

Located in Webster's backyard, NASA-Johnson Space Center (JSC) is just four miles east of Interstate 45 on NASA Parkway. From the early Gemini, Apollo, and Skylab Programs to today's International Space Station, Orion Program, and the commercialization of space by launching rockets and satellites, transporting cargo and crew, and building infrastructure in low-Earth orbit to tomorrow's Artemis and Gateway Programs and astronaut voyages across the solar system, JSC leads NASA's human space exploration initiative.



NASA's Johnson Space Center leads the U.S. human space exploration initiative.

MAJOR EMPLOYMENT SECTOR

As JSC employs 15,000 civil servants, astronauts, and contractors, aerospace is an important economic driver for the city, region and state and complements thriving industry sectors in Webster's super-regional market, like healthcare, technology, higher education, specialty chemical, energy, environmental science, tourism, retail, and entertainment. NASA's JSC is a \$1.5B complex encompassing 1,620 acres with a \$4.7B impact on Texas' economy and supports more than 52,000 jobs, according to the State Comptroller.

With the implementation of the Space Policy Directive 1, whereby the US leads an innovative and sustainable program of exploration with commercial and international partners to return humans to the Moon for long-term exploration and utilization, followed by human missions to Mars and other destinations, NASA's JSC role is of critical importance, as JSC is Mission Control—the home base for human spaceflight and operations in the United States.

TRILLION-DOLLAR INDUSTRY

In the regional, national, and international arena, space is the high ground and the next trillion-dollar industry. NASA's JSC represents an integral part of the United States' leadership and security.



The International Space Station (ISS), which joins 16 nations, continues to be a centerpiece program for NASA. The ISS, the largest spacecraft ever built, circles the earth at 17,000 mph and is the astronauts' habitat for an average of six-month intervals. Several companies with facilities and innovators in Webster support the ISS Program, such as Leidos, Nanoracks, KBR, Boeing, Airbus, and Ad Astra Rocket Company.



The International Space Station, the largest spacecraft ever built, continues to be a centerpiece program for NASA and is operated from Johnson Space Center and supported by many local contractors.



Just about everything astronauts aboard the ISS touch, wear, consume and do bears Leidos' signature from Webster. From a 55,000-square foot facility on Forge River Road in Webster, Leidos, a Fortune 500 company, supports human spaceflight and deep space exploration to enable NASA's next great discovery. Leidos' 129-member team inside the Forge River facility and 284-member team on site at JSC prepare astronauts for space travel, zero-gravity living, and daily work. From laptops to space suits, tortillas, toothpaste, and experiments, Leidos has shipped more than 220,000 pounds of supplies to the ISS, as of January 2021, with each shipment averaging between 4,000 and 7,000 pounds.



Inside the Leidos' Engineering Lab, Ernest Sanchez and Tanya Hanway observe as Lee Risinger solders components onto the circuit board for a power supply to prepare for use in the ISS.

Leidos is poised to be the supplier to Gateway—the lunar orbital platform that brings astronauts to the moon to operate a space station and serves as a “gateway: for deep space missions.

The Nanoracks logo features a stylized graphic of four parallel, slanted black bars of varying lengths, followed by the word "Nanoracks" in a bold, sans-serif font.

Nanoracks

Nanoracks, another innovative Webster company and NASA partner, has built and installed a bigger, better portal on the ISS—the Bishop Airlock. For the past decade, Nanoracks, with its headquarters in Webster on Forge River Road, has been making history. Nanoracks, whose motto is “your portal to space,” is a commercial space logistics and space habitat company that has launched over 800 payloads to the ISS and made space accessible to all. With the development and installation of the Bishop Airlock, the first commercially developed and privately owned component on the ISS, Nanoracks rendered the doorway to space bigger, bolder, and more user-friendly—transforming the global business of space.



Nanoracks Project Manager Brock Howe and Mayor Donna Rogers stand in front of the Bishop Airlock, the ISS' first commercially developed and privately owned component, that ushers in a new era for space business.

The Bishop Airlock ushers in a new era for the space industry, as this airlock is five times larger than the Japanese Experiment Module (JEM) Airlock and offers the opportunity for increasing the size, number, and frequency of payloads to and deployment from the ISS.



KBR, another Fortune 500 company with Webster facilities, provides mission and flight crew operations for the ISS and Orion crew vehicle. KBR, with a local workforce of 600, oversees every aspect of spacesuits, including engineering, maintenance, testing, and training. KBR is the second largest engineering support contractor for NASA and trains astronauts for myriad duties—flight, maintenance, and operations of ISS systems and exploration.



KBR, with a state-of-the-art Webster facility, oversees every aspect of spacesuits – engineering, maintenance, testing, and training.



Boeing, a company renowned for aerospace and aeronautics innovation, is building the CST-100 Starliner—a crew capsule designed to transport astronauts and cargo to low-Earth orbit destinations, such as the ISS and private space stations. Boeing employs a workforce of 500 locally to develop this safe, reliable cost-effective solution for crew transportation and future space habitats.



Boeing's CST-100 Starliner is designed to carry up to six astronauts and cargo to the International Space Station and other low-Earth orbit destinations.



For missions to Mars and beyond, Ad Astra Rocket Company led by Hall of Fame Astronaut Dr. Franklin Chang-Diaz has been revolutionizing in-space propulsion from its Webster headquarters for several decades. Ad Astra was founded to develop, test, and commercialize the technology of the VASIMR engine, a plasma propulsion system that is much more fuel efficient and faster than traditional chemical rockets. Lengthy journeys to the planets and stars require new technologies that rely on the power of plasma accelerated by electric and magnetic fields. The VASIMR technology is being utilized for asteroid missions, orbital debris disposal, catapult applications, and the Aurora Mission.



Dr. Franklin Chang Diaz and Mayor Donna Rogers discuss the next milestones for the famous VASIMR® plasma rocket engine that has already set new records.