

Continuing Education

Keeping Pace with the Rate of Change

STORY BY SCOTT M. SPANGLER





Photos by Jeff Kirchoff, AEA

The AEA is a valuable training resource offering hands-on courses, including basic wiring & avionics installation, pitot-static & transponder certification training, and navigation systems line maintenance & testing.

You cannot buy a good technician,” said Todd Sussenberger, general manager of Southern Avionics & Communications. With the Mobile, Ala., company for 18 years, and a co-owner the last five, he speaks from experience. A good technician with up-to-date systems’ knowledge and 10 years experience is hard to find.

“They’re out there, you meet them at AEA’s regional and national meetings,” Sussenberger said, but getting them comes at a high price. The only economical solution is “to grow your own” with continuing education, which also addresses the industry-wide challenge of keeping pace with ever-changing technology.

With 14 employees, nine of them technicians, Southern Avionics has invested in its continuing education program since Sussenberger has been with the 30-year-old company. “We don’t have a structured way of doing it,” he said, explaining that the flexible program is based, in part, on a technician’s ambition. “Some excel

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CONTINUING EDUCATION

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at training, and others don't, but they all do something" to further their skills and keep current. This pragmatic approach starts in-house, by pairing "the old dogs with the new dogs."

Continuing education is a daily process, a collaborative effort between shop and technician that requires dedication and self-discipline. It's sitting down with the manuals, videos and other OEM materials and learning about each new piece of equipment. To some degree, all OEMs have online information, and Southern Avionics technicians draw on them, as well as the AEA's online courses.

Still, keeping pace relies primarily on self-study. It used to be, in the analog era, "you printed out the manual, and that was it for

"We do most of our continuing education with the AEA," Sussenberger said. "I have a few guys that want to go all the time, and some who don't want to leave the house."

In rotating groups of two or three, Southern Avionics technicians participate in training at regional meetings and the AEA's international convention. This provides the best balance between shop productivity and the costs of traveling to training. It takes two or three years to rotate through the technicians, but everyone gets a turn. On their return, students become teachers. Most of the day-long courses include handouts, he said, and "we make a boatload of notes in the workbook and then come back to the shop and share that."

AEA Training

Subdivided into three categories—technical, regulatory and professional development-business management—the Aircraft Electronics Association offers several dozen courses, according to Mike Adamson, vice president of member programs and education. A collaborative effort that includes OEMs and training companies, the AEA offers a rotating menu of courses online, at its training facility at its headquarters in Lee's Summit, Mo., and at its regional meetings and international convention.

Most of the online courses deal with regulatory topics. They range from wiring, alterations and flight manual supplements to the subjects, such as hazardous materials and workplace safety, the FAA requires for all repair station employees. "One OEM member, Aspen Avionics, offers its required dealer refresher training online," Adamson said.

Face-to-face courses begin with the fundamentals: basic wiring & avionics installation, pitot-static & transponder certification training and navigation systems line maintenance & testing, taught at headquarters, regional meetings and the international convention. The AEA developed its advanced Fast Trak courses, which address subjects from autopilot to RVSM, "because there's nobody out there doing it in adherence with the regulations and industry best practices," Adamson said. The day-long courses are held at regional and international gatherings, which is where OEMs also hold their product-specific training sessions.

The AEA conducts its professional and business classes at its international convention. The subjects range from customer service, sales, conflict resolution and negotiation to marketing, financial management and the process of transferring a small, family-owned business to the next generation of employees. Not counting the online or fundamental technical courses, the AEA rotates through its educational menu according to the needs of its members, and it adds new classes based on member feedback, which the organization collects at every opportunity.

Since its founding in 1990, the AEA Educational Foundation has awarded more than \$1 million in scholarships to help members and their dependents pursue aviation-related careers. This includes flight training.



Photo by S.M. Spangler

At Garmin's AirVenture exhibit, pilots can get hands-on with new systems under the guiding eye of tech reps.

quite a while," Sussenberger said. "The way they release products now, they are not truly finished. The architecture of the unit stays the same, but with software and firmware updates, and database subscriptions, it keeps changing how it goes about its business."

