



Photo by Susan Parson

## SMART SELF BRIEFINGS

# Maximizing Internet Resources

**Y**ou've just enjoyed a relaxing day at the beach with your family and are preparing for the flight home in your winged SUV. You arrive at the airport just as the sun is beginning its descent toward the horizon, highlighting shafts of rain falling from dark clouds in the western sky. Eager to get airborne before things get hairy, you forego a visit to the weather computer in the pilot's lounge, and instead pull your cell phone out of your pocket and dial Flight Service for a briefing as you load the lawn chairs and sump the tanks.

While such multitasking may be efficient and prudent in certain preflight situations, a smart pilot should never miss an opportunity to look at the weather picture online, especially when there is any chance of encountering conditions that exceed your personal minimums. Flight Service specialists can provide you with the information you need to make an educated launch decision, but the fact remains

that a telephone briefing involves one fallible human being viewing, interpreting, and verbally describing data to another. Unless the briefer is a particularly talented communicator and the pilot is a sharp listener who is able to develop a mental picture of what's being said there are plenty of opportunities for critical details, such as the location and relative movement of weather systems, to get lost in translation.

The key to obtaining a legal and smart briefing is to first use available Internet resources to develop a three-dimensional understanding of what to expect during the trip. Then, a Flight Service specialist can supplement your online briefing and help you make decisions by discussing any questions you may have about what you see on the screen and by providing local area knowledge if you're traveling in an unfamiliar region.

***Before getting into the cockpit, have you already checked your Internet weather resources?***



<http://www.duat.com>

## Briefing Basics

Before we explore how to get a weather briefing online, let's review what a briefing is and what's required of the pilot. Title 14 Code of Federal Regulations section 91.103 states, "Each pilot in command shall, before beginning a flight, become familiar with all

available information concerning that flight." All available information, a wide swath of data, must include weather reports and forecasts for an IFR flight or any flight "not in the vicinity of the airport." This regulation does not state specifically how the pilot should obtain this information or from what source, but the FAA's *Aeronautical Information Manual* (Chapter 5, Section 1-1, Preflight Preparation) provides pilots with guidance.

FAA Order JO 7110.10U, Flight Services, describes the FAA's responsibility for providing official weather briefings to pilots. In this context, a briefing is "the translation of weather observations and forecasts, including surface, upper air, radar, satellite, and pilot reports into a form directly usable

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by the pilot or flight supervisory personnel to formulate plans and make decisions for the safe and efficient operation of aircraft. These briefings shall also include information on NOTAM, flow control, and other items as requested."

The FAA has established agreements with three private companies that are authorized to provide official briefings to pilots: Lockheed Martin Flight Services (AFSS, via telephone at 800-WX-BRIEF); Data Transformation Corporation, or DTC (via the Internet at [www.duat.com](http://www.duat.com)); and Computer Sciences Corporation, or CSC ([www.duats.com](http://www.duats.com)). The term Direct User Access Terminal Service (DUATS) refers to either the DTC or CSC product, both of which allow a pilot to access FAA data (via HTTP or Telnet) to obtain weather and aeronautical information and to file, amend, and cancel domestic IFR and VFR flight plans.

## Getting Weather Online

To get an online weather briefing, sign up for a free user account on either the CSC or the DTC DUATS Web site, or try them both and see which one you prefer. Because they are independent companies, their Web sites each have a unique look and feel, but they offer the same required information. There are also many commercial products and Web sites—even a few iPhone applications—that can access DUATS electronically to obtain an official weather briefing, and display the information in both text and graphical form. Some of these Web sites may charge subscription fees, but as the old saying goes, you get what you pay for—and sometimes, you may get less. The choice is yours.

The Aviation Digital Data Service (ADDS) Web site (<http://adds.aviationweather.noaa.gov>), maintained by the National Weather Service, does not offer an official pilot-briefing product but does provide an excellent way for pilots to view current weather conditions and forecasts, pilot reports, radar and satellite images, and icing probability graphics. The ADDS online tools serve as an excellent supplement to the textual weather information delivered by DUATS. You can, however, view "unofficial" graphical versions of each of the standard briefing required elements at [http://aviationweather.gov/std\\_brief](http://aviationweather.gov/std_brief).

