

Significant Meteorological Information (SIGMET)

A SIGMET is reserved for the most significant weather, issued when the weather is expected to affect the safety of aircraft operations for all pilots. A SIGMET is issued for the following conditions:

- Severe-extreme turbulence, and icing
- Volcanic eruption, and airborne volcanic ash
- Tornadoes
- Thunderstorms (including those embedded in precipitation), and hail $\geq \frac{3}{4}$ " in diameter

SIGMETs are issued when conditions are occurring or expected to occur, and are valid for up to four hours.

Airmen's Meteorological Information (AIRMET)

AIRMETs are included in Area Forecasts for the following conditions in the next 8 hours:

- Moderate icing, turbulence and LLWS
- Sustained surface winds ≥ 30 kt
- IFR ceilings (< 1000 ft) and/or visibilities ($< 3SM$)
- Extensive Mountain Obscurations

Area Forecasts (FA)

The FA is a 12 hr summary of forecast weather over a large-scale, and a 6 hr outlook forecast. FA's include AIRMETs, clouds and weather, select mountain pass forecasts, as well as icing and turbulence forecasts. Since the FA is text based and intended to summarize the weather over a broad area, it may not include localized hazardous situations which affect aircraft operations.

Area Forecasts are typically issued 3 times daily at **4:15am**, **12:15pm**, and **8:15pm**. FA's include the following conditional terms used to FA's to indicate areal coverage of clouds and visibility obstructions:

- **ISOL** (isolated): Conditions expected over an area less than 3,000 square miles, or for less than 50% of the forecast period.
- **OCNL** (occasional): Conditions expected over an area of at least 3,000 square miles, or greater than 50% of the forecast period.

The following terms will be used to indicate areal coverage for showers and thunderstorms:

- **ISOL** (isolated): Less than 25% of the area is affected.
- **SCT** (scattered): 25-50% of the area is affected.
- **WDSPRD** (widespread): More than 50% of the area is affected.

Terminal Aerodrome Forecasts (TAF)

Produced at the Anchorage, Fairbanks, and Juneau Forecast Offices, a TAF is a forecast of weather conditions expected to occur at an airport, or within 5 nautical miles. They are issued for 39 airports in Alaska, and are issued only when routine observations are available. TAF's are issued 4 times daily (00z, 06, 12z and 18z) for a 24-hour period, and updated as needed.



How can you can help??? PIREPs!!!!

Pilot Reports (PIREPs) are a critical data source for aviation weather forecasting! PIREPs should be relayed from pilots to the FAA whenever possible for use in your forecasts. Since observations are so sparse in Alaska, your PIREP will help fill data gaps and increase forecast accuracy.

Aviation Weather Services in Alaska

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
Alaska Aviation Weather Unit



This publication is designed to help you make the best use of National Weather Service aviation weather resources covering Alaska. All products can be found by going directly to the Alaska Aviation Weather Unit at weather.gov/aawu.

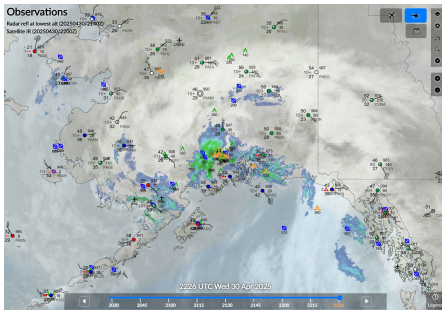
Alaska Aviation Weather Unit (AAWU)
6930 Sand Lake Road
Anchorage, AK 99502
www.weather.gov/aawu/



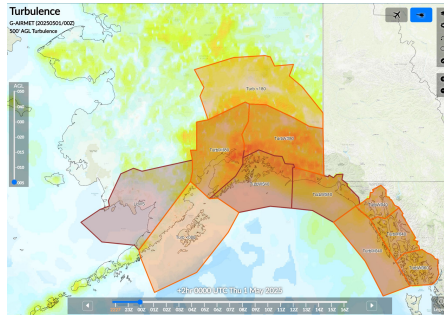
Graphical Forecasts for Aviation (GFA)

aviationweather.gov/gfa

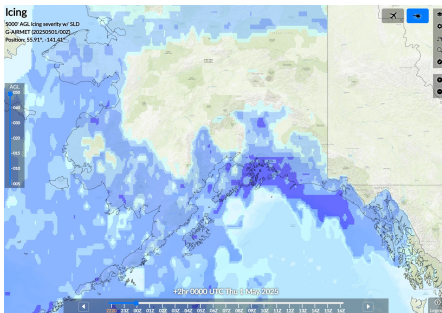
The Graphical Forecasts for Aviation (GFA) is intended to provide the necessary aviation weather information to give users a complete picture of the weather that may impact your flight. GFA includes observations, forecasts, and warnings that can be viewed from 18 hours in the past to 18 hours in the future. Hourly model data and forecasts, including information on clouds, flight category, precipitation, icing, turbulence, wind, and graphical output from the National Weather Service's National Digital Forecast Data (NDFD), are available. A low altitude mode is also available, focused on flight operations under 5000 ft. Built with modern web based tools, users can pan and zoom to focus on areas of greatest interest on computers or mobile devices.



