

BOB BARON

Bringing Weather to Your Cockpit.

By Jennifer Taylor

Most people aren't able to parlay an aviation interest into a career that makes the whole industry safer. Yet Bob Baron, president of Baron Services, has been able to do just that by creating a safer environment for pilots through his company's meteorological analysis—a service called XM WX Satellite Weather, which is delivered via XM Radio's state-of-the-art satellite system. Baron was recently recognized by the National Weather Association for his tremendous efforts that “brought the weather to the cockpit.”

To no small degree, Baron felt the need for increased weather awareness years ago, both on the ground and up in the sky. “Ironically, aviation got me into meteorology,” he says. Baron recalls stories from his father's Air Force days, such as when, “he flew around Alaska through weather and all they had were MDBs to locate themselves.”

Drawn to the industry by his father, Baron became a pilot in 1975. Due to his extensive knowledge of aviation, he was later asked to deliver the weekend weather for a local TV station and soon embarked on a new career path. He was inducted into the Meteorological Society and subsequently rose through the ranks to become chief meteorologist at WFLA in Tampa, Florida. He later relocated to Huntsville, Alabama, where he currently resides.

During this time, Baron learned of technology with precise weather information that piqued his interest. He received a NASA Technology Transfer Grant focusing on the new technology. “That allowed us to tap into the localized network and get lightning-data,” he explains. “We created displays that allowed us to zoom in on lightning across North Alabama and make that information available to emergency management.”

After a devastating tornado in 1989, Baron remembers: “We knew where the heart of the storm was. That was the only real tool I had. Everything else was weather gadgets—not tools.” So, he set



Bob Baron in Baron Services' state-of-the-art weather operations center.

out to create a set of tools that would be able to keep pace with Mother Nature. “I incorporated the company with the idea of what can we do to be far more accurate, precise and timely with the info we have, and how we can get that to the public and save lives.”

By zooming in on the most destructive part of a storm, Baron's team was

able to track storms and notify at-risk communities—a key moment in what he refers to as the “real beginning” of his company. “The display product integrated live lightning and live radar, allowing trained meteorologists to storm-track and warn people who were at threat and when,” he says. Over time, Baron Services has become known as

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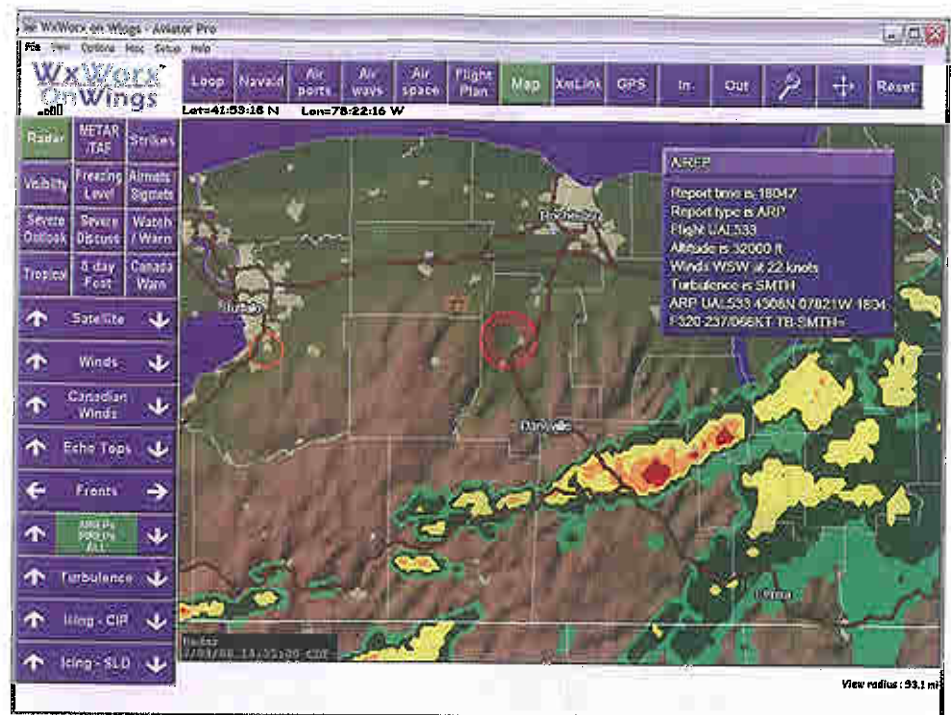
"the biggest manufacturer of Doppler radar in the country."

