-FP for ABoVE: https://fluid.nccs.nasa.gov/missions/mission ABOVE/

Windy weather visualization: <a href="https://www.windy.com/">https://www.windy.com/</a>

FAA Weather Cameras – Interactive map with Alaska and Canadian

cameras: weathercams.faa.gov

Note that the Barrow airport weather cam system is down until further notice

July 10: The western half of the North Slope and Interior Alaska are heavily overcast. The North Slope around Deadhorse east to Inuvik have partly cloudy to clear skies. See GOES IR image below.

#### Fire activity

There are 17 active fires reported in Alaska. There are a few SW of Fairbanks and around Delta Junction, but none large enough to have a significant impact.

July 10: Fairbanks AQI = 8 (Good) <a href="https://www.iqair.com/us/usa/alaska/fairbanks">https://www.iqair.com/us/usa/alaska/fairbanks</a>
Note at this time in 2022, AQI was >160 for days on end

There are numerous active fires in Northwest Territories having significant impact on air quality in our areas of flight interest around Great Slave Lake and Scotty Creek.

Canadian FireSmoke Forecasts <a href="https://firesmoke.ca/forecasts/current/">https://firesmoke.ca/forecasts/current/</a>

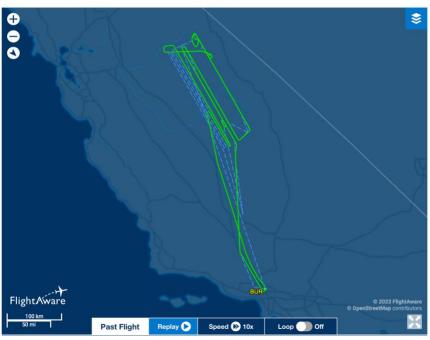
#### **BBQ Forecast**

J. Watts and K. Miner teams are confirmed to both be in Fairbanks next week. Accordingly, ABoVE is elevating the BBQ Watch to a **BBQ Warning for Monday 17 July. A warning means you should prepare a dish to share and go to the ABoVE logistics office at 17:30 local time.** ABoVE issues a BBQ Watch when there is an increased risk for conditions that may be capable of producing a BBQ. ABoVE issues a BBQ Warning when the probability of a BBQ is near-certain.

If you do not wish to receive the daily airborne briefing, you may unsubscribe at any time by sending an email

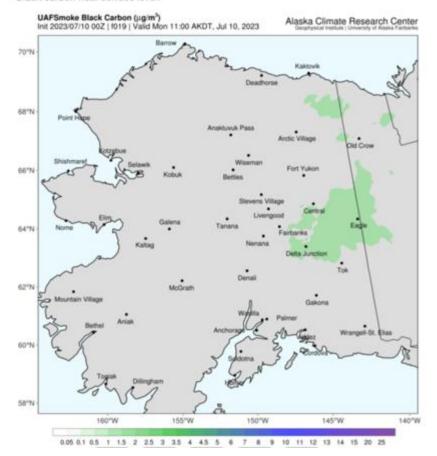
to <a href="mailto:support@cce.nasa.gov">support@cce.nasa.gov</a> with "Unsubscribe Airborne Daily" as the subject.

# AVIRIS test flight 10 July N53W flight schedule

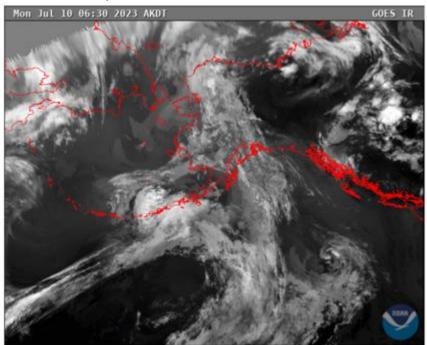


## **UAF Smoke 10 July**

Black carbon near surface level.



## GOES IR 10 July



Canada FireSmoke 10 July

