

OPTIMIZE THE WEATHER BRIEF

Getting the most from what a briefer tells you requires a plan and an Internet connection. Oh, don't forget to turn on the Weather Channel.

By Harry Kraemer

Since instrument flying and weather go hand in hand, obtaining a thorough weather briefing is essential for the IFR pilot. Yet it's a procedure that's often overlooked during the training process. An instructor may assume that this is something a student learned during primary training and has since perfected, while the student may be too embarrassed to admit a lack of proficiency in what appears to be a simple task.

The reality, though, is that many pilots — including instructors — don't know how to obtain a thorough weather briefing. After they say goodbye to the briefer and hang up the phone, they still do not have a clear picture of the weather along their route, or they're left with more questions than answers.

If this sounds all too familiar, don't despair; you're not the only one in this boat. The problem is that many pilots are not fully prepared for their briefing. Therefore, they do not know what to ask the briefer or they don't understand the information they receive. (For a refresher on how to obtain a briefing, refer to the Aeronautical Information Manual, sections 5-1-1 and 7-1-4.)

An Advanced Look

Your weather briefing should start several days in advance of your planned flight. The Weather Channel is a good source to get an overview of the big picture. By watching the forecasts and current weather trends, you can compile a list of questions and concerns that you'll want to discuss with the Flight

Service briefer when you call the day of your flight.

Things to look for are the location and projected movements of high and low pressure systems, fronts and any storm activity that could impact the route of flight. If the Weather Channel isn't available, watch the local news stations. While their focus will be regional, you should still be able to get an overall national picture. The other great source, of course, is the Internet, but more on that later.

This advanced look at the weather can also be instrumental in adjusting your departure time or modifying your route. For example, if a fast mov-

ing cold front that is producing lines of thunderstorms is approaching your planned route of flight, you may decide to adjust your departure day or amend your routing. Regardless, you'll want to be sure and check the status or trend of any fronts before you call flight service. The briefer may not even mention the front if he doesn't feel that it is a factor for your flight, but with your advanced look at the weather, you'll know about it and can therefore check its status. You can also make intelligent inquiries about the return flight, using the latest information and the briefer's input to adjust times and routes as necessary.

Brief Thyself

Getting our hands on weather information has certainly gotten a great deal easier with the Internet. It's now possible to obtain a complete weather briefing and file a flight plan without ever talking to a live person. While this may offer a level of convenience for some, going the online route also carries with it some special considerations, the chief one being that it requires *you* to be the weather expert. This assumes a level of confidence in your ability to read charts and decipher reports like METARs and TAFs, even if translated into plain English. This is asking much of the occasional flyer, so therefore a call to a professional briefer is probably the more prudent way to go.

With that in mind, the Internet shouldn't be ignored. Ideally, you should already be armed with most or all the information you'll need prior to picking up the phone. The briefing can then be used to confirm the information you already have or to address any concerns or questions that have cropped up while you were researching the weather. Keep in mind that briefers often have knowledge of local weather phenomena that may not appear obvious in the black and white text of a computer-generated report. Pay heed to what they say and use their expertise to your advantage.

There are numerous aviation sources on the Internet, and the services they



QuickLinks

Useful Web Sites
For IFR Pilots

There are many aviation weather sources on the Internet. Below are some to get you started.

www.duat.com

www.duats.com

www.aviationweather.gov

www.weather.com

*www.aopa.org/members/wx/

www.faa.gov/asos/map/map.htm

adds.aviationweather.gov

www.aviationweatherbrief.com

*Requires membership

Lockheed Martin Takes Over As FSS Provider

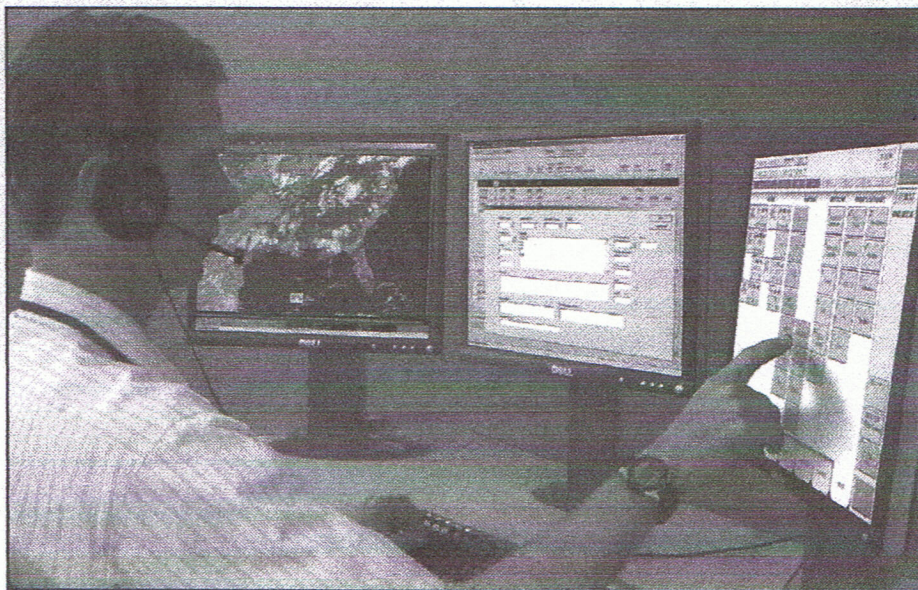
Earlier this year, Lockheed Martin won a five-year contract from the FAA to take over the administration's Automated Flight Service Stations (AFSS). At press time, Lockheed Martin was scheduled to assume FSS operations on Oct. 1, before this issue reached your hands.

