



The Front



NOAA's National Weather Service

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NWS Aviation Services Branch Updates "A Pilot's Guide to Aviation Weather Services"

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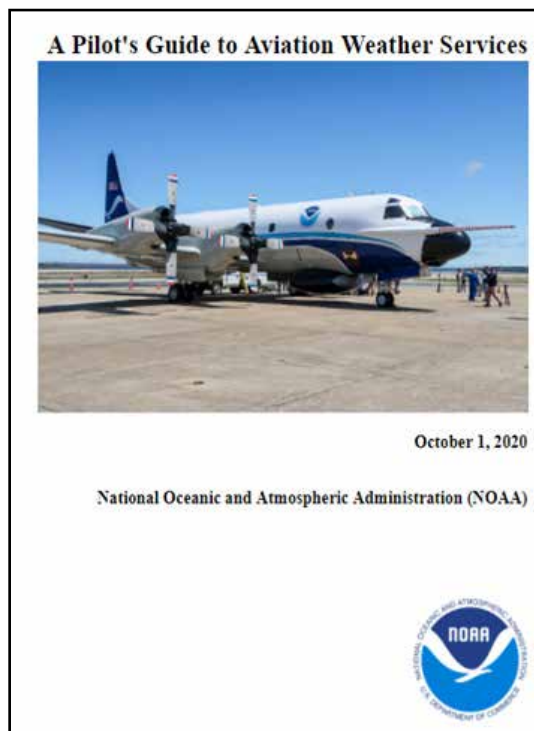
The NWS Aviation Services Branch has just released an updated version of "A Pilot's Guide to Aviation Weather Services." Available online now, this is a complete rewrite of the long-standing guide and the first update since 1993.

NWS published the last significant update to the guide in May of 1993. Older versions of the handy guide are floating around NWS webpages and other aviation websites. The NWS suite of aviation products and services has changed dramatically since the early 1990s.

Pilot weather briefings have changed and evolved (e.g., 1-800-WX-BRIEF). Manual aviation weather observation are long gone. Transcribed Weather Broadcast routes (TWEB) are things of the past. Almost all conversion tables and calculators have been replaced by aviation apps and handheld devices. And of course, the internet exists in its enormity.

This summer, a group of NWS meteorologists organized every NWS aviation product available online into logical categories. This information then became an updated one-stop-shop reference for pilots and users of aviation weather information. The new guide covers 41 different products and tools. The guide is broken down as follows:

- ◆ Section 1 describes the purpose and scope of the handy guide.



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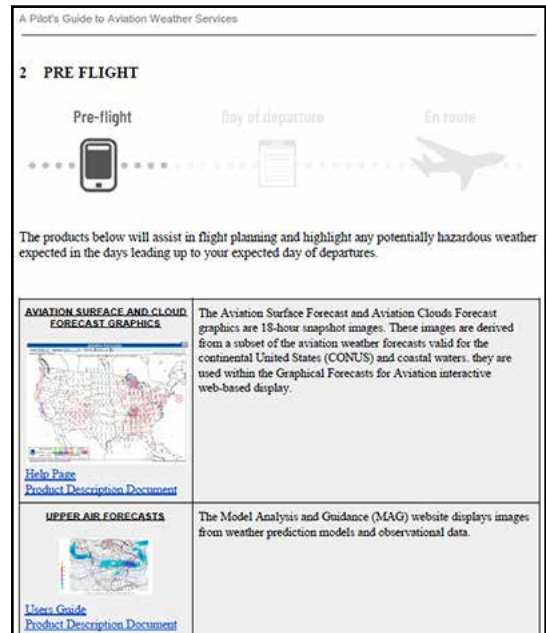
The Front

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When's the Next Front?

Would you like an email when a new edition of **The Front** is published? Write melody.magnus@noaa.gov.

- ◆ Section 2 looks at pre-flight products, focusing on what a pilot can refer to in the days leading up to a flight. This section highlights potentially hazardous weather and includes products such as the Aviation Weather Center’s (AWC) surface and cloud forecast graphics, the Storm Prediction Center’s convective outlook, the National Hurricane Center’s Tropical Weather Outlook, and NWS Weather Forecast Office Terminal Aerodrome Forecasts (TAF) forecasts and aviation forecast discussions.
- ◆ Section 3 moves on to day of departure products, includes items from the pre-flight section plus frequently updated products such as AWC Significant Meteorological advisories (SIGMET), graphical Airmets, and the Traffic Flow Management Convective (TCF) Forecast. Center Weather Service Unit (CWSU) products are also covered in this section.
- ◆ Section 4 turns to en route products, including all previous products plus products that the pilot will want to have access to while in the air. This section covers products such as the AWC Pilot Reports (PIREP) report page, Meteorological Actual Reports (METAR), and the radar page.
- ◆ Section 5 covers the vast collection of aviation weather tools available on the AWC webpage.
- ◆ Section 6 reviews decision support tools such as the Traffic Flow Management Portal, Impact TAFs Board, and Traffic Control Management (TFM) arrival gate forecasts. This section also includes social media links for CWSUs.
- ◆ Section 7 is dedicated to products designed for Alaska and Hawaii.
- ◆ Section 8 is a catalog of the international products and services found on the AWC webpage.
- ◆ The document concludes with an appendix of terms covered in the guide followed by an appendix of all products and links referenced.



