National Aeronautics and Space Administration

NASA's Impacts in Texas: A Tech Transfer Perspective

You know that NASA studies our planet, our sun, the solar system, and the Universe. But did you know that the space program is having impacts here on Earth?

The Technology Transfer Office at **NASA Johnson Space Center** is dedicated to forming partnerships that can positively contribute to—and benefit from—NASA's research and development (R&D) and technology innovations. Read on to learn more about NASA's impacts in Texas. Or contact us for more information.

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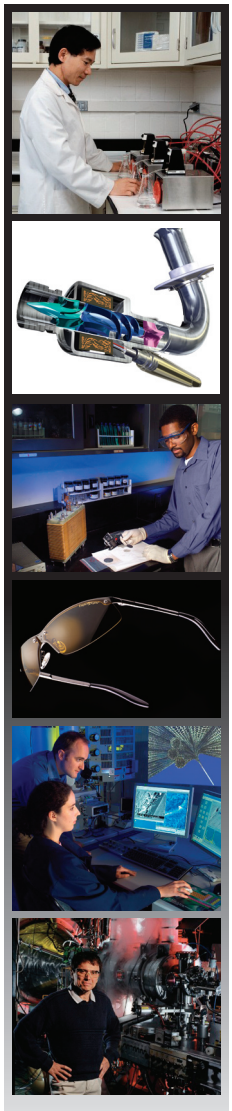

More information on the SBIR/STTR Program is available online http://sbir.nasa.gov

Small Business Innovation Research/Small Business Technology Transfer

The Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Program provides an opportunity for small (500 employees or less) high-tech companies to participate in NASA-sponsored R&D efforts in key technology areas. In STTR projects, the businesses partner with a research institution, such as a university.

In the past 5 years alone, small Texas companies have received **$27.7 million** in funding related to NASA's SBIR/STTR Program.

The following lists Texas businesses that received NASA SBIR/STTR contracts between 2003 and 2007. Individual projects lasted between 6 and 24 months with funding ranging from $70,000 to $600,000, depending on the year of participation and the type of contract awarded.

Company	*Texas location*
Advanced Powder Solutions	Houston
Agave BioSystems	Austin
AM Biotechnologies	Galveston
BioTex	Houston
Calnetix	Austin
Carter Aviation Technologies	Wichita Falls
Coherent Logix	Austin
Concrete Solutions	Austin
ENTECH	Keller
Genexpress Informatics	Austin
Geospatial Research Innovation Design	Corpus Christi
HPN Software Consultant	Houston
Integrated Micro Sensors	Houston
Invocon	Conroe
Ionwerks	Houston
Lynntech	College Station
MEMtronics Corp.	Plano
Metrica	San Antonio
Nano EnerTex	Houston
Nanohmics	Austin

Company	*Texas location*
NanoTex Corp.	Houston
Odyssey Space Research	Houston
Omega Optics	Austin
Operational Technologies Corp.	San Antonio
Opin Technologies	Austin
Picotronix/dba Picometrix	Houston
Polatomic	Richardson
Rechargeable Battery Corp.	College Station
StarVision Technologies	College Station
Stellar Micro Devices	Austin
Systems & Processes Engineering Corp	Austin
Tietronix Software	Houston
Traclabs	San Antonio
Valeo Human Performance	Houston
Whereabout	Universal City
Winzen Engineering	San Antonio
Zyvex Corp.	Richardson

texas

Spinoffs and Other Licenses

Innovative technologies from NASA's space and aeronautics missions can be used in other ways that benefit society. Therefore, NASA is committed to "spinning off" its innovations into new products—as well as providing access to its technologies, facilities, and expertise. The following presents just a few of the Texas companies that have accessed NASA technology through Johnson Space Center.

Organization	Use of space-program technology
Ad Astra Rocket Co., Webster	Licensed a variable specific-impulse magnetoplasma rocket engine for propulsion, waste processing, and plasma production
Alcon Laboratories, Fort Worth	Transferred satellite tracking technology to laser radar eye-tracking devices for use in LASIK vision correction surgery
Astro Technology, Houston	Modified fiber-optic sensor system (FOSS) used in NASA robotics for monitoring and determining fatigue and service life of sub-sea pipelines
CardioSoft®, Houston	Licensed high-frequency QRS electrocardiogram systems and other technologies for human and animal medical applications
Invocon, Conroe	Developed MicroWIS-XG, which can be used for sensing environmental, temperature, strain, and pressure parameters for such applications as monitoring external grout pressure during the building of tunnels
MicroMed Cardiovascular, Houston	Developed DeBakey VAD®, an implantable ventricular assist device for patients who suffer from congestive heart failure
Mission Technologies, San Antonio	Licensed a portable catapult launcher for small unmanned aerial vehicles (UAVs) used in remote sensing, communications relay, and other applications
Regenetech®, Houston	Utilizing NASA bioreactor technology for growth of human progenitor cells
Synthecon, Houston	Licensed low-cost, easy-to-use rotary cell culture microgravity bioreactors
Tietronix Software, Houston	Introduced TieFlow, a business process improvement tool that can automate and simplify any generic or industry-specific work process
Tyrell, Houston	Leveraged NASA engineering support to redesign a heating element for a hand-held acne-fighting device
Zyvex Corp., Richardson	Developed NanoSolve solubilized carbon nanotubes, which have been incorporated into bicycle parts and other sporting goods from Easton Sports

Partnerships

Forming partnerships that add value to NASA is essential for the success of the space program. These alliances allow NASA to achieve its space exploration, science, and other mission ambitions faster. Furthermore, by combining our resources with those of our partners, we can more efficiently realize our own goals as well as those of our partners. The following lists just a few of the Texas organizations that have recently partnered with Johnson Space Center.

Organization	Partnership focus
Ad Astra Rocket Co., Houston	Alternative rocket propulsion technology
Bay Area Houston Economic Partnership, Bay Area Houston	Cooperative community outreach activities
Bigelow Aerospace, Houston	Developing inflatable spacecraft
BioDri, Houston	Testing of antimicrobial fabric
Houston Dynamo, Houston	Sports and Exploration Education Partnership
Houston Technology Center, Houston	Technology transfer/commercialization workshop and other collaboration activities
Nine independent school districts, Houston	HUNCH Program (High school students United with NASA to Create Hardware)
Science Applications International Corp., Waco	T-38 Trim Autopilot Development and Testing
Southwest Research Institute, San Antonio	CO_2 compressor risk mitigation testing
Spacehab, Webster	Testing of a miniature mass spectrometer
Texas Children's Hospital, Houston	Studying the effects of vibrations during transport of infants in neonatal incubators
University of Houston	Cooperative development of counter-terrorism solutions and security enhancements
University of Texas at Austin	Nano-electronic research and development
University of Texas Medical Branch, Galveston	Vestibular function in clinical/astronaut populations

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