Washington State's Space Success Story

The space industry in Washington state doubled between 2018 and 2022, and now supports more than 13,000 jobs. As of May 2023, there were more than 1,000 open space industry jobs in the Seattle area.

The ingredients of our state's success include a concentration of experts in the fields of aerospace manufacturing and software development, the pioneering science research conducted at regional educational institutions like UW and WSU, and enthusiastic local seed investors.

U.S. Senator Maria Cantwell (D-WA) identified space as a growth industry for Washington state. During her time in the Senate she has worked to attract federal resources and pushed for policies that have leveraged private-sector investment and positioned Washington's space industry for growth and success.

NASA is planning to take Americans to the Moon and Mars, and the people of Washington state will help them get there.

Nurturing the Development of Washington's Space Industry

Sen. Cantwell is a longtime member of the Senate Committee on Commerce, Science, and Transportation -- which oversees NASA and the U.S. aerospace industry. Since 2019, she has chaired the committee.

- In 2003, Sen. Cantwell sponsored legislation to <u>create</u> a new federally-funded "Center for Excellence" in the research of composite materials for aircraft at UW.
- In 2012, Sen. Cantwell helped <u>secure</u> a \$20 million Department of Labor grant for Air Washington to train more than 2,600 advanced aerospace manufacturing workers.
- In 2014, Sen. Cantwell helped Washington state's aerospace community <u>earn</u> designation as one of 12 manufacturing communities nationwide to be seeded with federal support.
- In 2022, Sen. Cantwell <u>spearheaded</u> passage of the CHIPS & Science Act, one of the largest five-year federal research and development investments in U.S. history.
- The CHIPS & Science Act also <u>included</u> the first new NASA Authorization since 2017, which enshrined the Artemis missions in U.S. law to return Americans to the surface of the Moon.

A Snapshot of Washington's Space Industry

- Washington's space industry has an economic impact of \$4.6 billion annually and supports a total of 13,103 jobs.
- The Artemis program <u>has</u> 42 suppliers in Washington state. Washington companies are going to help us return to the Moon and place the nation on stronger footing to get to Mars.
- Blue Origin opened the O'Neill Building in 2020, a new 232,885 square foot facility in Kent. In May 2023, NASA <u>selected</u> Blue Origin as the second builder of a human landing system for the Artemis program, creating competition and redundancy in our human lunar exploration plans (a capability long-sought by Sen. Cantwell.) The contract is projected to support more than 1,000 jobs in WA.
- SpaceX leased a new 125,000 square foot building in Redmond Ridge Business Park in 2021 to expand its Starlink facilities in Redmond. They build more than 30 Starlink satellites per week at the facility.

- Redmond-based Project Kuiper is planning to send a constellation of 3,236 satellites into orbit, with half to be launched by 2026. Kuiper <u>plans</u> to build up to 4 satellites per day in their recentlyannounced 172,000-square-foot satellite production facility in Kirkland. The new facility will create more than 200 highly skilled aerospace and manufacturing jobs.
- Two women from Washington state, NASA astronauts Kayla Barron of Richland and Anne McClain of Spokane, are under consideration for the Artemis III crew that will return Americans to the surface of the Moon for the first time in over 50 years.

America's Plan for Outer Space

- UBS and Morgan Stanley have pegged the value of the space economy to reach \$900 billion to \$1.1 trillion by 2040.
- The next Artemis mission Artemis II is scheduled to launch in November 2024. The flight will send the four-astronaut crew around the Moon and demonstrate Orion's capabilities.
- Artemis III, currently scheduled for December 2025, will return Americans to the lunar surface for the first time in more than 50 years. The mission will include a woman and a person of color.
- The Artemis program also aims to develop the technology and operational experience needed to land the first human on Mars.
- Starlink, Project Kuiper, and others will launch more satellites to provide better internet access to more people. The company estimates that nearly 65,000 households in the state (180,000+ people) rely on Starlink for high-speed broadband access.

Securing the Future of Washington's Space Industry

- The WA space industry is well-positioned to lead in the areas of satellite manufacturing and operations, launch vehicles, and commercial space stations. A multi-year reauthorization for NASA will ensure stable guidance for the agency's programs.
- Several Washington companies are part of NASA's Hi-Rate Composite Aircraft Manufacturing (Hi-CAM) project, which supports lightweight thermoplastic and composite materials research and manufacturing. Sen. Cantwell has urged NASA to accelerate investment into composite manufacturing, and is advocating for a Manufacturing USA Institute focused on composites to be sited in the Pacific Northwest.
- Washington is the number one state in STEM job growth. However, Washington faces a potential gap of 60,000 workers by 2026, and the nation faces a 3 million-worker gap in STEM by 2030.
 Sen. Cantwell's CHIPS & Science Act authorizes tripling the amount of money at the National Science Foundation for STEM workforce training, but the money must still be allocated by Congress.
- The CHIPS & Science Act also authorizes \$200 billion for scientific R&D and commercialization of the type conducted at UW and WSU. This vital investment to ensure America continues to lead the world in advanced science research must still be allocated by Congress.