

AEROSPACE TRAINING

“The aerospace industry and Boeing Commercial create enormous amounts of economic activity and fiscal benefits to the State of Washington – more than any other single private sector employer or industry.” Washington State Aerospace Industry Economic Impact Study, November 2013

Making aerospace soar



Aerospace is an economic powerhouse that generates jobs and fuels our economy. Washington's community and technical colleges produce the world-class employees needed to keep it that way.

With about 1,250 aerospace-related firms employing more than 94,000 workers, Washington has the largest concentration of aerospace expertise in the nation.¹ To stay competitive, these companies need mechanics, machinists, programmers, assemblers and other employees trained at community and technical colleges.

Twenty four of Washington's 34 community and technical colleges² offer training demanded by the state's aerospace-related firms, moving well-trained workers into well-paying jobs.

Air Washington

Air Washington is a consortium of 11 community and technical colleges and one apprenticeship training program partnering to train the next generation of aerospace workers (see “apprenticeships” on reverse side).³ The consortium focuses on five programs of study:

- Advanced manufacturing
- Aircraft assembly
- Airframe & powerplant
- Composite materials
- Avionics/electronics

Air Washington is funded by a \$20 million federal Department of Labor grant. The original goal was to train 2,615 workers by fall 2014. That goal has already been exceeded with colleges training 3,155 new workers as of December 2013.⁴

Composites Washington

Composites are crucial to the aerospace and marine industries and other key economic sectors, including energy, automotive and mass transit. An alliance of community and technical colleges called “Composites Washington”⁵ is creating a talent pool of technicians for the more than 100 Washington companies engaged in composites manufacturing, fabrication, repair and advanced materials research and development.⁶

The group is led by two Washington State Centers of Excellence: Aerospace and Advanced Materials Manufacturing at Everett Community College, and Marine Manufacturing and Technology at Skagit Valley College.

In 2013, college instructors were trained and certified to teach the latest composites technology. Training was provided by Abaris, the company contracted to train Federal Aviation Administration (FAA) safety inspectors in advanced composite maintenance and repair.

A 2008-2013 review of five aerospace-related programs found a 1,293 percent increase in plastics engineering technical programs, which focus mainly on composite technology.⁷

FAA-certified courses

Five colleges offer FAA-certified training so students can test for their Airframe and Powerplant licenses and repair planes built in the United States. The colleges – Everett, South Seattle, Clover Park, Big Bend, and Spokane – are working to create a common, integrated curriculum to make it easy for students to transfer between schools. The colleges are also working with the FAA to modify national requirements to allow students to advance in training based on credits earned rather than classroom time.

Apprenticeships

The Aerospace Joint Apprenticeship Committee (AJAC) designs, develops, and implements apprenticeship programs for aerospace and manufacturing occupations. AJAC is comprised of industry employers, employees, and the International Association of Machinists and Aerospace Workers (IAM).

Aerospace and manufacturing apprentices take classes one night a week at a community or technical college and receive on-the-job training during the day at a company's job site. Six community and technical colleges participate in AJAC apprenticeship programs: Renton, South Seattle, Bates, Spokane, Columbia Basin and Yakima Valley.

Sources:

1. "Aerospace Manufacturing Skills: Supply, Demand, and Outcomes for Washington's Aerospace Training Programs, Annual Report - 2013" by the Workforce Training and Education Coordinating Board and State Board for Community and Technical Colleges
2. Colleges offering aerospace-related training: Bates, Bellingham, Big Bend, Centralia, Clark, Clover Park, Columbia Basin, Edmonds, Everett, Green River, Highline, Lake Washington, Lower Columbia, North Seattle, Olympic, Peninsula, Renton, Shoreline, Skagit Valley, South Seattle, South Puget Sound, Spokane, Wenatchee Valley and Yakima Valley
3. Air Washington colleges: Big Bend, Clover Park, Everett, North Seattle, Olympic, Peninsula, Renton Technical, Skagit Valley, South Seattle, Spokane and Wenatchee Valley
4. Air Washington fact sheet, Feb. 27, 2014
5. Composites Washington colleges: Clover Park, Edmonds, Everett, Olympic, Peninsula, Skagit Valley, Spokane and South Seattle
6. "Choose Washington," state Department of Commerce description for JEC composites show 2014
7. SBCTC analysis

Strategic, coordinated training

Center of Excellence/Everett Community

College: Colleges share cutting-edge curricula designed jointly with aerospace leaders and industry subject-matter experts. Leading the way is the Center of Excellence for Aerospace and Advanced Manufacturing. The center is a one-stop hub for the industry and experts to design curricula that's deployed system-wide. Aerospace employers and qualified workers can connect easily thanks to online tools available on the center's website at coeaerospace.com.

Washington Aerospace Training Center (WATR)/Edmonds Community College:

Located at Paine Field, the WATR training center offers short-term certificates for aircraft-assembly, maintenance, and inspection jobs in the large aerospace manufacturing plants and related businesses of the Puget Sound corridor. The WATR assembly mechanic program is also available through Renton Technical College.

Aerospace Pipeline Committee: Created by the Legislature in 2012, the Aerospace and Advanced Materials and Manufacturing Pipeline Advisory Committee (Aerospace Pipeline Committee) monitors the aerospace industry's employment needs and works with industry partners and the community and technical college system to meet the demand. The committee is made up of representatives from industry, labor and education, with the majority from the aerospace industry. Through 2016, the committee is tasked with producing an annual report scanning the landscape of aerospace-related training. Reports can be found at www.wtb.wa.gov/Pubs_Publications.asp.

During the November 2013 special aerospace legislative session, the community and technical college system received an additional 1,000 FTEs for high-demand aerospace training. The committee played a key role in framing the need for expanded training.