This digital guide is user-friendly and will be updated regularly as products, services, and links change and evolve.

[The Pilot's Guide to Aviation Weather Services](#) is online and available now. For those feeling nostalgic, a copy of the [1993 version](#) also is available.

What's New in the Graphical Forecast for Aviation

By [Jonathan W. Leffler](#), Warning Coordination Meteorologist, AWC

The NWS provides the operational Graphical Forecasts for Aviation (GFA) as a set of interactive web-based displays. These displays provide weather observations and

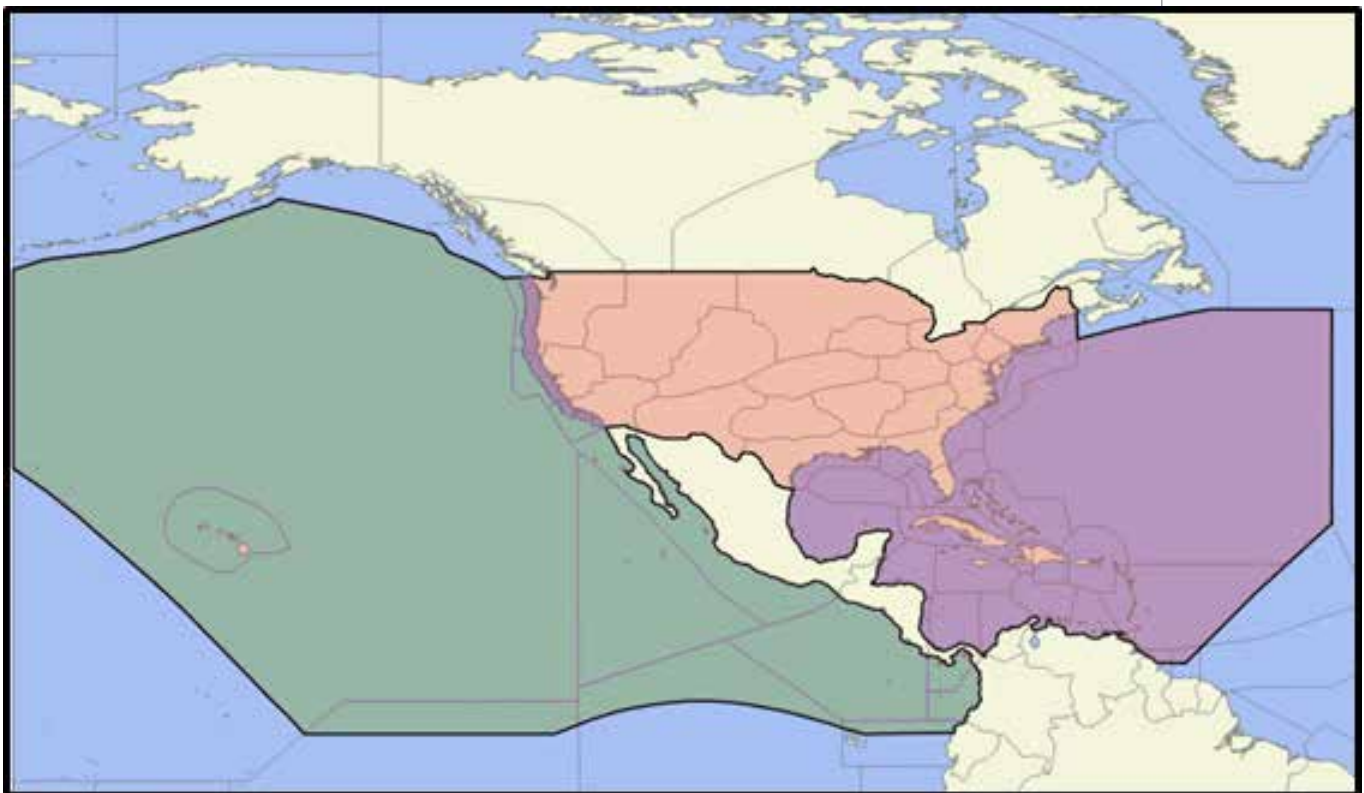
forecasts critical for aviation safety, particularly in expansive oceanic areas with few or no aviation forecasts available.

The first release of GFA covered the conterminous United States (CONUS) and provided equivalent meteorological information to the legacy CONUS area forecast. In August 2019, GFA was broadened to include the Gulf of Mexico, Caribbean Sea, and parts of the Atlantic Ocean. The newest expansion covers Hawaii and parts of the Pacific Ocean from Midway to the Aleutians to the coastal waters of Central and northern South America (see the figure on the previous page).

