

Bowles Rice VIEWS & VISIONS

BOWLESRICE.COM

FALL/WINTER 2022



Alivia Chapla
Astrobotic Technology

A member of The Planetary Society and an avid space fan, Alivia Chapla serves as the Marketing and Communications Director for Astrobotic Technology – a Pittsburgh-based aerospace company and developer of space robotics technology for lunar and planetary missions. Prior to joining Astrobotic, Chapla worked on the agency side of the advertising industry, serving national and regional brands as well as local nonprofits. She returned to the Steel City to help Astrobotic achieve its mission to make space accessible to the world.

Steel City Becomes the Space City

Early next year, Pittsburghers will watch alongside the rest of the world as America lands on the Moon for the first time since the Apollo program. Behind the curtain of this historic feat is the “ground crew” from Pittsburgh robotics company, Astrobotic — whose team engineered and built the Peregrine lunar lander, carrying cargo (also called payloads) to the Moon.

Astrobotic’s Peregrine might be made of aluminum instead of steel, but the spacecraft is not lacking in Pittsburgh grit. From its name (in honor of the falcons that inhabit several of Pittsburgh’s skyscrapers) to its payload manifest (including a Kennywood token from the Heinz History Center), Peregrine proudly displays its Pittsburgh spirit.



For Peregrine, the company has 16 deals in place, representing six nations, toward its first mission in 2023. These deals include everything from a \$79.5 million award to deliver 11 NASA payloads to the lunar surface, to a sponsorship from international shipping company DHL that allows individuals to put personal mementos aboard.

“Astrobotic’s Peregrine might be made of aluminum instead of steel, but the spacecraft is not lacking in Pittsburgh grit.”

Mission: Access

Astrobotic’s mission is to make the Moon accessible to the world. Previously, only powerhouse nations and wealthy individuals could afford to access space and the lunar surface. Astrobotic is changing this narrative by offering a business model much like a bus. Think of Peregrine as the bus and the payload customers as the passengers. Each passenger buys a ticket aboard Peregrine. Astrobotic then delivers all the customer’s payloads to the Moon; companies, governments, universities, and individuals around the world are all welcome aboard.

Alongside its lunar landers, Astrobotic also builds mobile rovers, hazard detection software, power infrastructure grids, and more space-related technologies. All these technologies work together to form a comprehensive lunar logistics experience for customers where Astrobotic can deliver payloads to the Moon on landers, drive payloads across the lunar surface on rovers, and now provide watts of power on the Moon with LunaGrid.

“Astrobotic may be off the ground now, but I remember a time we were laughed out of the room for believing that Pittsburgh could be



part of the growing space industry. Now, we've started a chain reaction in the Keystone region where manufacturers, shipping companies, and suppliers all have their place in modern space," says John Thornton, Astrobotic CEO.

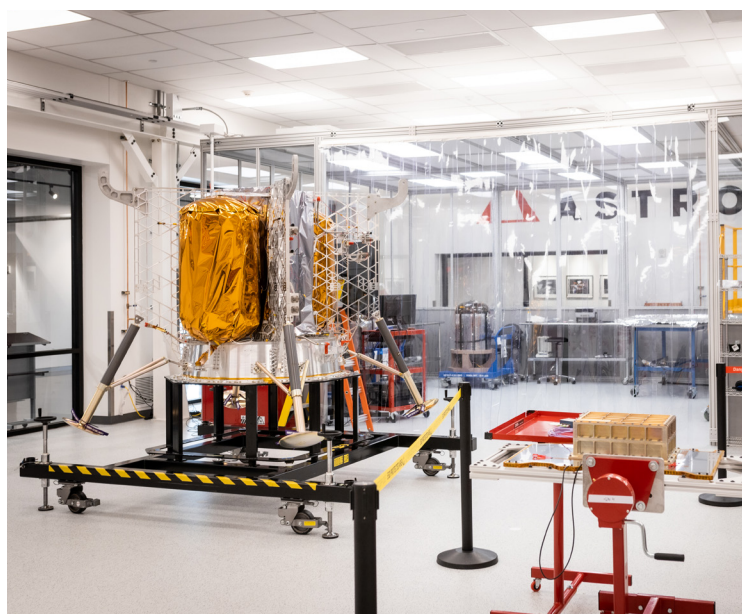
"Off the ground" may be an understatement. Astrobotic is an official delivery provider for NASA through the Commercial Lunar Payload Services (CLPS) program and has 50+ past and ongoing NASA contracts. Astrobotic was founded in 2007, employs 175+ full-time employees, and has a new - 50,000 sq. ft. Lunar Logistics Headquarters in Pittsburgh's Northside built by local construction company PJ Dick.

Though the company has international connections through contracts with NASA, AEM (the national space agency of Mexico), DLR (the German space agency) and others, Astrobotic maintains its local relevance. The company formed nonprofit Moonshot Museum, a space museum that gives visitors a look into the space industry. They also struck up a deal with a Strip District staple: La Prima Espresso Company.

"A crowd-favorite collaboration is with La Prima. Their coffee is as vital a staple in our office as electricity. La Prima even created a special roast for us around the holidays. We had a naming contest for the roast and the staff really got into it. Our first official coffee roast was deemed 'One Small Sip,'" says Ander Solorzano, Flight Director and Principal Systems Engineer.

Pittsburgh's Space Heritage

Pittsburgh has always been an important contributor to the space industry. Westinghouse helped develop the camera that filmed Neil Armstrong's first steps on the Moon. PPG was



CONTINUED ON PAGE 42



CONTINUED FROM PAGE 27

Alivia Chapla

Steel City Becomes the Space City

instrumental in developing the windows in the Apollo spacecraft. Jack Kinzler, a native Pittsburgher, developed the telescoping flagpole to hoist the American flag on the Moon.

Pittsburgh is also leading the way to develop power infrastructure on the lunar surface. Much like Pittsburgh's Westinghouse Electric Corporation was one of the first companies to power the nation, Astrobotic's LunaGrid is slated to be the first power grid on the Moon and will provide safe, reliable, widespread, and user-friendly power to assets on the

lunar surface. In the near term, LunaGrid will include landers, rovers, and science instruments which are already manifested on funded missions to the Moon through NASA CLPS and other space programs. In the long term, these assets will include resource extraction plants, habitats, and other infrastructure planned as part of the greater Artemis program and future commercial missions.

Peregrine and Pittsburgh Taking Flight

Peregrine's shiny metal structure reflects Pittsburgh's past, present, and future. Once the world hub of steel manufacturing, the region has rebounded from the loss of its former industry by welcoming cutting-edge technology start-ups to make their home here. Astrobotic is one of these fast-growing startups who are changing the face of Pittsburgh industry while retaining the city's enterprising ethos. 