



Four Entrepreneurs

Innovation in aviation

EACH MONTH, I TYPICALLY write about one new aviation product, yet during any given month I learn of many interesting products. For example, at EAA AirVenture Oshkosh 2010, I hosted 39 videos, most on new products. You can find links to them at www.SportAviation.org.

I encounter entrepreneurs and their products in various ways. In some cases I randomly bump into a person; in others the entrepreneur contacts me or sends an unsolicited sample of a new product. Often their new products are inspired by a problem or need of their own. Here are some new pilot accessories and the people behind them.



Chelsea Welch started her watch business while still working as a demo pilot for Cirrus Design. She recently finished her flight instructor certificate and is enjoying teaching her first student to fly.

ABINGDON WATCHES

Two years ago, I attended a local event to see Cirrus Design's new Perspective SR22 aircraft. The plane is still one of my favorites in which to teach, but an even better find was becoming acquainted with Chelsea "Juice" Welch, the demo pilot. I happened to notice she was wearing an interesting watch and asked her about it. It turned out that she was the entrepreneur who designed the watch. She has since left Cirrus, and Abingdon Watches is now her full-time job.

In her case, entrepreneurship came early. "I was always the one with the lemonade stand," she explained. Much later, she was with several female pilots who were complaining they couldn't find a lady's aviator watch, only large, clunky ones designed for men. Juice was interested in a watch, too, so she started researching watch companies around the world that could build a custom design for her. Initially she planned to buy just a few watches for herself and friends, but she then decided to build a business selling watches to women pilots everywhere.

With women representing only 6 percent of all pilots, you might think she's chasing a small market, but for now she appears to have it all to herself. Lately, she's started tapping into a "lifestyle market" of women who aren't pilots but still want an attractive aviation watch. Today Abingdon watches are sold in pilot stores and at www.AbingdonWatches.com.

BACKUP RADIO WITH ILS

The folks at Sporty's recently sent me their new SP-400 handheld transceiver to try. The radio is cool and does just what it's advertised to do. You can talk to air traffic control (ATC), receive a VOR signal, or—and this is its unique feature—receive an instrument landing system (ILS) signal. I used the SP-400 to monitor the ILS a client was flying in his Cirrus SR22T, and the indications on the handheld perfectly matched those in the Cirrus. I like that the radio comes standard with an alkaline



Sporty's SP-400 is the only handheld radio that displays ILS signals. When loaded with eight AA alkaline batteries, it should operate for a long time, even when carried as an infrequently used backup radio.

battery pack so you don't have to buy one separately. It also lets you switch back to your previous frequency.

You may not think of Sporty's as the classic small entrepreneurial business, but that's how it started. Hal Shevers was teaching as a certificated flight instructor (CFI) while working for Cincinnati Milacron in the early 1960s. Soon, he was touring the country giving three-day weekend pilot seminars to prepare pilots for their written tests. He started the pilot store business with a simple innovation: a modified radio that he sold so that students could improve their pilot skills by listening to ATC. Now he employs 200 people in a variety of aviation businesses.

GLOVELITE

At AirVenture 2006, I met Dr. Paul Smith, who was exhibiting the original GloveLite, a full glove with embedded LEDs that illuminate where your fingers point. Paul is one of several entrepreneurs I've met who brought a new product prototype to AirVenture, got feedback from pilots, and then modified his product to better meet pilot needs. He was inspired to create and patent GloveLite while flying at night and trying to see as he wrote on his kneeboard.

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Last year, Paul phoned and said he'd improved the product and had a new version. Among other things, he learned from pilots that the original full-glove version was hot and sweaty, so he created a new neoprene GloveLite that covers just the index finger and thumb, but leaves the fingertips exposed for better tactile feel. A switch on the back of the hand illuminates LEDs on the side of those fingers for up to eight hours.

I've flown with a GloveLite and find it extremely useful. Best of all, after a minute of wearing it, I become accustomed to it and no longer feel that I'm wearing anything on my hand. It's particularly useful when I'm writing or reaching for a knob. In October 2010, Paul plans to ship GloveLite 2.0, a machine washable, waterproof version to everyone who purchased the original version. GloveLite sells for \$24.95 at www.GloveLite.com.

AIRWAYS FOR GARMIN 430 AND 530

Recently, David Castaldo, co-owner of Westmoreland Aviation in Latrobe, Pennsylvania, contacted me. He wondered if I knew of a way to load a Victor airway directly into a Garmin 430 or 530 flight plan, something that can be done on the Garmin GNS 480. I told him I didn't know of a solution. The following morning, Victor Girgenti e-mailed me, saying, "I have started a company called AirwayPlanner.com. What our product does is make it easy to input airway waypoints, both Victor and Jet, into non-airway-supported GPS units like Garmin 430/530 units."

Victor sent me a product sample, a PDF file that lists all of the U.S. airways and their intersections. I loaded it onto my iPad, but you could also load it onto a Kindle, Sony eReader, or iPhone, or print the entire document and use it in paper form. It lets you quickly identify the entry and exit points you'll use for an airway and the intermediate points needed to define the airway. All of the intersections are listed in a way that lets you clearly see which ones you don't need to enter in your flight plan. You still have to enter the waypoints manually into the Garmin 430 or 530, but Airway Planner simplifies the hardest part of the job: identifying the waypoints needed to enter an airway.

Like the other entrepreneurs, Victor identified a need. "I upgraded the Garmin 530s [in my aircraft] to WAAS, but upon



The GloveLite is available in two sizes, medium/large and a larger size that is big enough to fit over a glove. You can choose left- and right-handed versions and one of three LED colors: red, white, or green.

return I realized that Garmin did not add the airways. I could not believe that the Apollo 480 had the airways and Garmin did not see a reason to put them in the 430/530 units. I started playing around with the waypoints and bringing them up through DUATs and saw I could make a booklet up."

Later Victor realized he needed a computer-savvy person to format the PDF files and create a website. "This young man, David Kurman, who also is a pilot, hangs around Republic Airport (FRG). We became friends, and I offered him 50 percent of the company if he handled all the website setup and things like that. Three months later and here we are." A one-year subscription is \$49 for either Victor airways or Jet routes, or \$79 for both at www.AirwayPlanner.com.

All of these entrepreneurs identified an unfilled need and created a product to solve it. Each started with a single product or market, and some have expanded by adding new products and/or markets. Years from now, one or more of them may grow to be as large as Sporty's. Yet already, aviation is richer for their insights and dogged pursuit of innovation. *EAA*

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Airway Planner is a textual representation of all airways in the continental United States that's updated every 28 days. All airways and their waypoints are listed.

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