When a problem arises, when one unit won't work with another, Sussenberger continued, usually "it comes down to not reading the notes or having the latest information, because they change the manual quite a bit after (the initial) release. Keeping up with all of this has become the primary focus of continuing education."

To maintain productivity, Southern Avionics has designated a computer-savvy tech as the go-to guy for all software problems, so the others can keep installing and fixing radios.

“Becoming a pilot is the ultimate continuing education effort any technician can make,” Adamson said. “You understand avionics from the customer’s perspective,” and that real-world, hands-on operational experience combined with in-depth technical knowledge makes technicians better at every level, from installation to troubleshooting.

Each year since 2003, the AEA has recognized members that have made a total commitment to avionics training excellence.

“Earning the Avionics Training Excellence award is a hefty commitment,” Adamson said. “It means every technician employed that calendar year has completed some form of AEA-recognized training.”

Nearly 10 percent of the AEA’s 900 repair station members earn the designation annually, an accomplishment the AEA recognizes online, in print and in person. Some companies are dedicated to the effort and never miss a year, such as Preferred Avionics in Howell, Mich., which has earned the designation annually since it started business in 2004.

Training by Another Name

The Sun ‘n Fun Fly-In at Lakeland, Fla., and EAA AirVenture at Oshkosh, Wis., can be overlooked schoolrooms. All of the avionics OEMs are there giving demonstrations, answering questions and holding seminars all day long.

“It’s aimed at pilots, but it still applies to techs,” Sussenberger said. “Once you install it, you have to program it, use it and then you have to tell the customer how to use it.”

This “training” is casual. It’s listening to an OEM tech rep explain a system to a group of pilots at the booth. “Stand there for a half-hour or so, and you’ll see three or four groups of a dozen or more pilots, each of them asking a different series of questions.” This not only teaches the techs about what new equipment can do and how it works, it prepares them for the questions they may face during the post-install meeting with the pilot.

Pilots pose many more questions to Sussenberger, who handles sales, which is why “I never miss the big shows.” By listening to the OEM reps answer the multitude of questions at the booth, “you start learning what to expect.” He does the same at the tent seminars. “You listen to the questions and you see responses that maybe didn’t fly with the customer, so (the answer) gets a little deeper. And, maybe you hear the same question at another seminar, and you get a better answer from a different presenter.”

Getting the same experience with customers at the shop would take years. Since making these shows part of his continuing education program, Sussenberger rarely has to tell a customer “I’ll have to find out about that.” By paying attention at the shows, “you’ll see all the objections, hear all the questions and listen to all of the (reps’) answers—when you get back to your desk, you’re ready to go.”

At Southern Avionics, continuing education also focuses on component-level bench repairs and its metal shop, complete with powder coating and silk screening. The avionics business has grown from adding a transponder to fully integrated avionics suites, Sussenberger said. “You can’t do that with spray cans and patches. A guy spends \$150,000 on avionics – he wants his panel to look right. And, if you put any antennas on pressurized airplanes, you need DER engineering approval and someone to read the drawings and execute the design. It



Photo by S.M. Spangler

In Bendix-King’s AirVenture seminar tent, two early birds await the start of the program on the AV80R.

isn’t just hooking up wire. All that requires education.”

When taking a short-term view of continuing education, the dollars of lost productivity, travel and tuition hang heavy over the long-term sense of investing in it. “I don’t have a way to qualify what was learned and how it benefitted our business by having a technician out of the shop for three days, and you can’t make them use what they learn all the time,” Sussenberger said, chuckling.

But, this he knows for sure. Attending educational seminars and workshops makes technicians better, “it gives them more pride in being a technician.” Those who never leave the hangar “think that’s as big as the world is,” Sussenberger said. At an educational session, “they are commiserating with other technicians from all over the country or all over the world, and they realize that aviation is a big place. It helps you find your place in your profession. In that case, they do grow up, and you can see it. From a guy who’s never been, when he gets back there’s a different look in his eye, a different attitude about what he does.” □