GFA includes data from the surface up to Flight Level 480 (FL480) or approximately 48,000 feet above Mean Sea Level. It also includes a wide variety of overlays and customization. Overlays include airports, navigational aids (such as flight information region boundaries and jet routes), and surface features (highways, counties, and rivers). The Map Options menu allows users to customize the display with the following options:

- ◆ Choice of base map
- ◆ Type of weather information displayed
- ◆ Map features to include, e.g., opacity, scale and density

GFA provides a nearly one-stop shop for the aviation community, and it allows meteorologists to focus on maximizing operational benefit to aviation end users and other decision-makers. Please visit the [products page](#) and [tutorial page](#) for more information.



Domain of the operational GFA (orange and purple fill areas). The expansion (green fill area) covers Hawaii and portions of the Pacific Ocean from Midway to the Aleutians to the coastal waters of Central and northern South America.

NWS Adds 9 New TAFs

By [Mike Graf](#), Meteorologist, NWS Aviation Services Branch

NWS has added new TAFs to the 700+ options the agency has provided since 2018. The expansion includes the lower 48 states, Alaska, the Pacific and Puerto Rico.

- ◆ Weather Forecast Office (WFO) Great Falls, MT, began TAF service for KWYS, West Yellowstone Airport in West Yellowstone, MT.
- ◆ WFO Corpus Christi, TX, now offers TAF service for KCOT, Cotulla-La Salle County Airport.
- ◆ WFO Phoenix, AZ, added TAF service for KDVT, Phoenix Deer Valley Airport in Phoenix, AZ.
- ◆ WFO Paducah, KY, started TAF service for KMVN, Mount Vernon, IL.
- ◆ WFO Jackson, MS, introduced TAF service for KPIB, Hattiesburg/Laurel Regional Airport in Moselle, MS.
- ◆ WFO Sacramento, CA, expanded TAF service to two new sites: KMOD, Modesto and KMCC, McClellan (KMCC), CA.
- ◆ WFO Bismarck, ND, began TAF service for KXWA, Williston Basin International Airport.
- ◆ WFO Milwaukee/Sullivan, WI, expanded TAF service to two new sites: KJVL, Southern Wisconsin Regional Airport and KSBM, Sheboygan County Memorial Airport
- ◆ WFO Norman, OK, now offers TAF service for KSWO, Stillwater Regional Airport, Stillwater, OK.

Save the Date: Southwest Aviation Weather Safety (SAWS IX) Workshop: September 17-18, 2021

By [Mike Graf](#), Meteorologist, NWS Aviation Services Branch

NWS invites you to join us at the Marriott Uptown, Albuquerque, NM, next fall for a meeting to improve aviation safety in the U.S. Southwest. We will bring together the Southwest aviation and weather forecasting communities to promote aviation safety and productivity through improved weather awareness and forecasting services. This event is free and includes the following:

- ◆ **Friday, Aviation Weather Forecasting Workshop:** This workshop will focus on meeting the needs of Aviation Weather Forecasters. Topics include best practices in aviation weather forecasting, infusing new technology into the forecast process, customer needs, and discussions on weather service innovation. Pilots may find this day the most useful. We appreciate pilot insights in discussions. We also asked the FAA Safety Team to join this session.
- ◆ **Friday evening, Happy Hour and Social Dinner:** Everyone with an interest in Southwest U.S. aviation and aviation weather services is welcome to join us for a



casual evening of networking and relationship building. We will choose a restaurant within walking distance of the hotel and conference center hosting the workshop. Spouses and guests also will be welcome.

- ◆ **Saturday, Aviator and Controller Weather Workshop:** The second day of the workshop will focus on meeting aviator and air traffic controller needs for weather safety information, including presentations on aviation weather hazard recognition, mitigation, and avoidance as well as tips on how to effectively use and understand aviation weather data, products, and websites.
- ◆ **Saturday, Optional Tours:** We are hoping to arrange optional tours of the Albuquerque Air Route Traffic Control Center and its CWSU, as well as the NWS WFO in Albuquerque.

We are working closely with the FAA Safety Team to secure WINGS credit for those who are interested. We also encourage aviation and/or weather professionals to submit standup or poster presentation proposals. We will send out a Call for Presentations in spring of 2021. Feel free to review the agendas from previous [SAWS Workshops](#).

There are numerous dining and shopping options within walking distance of the hotel and conference center. Ride service fare from/to the Albuquerque International Sunport should cost about \$20 one way.

The SAWS 9 Workshop is brought to you by the Albuquerque Air Route Traffic Control Center Weather Service Unit, as well as the NWS WFOs in Albuquerque, Phoenix and El Paso. Please monitor our [website](#) for updates. Feel free to email us at SR.SAWS.Workshop@noaa.gov if you have questions.