One of my favorite features of ADDS is the interactive METAR Java tool (<http://aviationweather.gov/adds/metars/java>). Use your mouse to draw a box around the section of the map that you're interested in, and the page will reload with a new map based on your selection with METARs plotted for each airport. It's a quick and easy way to see where VFR conditions exist, as well as the strength and direction of the surface winds. You can also click on the TAFs box to overlay Terminal Area Forecasts on the map.

When your briefing includes an AIRMET for icing along the route, check out the Supplementary Icing Information products on ADDS, which include the Current Icing Product (CIP) and Forecast Icing Potential (FIP) product. These color-coded maps can provide additional clues about the likelihood of encountering icing conditions at various altitudes. Pilots can use this site in concert with the upper air

<http://aviationweather.gov/products/ncwf/>

temperature and dew point plots available at <http://rucsoundings.noaa.gov>. This Web site can seem a bit daunting if you've never used it before, so, if you're a newbie to the Web site, scroll down to the bottom of the home page and click on the link for the tutorial.

### Needling Through NOTAMs

Depending on what sort of mood you happen to be in at the moment, reading through the pages of NOTAMs that are included in a typical DUATS standard briefing can either be an opportunity to learn or the catalyst for a headache. Most people within the aviation industry agree that the NOTAM system is badly in need of an overhaul, and the good news is that the FAA is actively working on a better solution. Meanwhile, pilots who use DUATS to get a briefing online need a strategy for filtering out the nuggets of NOTAM that are potential deal breakers for a flight—such as NAVAID or GPS outages.

Here's what I do. I cut and paste the entire text of my standard briefing output into a text editing document, and then do a search for the names of the airports, NAVAIDs, and airways that define my route of flight. This method reduces the likelihood that I'll miss something in a straight visual scan of the text, and also allows me to delete NOTAMs that I determine are irrelevant. Remember that you can also limit the number of non-applicable NOTAMs by tailoring the width of the route when you request weather-briefing data.

Another way to get the same information in a more user friendly way is to visit the FAA's NOTAM Web site, PilotWeb (<https://pilotweb.nas.faa.gov/PilotWeb>). PilotWeb is an official FAA Web site, but it does not provide a complete briefing including weather (though there are links to weather sites including ADDS). While the PilotWeb information may be considered reliable, the Web site does contain a disclaimer pointing pilots to Flight Service for official data.

I normally visit PilotWeb the day before I plan to depart on a cross-country flight to find out if any NAVAID or other facilities are unusable, or if any Temporary Flight Restrictions (TFR) are expected along my route. If I see something potentially problematic, it gives me extra time to develop an alternate route or, in the case of a large TFR, to modify my departure time. You can also visit the

FAA's Graphical TFR Web site (<http://tfr.faa.gov>) to read the textual description of a TFR, and view its lateral limits overlaid on a sectional chart or custom map.

### Bringing It All Together

Flying was arguably much simpler back in the days before the Internet, GPS, multifunction cockpit displays, and roaming presidential TFRs. With information comes complexity, but also choice and, if used properly, increased safety. The FAA's increasingly broad use of the Internet to disseminate weather and other information is an indicator that the days of the teletype machine are long gone. Pilots should know how to get a weather briefing online and how to find supplementary information on trusted Web sites. Still, sometimes there is just no substitute for a one-on-one conversation with a trained and experienced human being—so make sure AFSS is programmed into your cell phone's speed dial. ✈️



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### Useful Web sites

- <http://www.duat.com>
- <http://www.duats.com>
- <http://adds.aviationweather.noaa.gov>
- [http://aviationweather.gov/std\\_brief](http://aviationweather.gov/std_brief)
- <http://aviationweather.gov/adds/metars/java>
- <http://rucsoundings.noaa.gov>
- <https://pilotweb.nas.faa.gov/PilotWeb>
- <http://tfr.faa.gov>