

# Training the aviation technicians of tomorrow

Everett Community College's aviation maintenance program has been at Paine Field (now the Snohomish County Airport) since 1968, and is looking to the future so that they can train the next generation of technicians.

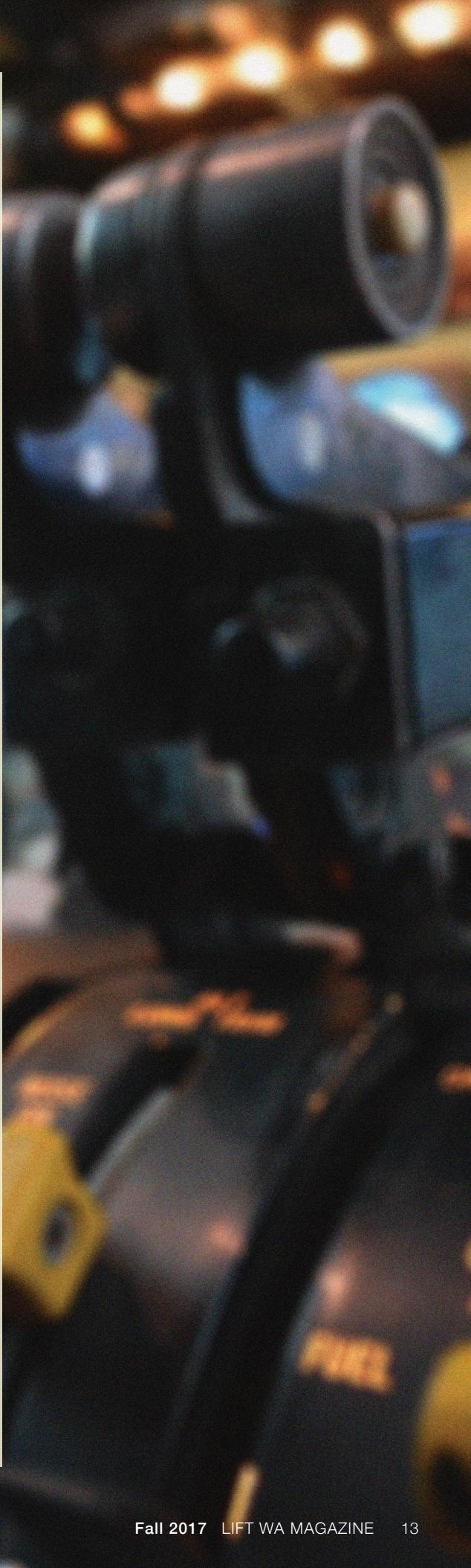
In 2016, EvCC became the first college in Washington state to offer an advanced avionics program. The college created the program after hearing about the need for aircraft electronics technicians from the aerospace industry.

The Boeing Company's 2016 Pilot and Technician Outlook report identified avionics as one of the largest skill gaps among aviation maintenance technicians. Other industry partners, such as Delta and Alaska Airlines, as well as avionics manufacturers and repair shops, also identified avionics as one of the largest skill gaps in the industry.

The Part 147 Consortium, known as the Fighting 147s, is chaired by Rob Prosch, EvCC's associate dean of aviation, and meets quarterly with the Washington State Center of Excellence for Aerospace and Advanced Manufacturing. Avionics training is an industry-driven initiative that has been the core of their work over the past year.

The consortium worked closely with the Center of Excellence for Aerospace and Advanced Manufacturing, Boeing, Delta Airlines, Alaska Airlines, Rolls Royce, Nida Corporation, Dynon Avionics, and other regional avionics manufacturers to develop curriculum outcomes for the advanced avionics program at EvCC.

Other colleges in the region offer introductory avionics programs based in electronics, but our program also maintains an FAA Part 147, which allows us to link the two programs together. That link



## Curriculum:

- *Electricity*
- *Electronics*
- *Fiber optics and wiring*
- *Digital tools and techniques*
- *Data bus training*
- *FCC license preparation*
- *License endorsements*



John Bonner leads the Everett Community College's Office of Corporate & Workforce Training, which includes EvCC's Advanced Manufacturing Training & Education Center (AMTEC), Aviation Maintenance Technician School, and the Corporate & Continuing Education Center (CCEC).

gives our students unique and advanced opportunities to learn avionics systems in aircraft.

The advanced avionics program includes college certificates and degrees that tie into our A&P program so students can be fully prepared to be an aircraft electronics technician or avionics technician. The curriculum consists of electricity, electronics, fiber optics and wiring, digital tools and techniques, data bus training — including computer language and a bit of programming so they can work on the computer systems found in avionics, including microprocessors — and FCC license preparation and license endorsements. The last thing students learn is a systematic approach to troubleshooting for avionics, both theoretical and hands on. Unique to our program, students are also evaluated on soft skills including participation, teamwork, and documentary discipline.

While EvCC is the first of the state's Part 147 schools to offer the advanced avionics program, the plan is for other schools to emulate our courses and programming and implement similar programs according to their own timelines.

Avionics is a very expensive program to implement. The program was launched with support from EvCC's Board of Trustees, the college's operating budget, and through grants from the state and local industry.

Industry has stepped up in a big way to make the program possible by way of equipment and materials donations. Fluke provided EvCC with \$38,000 worth of electronic test equipment. Dynon Avionics donated a working mock-up of a general aviation glass cockpit, valued at \$25,000. Without this kind of industry support, we wouldn't have been able to get the program off the ground. Our partners understand that by partnering with the college, they have a direct hand in creating their own workforce pipeline. 