The deal, with an optional five-year extension, is worth \$1.9 billion and would save the FAA \$2.2 billion over 10 years, according to the agency.

Lockheed Martin's plan, which it dubbed Flight Service 21 or FS21, calls for the consolidation of 58 Flight Service Stations into 20 facilities, a process that is expected to be complete by the end of March 2007. Flight Service Stations in Alaska won't be affected by the consolidation because of the unique conditions that Alaska represents.

In its proposal, Lockheed Martin promised live briefers would answer phone calls within 20 seconds and acknowledge radio calls within five seconds. Flight plans would be filed within three minutes. Lockheed Martin plans to invest heavily in upgrading computer systems and related technologies, with a strong shift towards the Internet. Pilots, for example, would be able to create personal and airplane profiles that a briefer can then use to tailor a weather briefing.

According to the FAA and Lockheed Martin, users shouldn't notice any changes or disruptions when the switch is made, so familiar



In this conceptualized photo, a briefer uses a proposed workstation. Pilots with an Internet connection would have access to some of the same information and images the briefer has. (Lockheed Martin)

phone numbers and radio frequencies will continue to work.

Lockheed Martin's plan has earned the backing from AOPA, which has long called for an overhaul of the AFSS system. The National Association of Air Traffic Specialists (NAATS), meanwhile, has opposed the change. NAATS represents FSS specialists and says some of its members will either lose their jobs or see a great reduction in benefits. Briefers who decided to stay would become employees of Lockheed Martin on Oct. 1. Others have taken positions elsewhere within the FAA or have opted for early retirement.

—Bill DeBrauer

FSS To Stay Open

AFSS Hubs

Ft. Worth, Texas
Leesburg, Va.
Prescott, Ariz.

AFSS Facilities

Albuquerque, N.M.
Columbia, Mo.
Denver
Honolulu
Islip, N.Y.
Kankakee, Ill.
Lansing, Mich.
Macon, Ga.
Miami
Nashville, Tenn.
Oakland, Calif.
Princeton, Minn.
Raleigh, N.C.
St. Petersburg, Fla.
San Diego
San Juan, Puerto Rico
Seattle

offer are constantly changing and evolving. Some are free while others charge a nominal fee. One of my favorites is www.faa.gov/asos/map/map.htm, which contains a list of ASOS and AWOS-equipped airports sorted by state. The list includes phone numbers to the automated reporting stations and in most cases a link to the National Weather Service for the latest weather observations. More importantly, it lists hourly observations for the past 24

hours, so it's easy to see which way the weather is trending. This way, you can get the current weather for numerous airports, including alternates, without tying up the briefer. You can also listen or read the observation over and over (if needed) to be sure you have all pertinent information. You can also check the weather at locations well outside of the area the briefer would normally include in your weather briefing.

If you haven't already done so, it's

worthwhile to spend a few hours exploring the Internet for weather sites that you might find helpful and bookmark them for future reference. (Our QuickLinks sidebar has list of Web sites to get you started.)

Mapping Your Phone Briefing

The goal of the thorough weather briefing is to convert the information you receive during your briefing into a picture of the weather, overlaid on your

route. This applies whether you are flying VFR or IFR.

This is fairly easy at home or the office, where you can print various weather charts straight from your computer. If a printer isn't available — let's say you're at the FBO or in a hotel room — I recommend the use of a World Aeronautical Chart (WAC); an expired one will do for weather briefing purposes. The WAC shows cities, aids to navigation, airports, airways, special-use airspace and obstructions but its scale is small enough that it compresses a large area into a chart of manageable size. You can develop your own shorthand or use the standard shorthand and symbols that are used on the various weather maps. For shorter trips, a Sectional or IFR Enroute Low Altitude Chart will work just as well. There's also flight planning software available that will do much of this for you. What is important is that you are able to plot a picture of the current and forecast weather, and not so much what you use as a map.

