

# Amid Boeing's Starliner troubles, WA space industry thrives

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It'd be reasonable to think Washington's space economy has a lot riding on Boeing's Starliner, the spacecraft that left two astronauts stranded on the International Space Station and headed back to Earth with an empty

cabin Friday.

The astronauts were scheduled to return on Starliner in June after a week on the ISS, but thruster failures and helium leaks on the way there made NASA decide a trip back on the Boeing spacecraft was too risky. Boeing's troubles with Starliner date back years, including a flawed, unmanned test flight in 2019 that had to be repeated in 2022.

But, outside of some classified [satellite](#) jobs that pop up in South King County, Boeing's efforts in the Seattle area are largely centered on its commercial airplane business, according to industry experts. Instead, the biggest players in the Seattle area's space industry are Amazon, Blue Origin and SpaceX.

"The Seattle space ecosystem is small but mighty because we have companies here that cover the entire space supply chain," said Stan Shull, founder of space technology consulting firm Alliance Victory.

Shull said there are the space and tech giants like SpaceX and Amazon manufacturing thousands of satellites in their Starlink and Project Kuiper divisions, respectively, and Blue Origin with its rocket engines and spacecraft. There are also the dozens of startups and suppliers that supplement the industry, providing everything from thrusters for NASA spacecraft to in-space satellite servicing.

Some companies, led by former Blue Origin and SpaceX employees, are driving innovation as well. STOKES Space, a startup based in Kent, Washington, with a testing facility in Moses Lake, is working on fully reusable rocket technology.

"That's technology that I'm not sure SpaceX is even working on," Shull said.

STOKE announced last year that it received \$100 million in a funding round, bringing its total funding up to \$175 million.

Marysville-based space infrastructure startup Gravitics received a \$125 million contract in July to expand a planned private space station for Axiom Space, a company that wants to build space stations. Gravitics said in a July news release that as NASA plans to retire the ISS at the end of the decade, it's capitalizing on the companies looking to launch commercial space stations.

Tukwila-based Starfish Space received a \$37.5 million government contract in May to build a satellite servicing vehicle for the U.S. Space Force.

"The Seattle-area space sector is broad and uniquely entrepreneurial," Shull said. "It grew up without a major federal space presence that places like Texas and Florida benefit from."

The anchor companies are driving employment in the region. While smaller companies like Aerojet Rocketdyne have more than 100 employees dedicated to developing and producing thrusters, only Amazon, Blue Origin and SpaceX have workforces of more than 1,000 in the Seattle area dedicated to space.

Blue Origin, created by Amazon founder Jeff Bezos in 2000, has had a sizable workforce for years, reaching more than 4,000 in 2023. But Amazon and SpaceX have recently expanded their space-employee head counts.

As of last year, SpaceX had 2,000 employees based in the Seattle area, up from less than 1,000 the year before, according to the Puget Sound Business Journal. The company has effectively made Redmond, Washington, its engineering center for Starlink, the satellite constellation

that provides mobile broadband internet.

Craig Baerwaldt, founder of local space networking organization Space Happy Hour, said that most if not all of Starlink's 7,000 satellites have been manufactured in Redmond.

Starlink, like Amazon's Project Kuiper, is a planned constellation of satellites that will provide widespread internet access.

"Exuberance from two years ago ... seems to be gone," he said. "But with SpaceX recently launching its 7,000th satellite and Kuiper continuing to sign deals with various launch companies, the space economy here continues to be strong."

The exuberant days Baerwaldt referred to were a stretch of time between 2021 and 2022 when local space startups were going public via special-purpose acquisition companies—shell corporations merged with a private company and funds from investors. Shull said a wave of the SPAC companies are struggling or going out of business, but the ones still around are on firm footing.

BlackSky, one of the survivors of the SPAC era, is also a highlight of the Seattle space economy, according to Shull. The satellite imagery company secured a 10-year contract with the National Reconnaissance Office in 2022 and has all of its satellites manufactured locally by LeoStella in Tukwila.

Amazon's Project Kuiper has more than 2,000 employees in the Seattle area spread across corporate offices in Bellevue and a manufacturing plant in Kirkland but mostly in the division's headquarters in Redmond. It's also opening a logistics hub in Everett, Washington.

Project Kuiper plans to launch more than 3,000 low-Earth orbit satellites

and has a license with the Federal Communications Commission that requires it to launch 1,600 by mid-2026.

Shull said that among 50 of the largest space companies in the Seattle area, there were nearly 1,200 open jobs at the end of August, up about 31% from the start of the year. The lion's share of those roles come from the big three companies, largely thanks to the focus on satellites.

"Satellites are where the dollars and cents are in space," Shull said.

"Passenger spacecraft and commercial travel are fun to think about, but the demand to get into space is coming from an insatiable appetite for bandwidth and data insights."

According to Shull, more operational satellites are manufactured in Washington than anywhere else, largely thanks to SpaceX so far. But as Amazon ramps up production, that gap for Washington could grow.

"For the foreseeable future," he said, "Seattle is the satellite capital of the world."

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