



Symbiotic sectors nurture new frontiers for Washington aerospace industry

By Brian Bonlender, director Washington State Department of Commerce

Washington state's second century of innovation in aviation and aerospace is poised once again to move the world forward in new areas of this dynamic industry.

Those first 100 years are studded with the names of global industry leaders: Boeing, Aerojet Rocketdyne and Heath Tecna, to name only a few. As the knowledge-based economy grows, a new generation of business pioneers—Microsoft, Amazon, Blue Origin—flourish side-by-side on a family tree deeply rooted in the same visionary values that propelled their predecessors.

Today, the proximity of deep expertise in cloud computing, data analytics, advanced manufacturing, composite materials, clean tech, information and communications technology is igniting new opportunities to change the way we all live, work and play.

This is especially true in Washington's aerospace industry, where symbiotic business relationships thrive and drive some of the most exciting developments anywhere in commercial and defense aerospace. Healthy collaboration is a unique competitive advantage for our state in new sub-sectors of unmanned vehicles and commercial space.

What binds this all together is our deep well of talent. Washington's world-class workforce is our greatest asset for business attraction, retention and growth. Inspired, motivated people design and build the best products, and they are also the risk-takers who branch out and build new companies.

In the first 100 years of this industry, processes for standard aerospace manufacturing (think welding and press brakes) advanced to precision tooling and machining to automation and robotics, requiring more high-tech job skills. Computing power revolutionized every aspect of the aerospace supply chain, from design, analysis and certification to structures, avionics, controls, and even entertainment systems and logistics.

From fixed wings and helicopters to NASA rockets and unmanned aerial systems, pioneering Washington businesses—and their workers—have made their mark on the industry at every turn.

Another great strength of our state's economy is diversity, and now as converging technologies transform every key sector, companies and entrepreneurs can find incredible ecosystems here.

Washington can support businesses eyeing a full range of new opportunities in aerospace. Some will evolve from our desire to work and travel in space. Others will take advantage of the relatively low-cost barrier to entry for drones and unmanned systems. Still more will thrive as we move to a low-carbon future.

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Brian Bonlender is director of the Washington State Department of Commerce. Under his leadership, the department has revitalized and increased the state's economic development capabilities, expanded and linked its economic and community development programs, and refocused around the shared purpose of strengthening communities. Brian holds a bachelor of science from Washington State University.

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Blue Origin

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capsule and propulsion module. These are usually small quantity orders that require fast-turnaround parts.

“More than half of our business comes from Blue, and more than half of our employees are dedicated to Blue projects,” McNeeley said. “We’ve been able to make several capital improvements because of Blue’s business. We work with them closely, and that close proximity and hands-on time is critical to our business and definitely impacts the bottom line.”

While Blue Origin operates facilities in multiple states, Washington is our home. It’s one of the most innovative states in the nation and a huge proponent of progress in the aerospace industry. We salute the state policymakers who also recognize this and have taken action over the years. Their business-friendly legislation has allowed us to stay here, and more importantly, supported the rapidly growing commercial space sector.

Now, we aim to expand the discussion. We look forward to engaging with our governor, state legislators and local government officials to show them first-hand how continued business-friendly legislation will help us carry on our mission to ensure America’s leadership in the technology and aerospace sectors. 

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Bloomberg recently ranked Washington #1 in the US for science, technology, engineering and math (STEM) education concentration. To meet the growing demand for skilled workers, we continue to forge strong public-private alliances to develop and maintain leadership in our most powerful competitive advantage—our people.

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Raw carbon fiber is produced in Pierce County, precision crafted into composite parts in Sedro Wooley, and recycled in Port Angeles with the help of machines made in the Kent Valley. The largest composite aircraft wing in the world is produced in Everett, more new planes roll off Renton assembly lines than anywhere else in the world while commercial and military aircraft structures are designed, fabricated, maintained, repaired and overhauled in Spokane, and planes are flight tested for FAA certification in Moses Lake. Researchers in a state-of-the-art lab in Frederickson advance the world of composite materials, which may inspire a new unmanned aerial system from Bingen, that will aid a grower in Yakima County or a defense company near JBLM.

Our aerospace sector provides a historical model for collaborative innovation and leadership. It’s also a blueprint for future success. In this emerging era of the Internet of Things (IoT), machine learning, augmented/virtual reality (AR/VR) and so many intriguing possibilities, Washington is primed to grow existing and new businesses from all over the world, right here at home. 

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on educating and nurturing the workforce of tomorrow, as well as re-skilling those that have been laid off. State government leaders should consider supporting expanded class sizes of our higher education and vocational institutions to deliver curriculum in systems integration, software design, coding, and testing, industrial and quality engineering.

Just as seen in the case of the automobile, personal computer or mobile phone manufacturing industries, aerospace is not immune to the inevitable march of commoditization.

Thus, success will be in building better products with more functionality at a lower price point—better before cheaper. In order to maintain our regional aerospace leadership for tomorrow, education matters. The world is watching us. John Naisbitt in his Megatrends book predicted as much. 

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