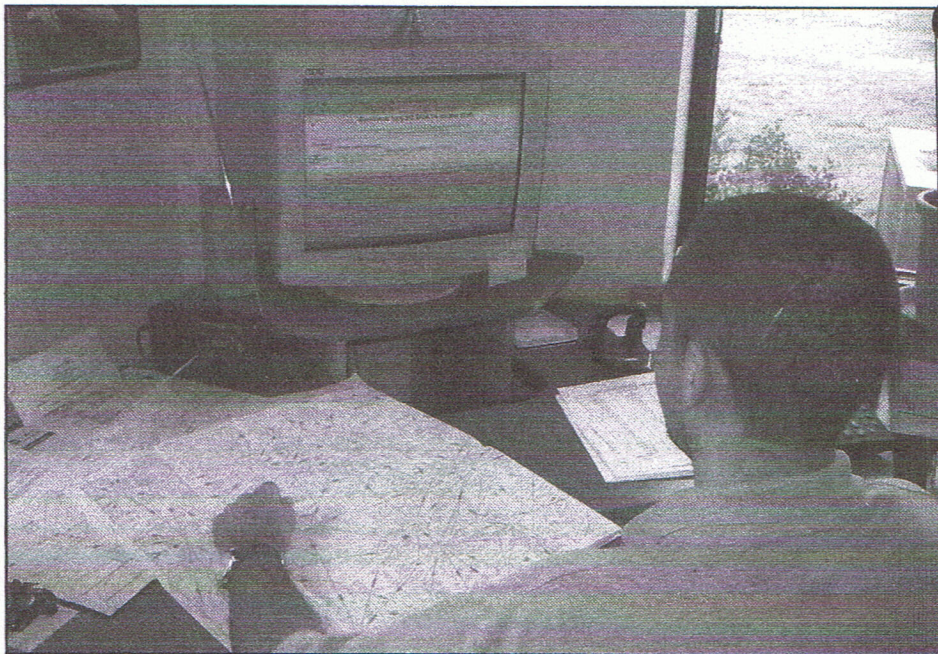
On your chart, you should plot cells, fronts, areas of precipitation, and any other useful and important information, including areas where the weather is VFR. As you start to plot the weather onto your map, you can add dates and times to the information. This will help in determining how fast a system or storm is moving.

Asking The Proper Questions

As the big picture starts to form, either through your own research or during the course of the briefing, you'll probably come up with a list of questions that you'll want to ask the briefer.

Make notes of any questions you may have but wait until after the briefing is complete before asking them. Interrupting the briefer during the briefing causes him to skip around and as a result he may overlook some important information. It's also possible that your question may be answered later on in the briefing.

Once the briefing is finished, do not



The Internet is revolutionizing the way pilots get weather. Before calling FSS, fire up the computer to get an idea of what you can expect the briefer to tell you.

hesitate to ask about something that you saw from other resources that the briefer did not mention. Briefers may omit information that in their opinion is not applicable to your flight. They are also constrained by filters that are built into their software. These filters are necessary to limit the amount of information that is generated for a particular routing. This way, the computer won't spit out the weather in Los Angeles for a flight from Atlanta to Myrtle Beach. But these filters may also block out potential alternates if they happen to fall outside the software's area of coverage for your particular route.

Again, by having a good understanding of the whole weather picture, you can ask questions about specific airports or get more insight about a particular weather system or pattern. Remember, briefers are there to answer your questions and not just read what comes up on their computer screens.

Reading Between The Lines

As you receive your briefing, be particularly alert for clues of worsening weather, clues that may have been presented differently on non-aviation weather

resources. For example, the briefer may mention a small temperature-dewpoint spread, but nothing about fog. Meanwhile, the local television weatherman will probably just forecast fog and say nothing about temperature and dewpoint. Between the two different resources, you can reasonably assume that there will be fog.

The more you put into the briefing, the more you'll get out of it. Departing on a trip knowing that you have a complete picture of the weather is much more reassuring than being surprised by inclement conditions. Carry along with you the "weather map" that you developed during your advanced look.

By starting your briefing several days in advance, you give yourself plenty of time to research any information that you may not understand. Always ask questions and get clarifications before you go.

Harry Kraemer is a Gold Seal flight instructor who holds three Master CFI titles from the National Association of Flight Instructors. He's also an Aviation Safety Counselor with the Baltimore FSDO.