

## AASF Safety Spot – July 2022

By Marshall Severson, AASF Board



- Weather symbol for smoke, abbreviation FU

Hello, it has been a hot early summer with lots of VFR weather over some of the state (outside of the smoke that inevitably results from the wildfires which increased dryness brings). Being prepared for flight during this period requires some special attention, especially going VFR. Here are some thoughts on awareness tools to avoid smoky IMC flight hazards.

Go – No Go considerations: Get an outlook or standard briefing online or via Flight Service.

Check current conditions and weather advisories thoroughly to determine whether the smoke is affecting your intended route of flight, that means not only METARS, but weather cams, satellite imagery and especially PIREPS. The Aviation Weather Center allows for checking PIREPS up to 36 hours old to provide some trend info: <https://www.aviationweather.gov/airep/data?id=fai&distance=200&format=raw&type=&age=36>

Below is a PIREP that indicates some serious Fumar (smoke in English) visibility (one mile and no ground contact) issues:

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FAI UA /OV FAI180010/TM 1600/FL042/TP C208/WX FV01SM FU000-  
TOP042/RM NO GND CTC ABV 025 /AKFSS/
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Check synoptic information for pressure systems such as thermal troughs and high pressure systems aggravating movement of smoke; review as well TAFs and winds aloft forecasts to understand potential clearing or increased smoke densities associated with terrain/flow interactions and possible unforecast smoke inundation until the fires diminish. You may experience significant differences in reduced visibility due to smoke even flying a local airport traffic pattern. The more you are familiar with the topography, the better you will understand their impacts on smoke movement. In Alaska, some mountain passes have forecast information disseminated by NWS in their area forecasts, make sure to check this resource.

The longtime favorite “Alaska Weather” program is available via several broadcast and streaming options, here is a link to get forecast info direct from NWS forecasters daily: <https://www.youtube.com/user/akwxtv/videos>

Please be aware that the categorical aviation weather forecasts aren’t necessarily “tuned” to include the effects of smoke from wildfires. Make use of the resources mentioned here and other reliable sources you are confident with to try and understand the extent of smoky conditions associated with the extensive fires that are raging in parts of the state this summer.

NWS Alaska Fire Weather Watch/Warning Information is available via this link:  
<https://www.weather.gov/arh/fire>

The Alaska Interagency Coordination Center has volumes of status and predictive information: <https://fire.ak.blm.gov/>

Temporary Flight Restrictions (TFR). Check early and often, they can be somewhat fluid in area and altitudes as well as issued on short notice to ensure safe operation of fire suppression activity. Contact phone numbers and frequencies are generally listed. <https://tfr.faa.gov/tfr2/list.html>

Choose an alternate route or wait for better conditions if it appears VFR flight is doubtful. Sometimes it is not going to be possible to launch VFR until something changes or you have an upwind route from the fire(s).

If conditions favor a “Go” decision:

Fly with lights on, make position reports and CTAF calls to help avoid mid-air incidents, give and request PIREPs along the way, and always file a flight plan to ensure prompt response by search and rescue should the need arise.

See the smoke plumes on this NASA image?



[https://eoimages.gsfc.nasa.gov/images/imagerecords/150000/150056/alaskasmoke\\_vir\\_s\\_2022182\\_lrg.jpg](https://eoimages.gsfc.nasa.gov/images/imagerecords/150000/150056/alaskasmoke_vir_s_2022182_lrg.jpg)

## Chart Supplement Alaska Modernization

AASF participated in the FAA's Alaska Chart Supplement Working Group and provided input that was finalized in May 2022, with a Recommendation Paper.

FAA plans to use the recommendations to serve as a guide for improving the usability of the Alaska Supplement (Salmon Book).

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### NTSB Recommendation on Carbon Monoxide (CO) Detectors

“Require Carbon Monoxide Detectors in Certain General Aviation Aircraft “, (Jan 2022). NTSB recommends for the second time that the FAA implement general aviation carbon monoxide detector mandates, citing 23 fatal plane crashes caused by CO leaks since 1982.

<https://www.nts.gov/investigations/AccidentReports/Reports/AIR2201.pdf>

Signs and symptoms of carbon monoxide poisoning may include: 1. **Dull headache** 2. **Weakness** 3. **Dizziness** 4. **Nausea or vomiting** 5. **Shortness of breath** 6. **Confusion** 7. **Blurred vision** 8. **Loss of consciousness.** --Mayo Clinic

A pilot who detects the odor of exhaust or experiences symptoms of headache, drowsiness, or dizziness while using the heater should suspect carbon monoxide poisoning, and immediately shut off the heater and open air vents. If symptoms are severe or continue after landing, medical treatment should be sought. --FAA Aeronautical Information Manual, paragraph 8-1-c.

<https://www.aasfonline.org/wp-content/uploads/Carbon-Monoxide-NTSB-Safety-Alert.pdf>

There are numerous and various types of CO detectors available for convenient use in aircraft. Please don't leave terra firma without one!

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### Density Altitude Reminder:

In the above normal and sometimes record setting temperatures affecting much of the state this summer, density altitude is a factor you must consider anew when operating in certain areas. You will notice a difference in performance. Better to check beforehand than experience any negative effects unprepared.

Density Altitude Calculator

[https://www.weather.gov/epz/wxcalc\\_densityaltitude](https://www.weather.gov/epz/wxcalc_densityaltitude)

The calculator needs elevation, as well as station pressure and temperature/dewpoint info which can be gotten from the METARs on this site.

<https://aviationweather.gov/metar/data?ids=pafa&format=decoded&date=&hours=0>

Safe/Happy Flying!