In 1999, Baron began spending more time in the sky and became determined to get the weather products available for pilots inflight. "My company wanted to provide weather to the cockpit, but the only question was 'how?' There had been a number of efforts to get weather to the cockpit—ground-based stations, a cellular-type approach, satellite, but none of them were reliable," he says. "Typically, the satellite had low power and in order to get a reliable signal, you had to have a good-sized satellite dish—and this may come as a surprise, but those satellite dishes aren't very aerodynamic!"

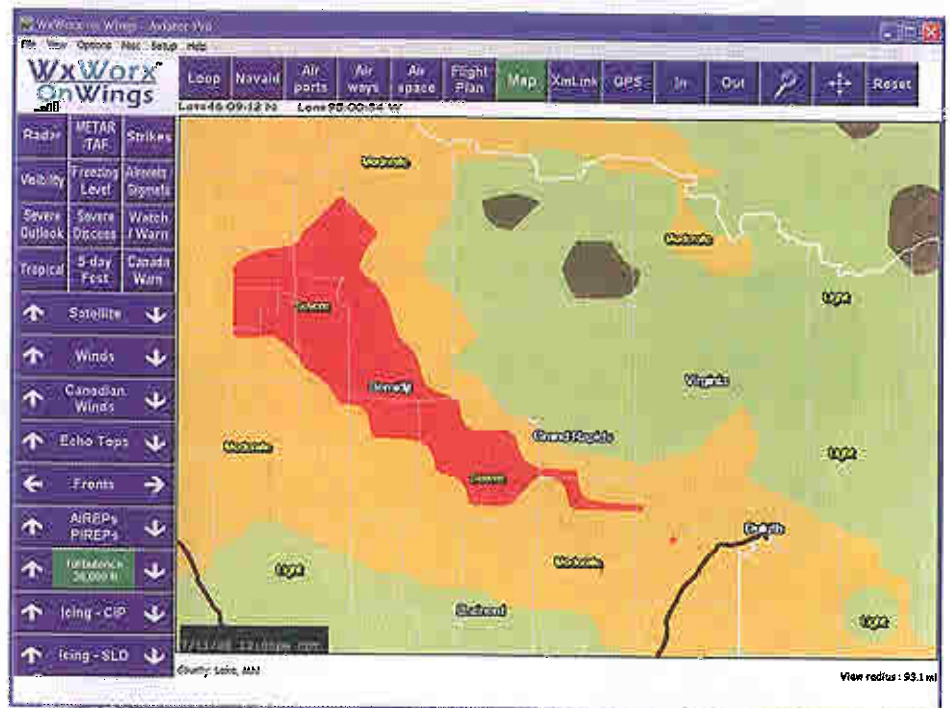
Then XM Radio appeared on the scene with its revolutionary method of global transmission. "They didn't build their system for transmitting weather to the cockpit, but it was perfect," Baron says. "XM Radio built its system so it could reach millions of automobiles around the country and designed its satellites in the S-band area, which is capable of cutting through the strongest storms."

Ultimately, the partnership with XM Radio has been one that Baron humorously refers to as a "marriage made in heaven." It was formed between Baron's WxWorx company under the Baron Services umbrella, forming XM WX Satellite Weather. "We're very good with weather—in fact, we're the industry standard for severe weather and weather radar—and we looked at XM as the perfect means of distributing that weather info," he says.

Acknowledging that neither company was well-versed in avionics, Baron and his team chose to work with the



Displaying weather data from XM WX Satellite Weather, WxWorx On Wings shows AIREPS, which is now part of the Aviator data package.



Now XM Weather's Turbulence Data product—part of the new Aviator Pro data package—can classify turbulence as "light," "moderate" or "severe" at 36,000 feet.

manufacturers instead of competing with them. "It's with their ingenuity and cooperation that the basic tools we provide have made this weather data so easily available and widely accepted. We hold a substantial portion of the marketplace," Baron adds.

By providing pilots with advanced

knowledge of exactly what type of weather they might encounter from exactly what type of precipitation that is ahead, the weather packages developed by Baron's company will only continue to enhance pilots' enjoyment in the skies. And thanks to Baron and his team, the skies have never been safer. ✈