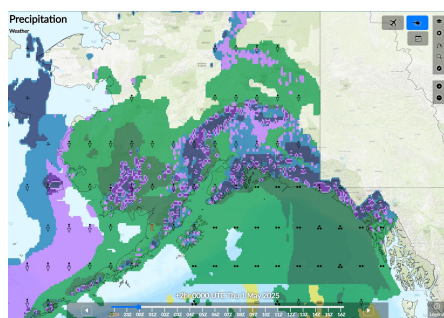
Current conditions



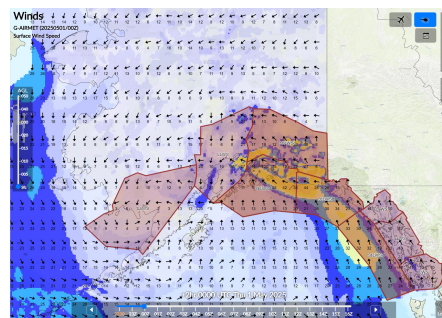
Turbulence



Icing



Precipitation and Thunderstorms



Winds and temperatures aloft

Access GFA from
your mobile device
aviationweather.gov/gfa

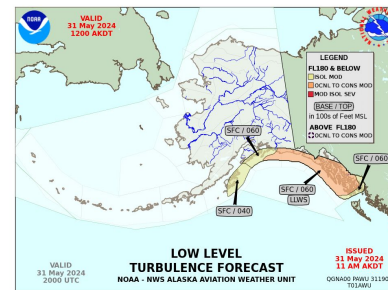


AAWU Graphical Forecasts

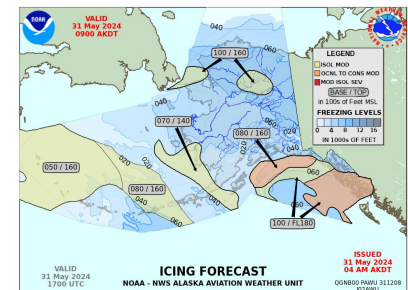
weather.gov/aawu

Graphical forecasts are produced by the AAWU to predict the conditions described in the text Area Forecast in more detail. This includes icing, low-level and high-level turbulence, flight category (IFR and MVFR), and strong surface winds. Additionally, convective outlook graphics are produced for Thunderstorm activity during the summer months from May 1 - September 30. Significant Weather graphics (SigWx) are also produced to provide a 24 to 60 hour outlook of Flight Category, Freezing Level, low-level Turbulence, and Thunderstorm activity.

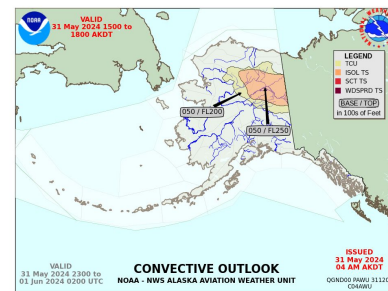
Graphical forecasts are routinely updated throughout the day, or when significant changes to the weather conditions occur. Here are samples of these graphical forecasts:



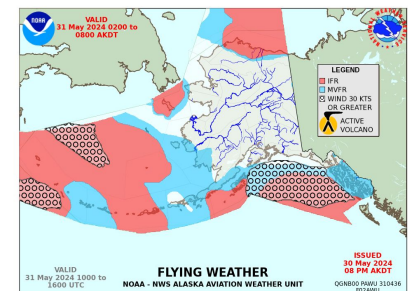
3 hr low-level turbulence forecasts



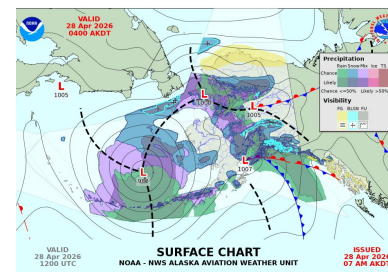
3 hr icing forecast



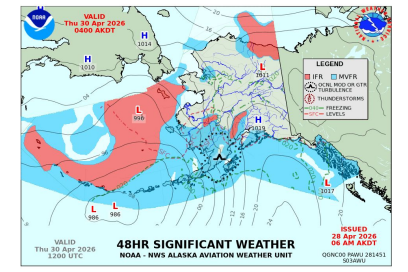
Convective Outlook
Convective showers and thunderstorms
Issued May-Sept



Flying Weather
MVFR and IFR conditions, and surface
winds ≥ 30 kt



Surface Chart
Large-scale weather systems, fronts, and
areas of precipitation



Significant Weather
24-60 hour outlook of flight categories,
freezing levels, turbulence and
thunderstorms