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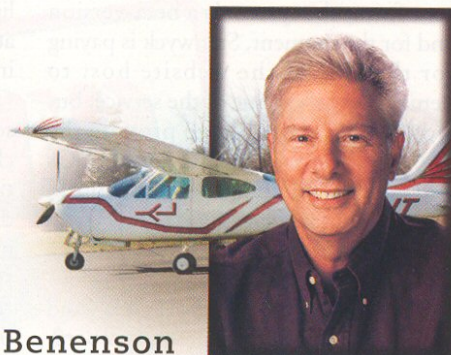
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# Airwork



By Tom Benenson

## Show Me the Weather!

WHEN THE WIND'S REALLY BLOWING and the idea of going up to exercise my airplane isn't very appealing, I'll call up a website that provides a graphic display of the current conditions at my local airport to see how strong the winds really are. In addition to the actual conditions, as reported by the AWOS, I can also see what the highest wind gusts were and when; what the barometric pressure trend has been; and what the temperatures have been. In fact, the program tracks—and graphs—six different items.

Although weather conditions can change rapidly, it's nevertheless useful before leaving the comfort of my office to get a good idea of the actual conditions at the airport. And then, for even more timely information, once I'm at the airport the program is running on a monitor that Richmor Aviation has mounted on the counter in its FBO.

Student pilots coming in to sign out an airplane before a lesson are able to see a graphic display that shows an airplane icon on the runway with arrows depicting the current wind and the direction and speed of the headwind and crosswind components of the wind.

The program is the work of Bill Stanwyck whose company, Stanwyck Avionics (SAI), services 18 AWOS installations at airports in the Northeast. As Stanwyck explained, the AWOS systems are installed under a federal grant but have to be maintained by a technician who is "type-rated" on the different types of installations by the FAA after completing factory training on the particular equipment.

Stanwyck has taken his knowledge of AWOS systems to develop the graphic

AWOS program. The program for FBOs provides six graphs and three spreadsheets. The original program uses a lot of bandwidth, but a new software version allows the information to be sent in much smaller packets so that an FBO without a high-speed Internet connection can now get the data over a dial-up telephone connection. "The new software allows us to do what we couldn't do before.

In the past when the computer went offline the historic data was lost, but now the raw data is in a database and can be scripted to look back a number of days," Stanwyck said.

According to Stanwyck, the program is designed to give pilots the weather information at those airports that can't afford the more expensive systems that are available. "We're looking to provide a software package to FBOs that will run





## Airwork

on a Windows XP platform." In its present form, the system is a beta-version and for the moment, Stanwyck is paying for the cost of the website host to demonstrate the value of the service, but would eventually like to provide the website and monitoring service to FBOs and airports for about \$25 per month. There would be no charge to pilots who could access the website from their home computers.

The six graphs (wind direction, wind speed, wind gusts, altimeter, temperature/dewpoint, and relative humidity) are presented in a three-over-three format. Each shows the last 18 data points. If you click on any of the six graphs, you're presented with the last 50 occurrences on the full screen. Stanwyck said that if there's only one airport on a server, the system will be able to go back even further in history. "Now the system is only going back the last 5,000 minutes, about four days. But we'll be able to go to 14 days and maybe as many as 30 days, which will help the NTSB with accident investigations. It would be in an *Excel* format so users could call up record numbers and print them out," he explained.

The final version will also contain lightning data. A demonstration in place at Hugoton Municipal Airport (KHQG) in Kansas uses an SA20 lightning sensor. (The SA20 is a stand-alone, weather-tight sensor capable of detecting cloud-to-cloud and cloud-to-ground lightning activity.) The display would provide a circle divided into eight quadrants with an outer, middle and inner ring. Lightning strikes would be shown in color ranging from yellow to orange to red depending on the frequency of strikes out to 90 miles from the airport.

The beta program of the SAI system is now running at a number of airports (including 3B9, 40N, N23, 5B2, MSP, FSO, U52, 1B1, OXC, 0O5, 1N1, HOG, CZG and SCH) and the graphic displays of the live metars can be accessed by logging on to SAI's website ([www.stanwyckavionics.com](http://www.stanwyckavionics.com)) and clicking on the links.

### Practicing Outside the Box

A friend recently installed the Garmin (née UPS-AT) MX20 multifunction display in his turboprop Bonanza and asked if I could help him learn how to work it efficiently. When Jon Wurtzburger of-

fered to buy me lunch, the go-around was an easy one to make.

We set a time to meet and then I asked if there was a power cart available at my FBO to energize the panel on the ground. There was.

When Jon arrived, Dell Feller and I hooked the airplane up to the power cart and we climbed inside the cockpit. It warmed in the sub-freezing temperatures by the greenhouse effect. The cockpit was quiet except for the occasional blasts of wind that rocked the plane. The wind would have made an airborne tutorial even more uncomfortable and less conducive to learning than the cockpit of an airplane in flight normally is.

The two of us, ensconced in the stationary cozy cockpit classroom, pushed buttons and turned dials at our leisure. As we worked through the various screens and menus the MX20 owner was favorably impressed with how easy Jon was in suggesting we conduct a "training" session on the ground.

I know there are "docking" simulators that are available for some of the advanced avionics that can be "flown" in simulator mode at home and then

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