



NASA's Impact in Louisiana: A Tech Transfer Perspective

You know that NASA studies our planet, our sun, the solar system, and the Universe.
But did you know about the space program's economic impact here on Earth?



In 2011, NASA invested over **\$108 million** in the state of Louisiana.

Since 2001, NASA's SBIR/STTR Program has invested nearly
\$600,000 in **5 Louisiana companies**
and more than **\$1.2 billion** nationwide.

How NASA's SBIR/STTR Program Benefits Louisiana

NASA is committed to moving technologies and innovations into the mainstream of the U.S. economy, and the Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) program helps fulfill this goal.

SBIR/STTR stimulates technological innovation by encouraging small, high-tech companies—particularly minority and disadvantaged businesses—to partner with NASA to help meet its research and development needs in key technology areas. At the same time, this program strengthens small companies by enabling them to bring cutting-edge new products into the U.S. economy.

The list to the right highlights Louisiana businesses that received SBIR/STTR contracts from NASA since 2001. (Visit <http://sbir.nasa.gov> for more information on the SBIR/STTR program.)

NASA SBIR/STTR Companies in Louisiana

Diamond Data Systems.....	New Orleans
DQSI, LLC	Covington
Geocent, LLC.....	Metairie
Mezzo Technologies.....	Baton Rouge
Omni Technologies, Inc.....	Slidell



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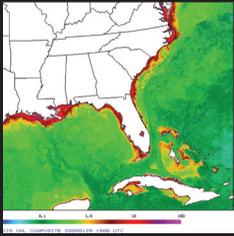


How NASA Spinoffs Benefit Louisiana



Award-Winning NASA Technology Decontaminates Polluted Soil and Groundwater (Baton Rouge)

A NASA-developed groundwater remediation compound designed to neutralize toxic chemicals in the soil near rocket launching facilities is cleaning up polluted areas around the world. Emulsified zero-valent iron (EZVI) deactivates contaminants with nano-sized iron particles in an environmentally friendly water and biodegradable oil emulsification. EZVI is one of NASA's most frequently licensed technologies and was awarded a place in the Space Technology Hall of Fame. Licensees are using NASA's EZVI to detect and remediate abandoned hazardous waste sites and to clean contaminants (e.g., dyes, chemicals, aerosols, and paints) from groundwater. Toxicological and Environmental Associates, Inc. is utilizing the compound for environmental cleanup at several government and industrial sites throughout the United States and Canada.



Forecasting Tools Provide Storm Surge Predictions, Weather Models, Fishing Hotspots (Slidell)

Thanks to a commercial partnership, oceanic data gathered by NASA satellites is now helping take the guesswork out of finding fishing hotspots. NASA established the Short-term Prediction Research and Transition Center (SPoRT) to use real-time satellite data and measurements for weather forecasting. Private weather forecaster WorldWinds, Inc. entered into a cooperative agreement with NASA to use SPoRT ocean data to increase the accuracy of storm surge flood forecasts and weather predictions. The company went on to develop a fisherman's dream: a method of forecasting favorable conditions for certain fish populations. The technology reaches 600 miles offshore in all directions from the continental United States.



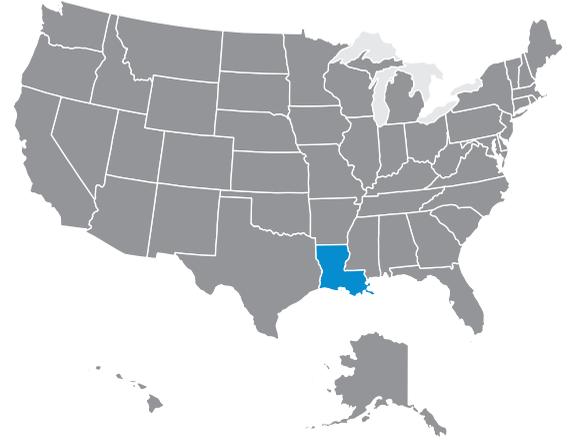
Collaboration Enables Remote Transfer of High-Speed Digital Data (Slidell)

A dual-use agreement enabled Omni Technologies, Inc. to develop a redundant fiber-optic transceiver for the remote transfer of high-speed digital data. The device uses laser diode transmitter modules and integrated receivers for its optical interface. The transceiver's link can be as long as 25 kilometers, much longer than the standard coaxial link, which is limited to 50 meters. NASA uses the technology to collect accurate data from rocket engine tests. Omni markets the device to facilities that perform hazardous testing, including work with explosives, nuclear materials, rocket engines, and combustion turbine engines.



Space Technology Lowers Costs, Reduces Manufacturing Time for Prosthetic Industry (New Orleans)

Technology derived from the foam insulation system that protected the space shuttle's external tank from excessive heat helped replace the plaster material formerly used to produce molds for prosthetic devices. Martin Marietta Manned Space Systems, now Lockheed Martin, Inc., worked with NASA and the prosthetic industry to develop and test the new material. While the plaster molds were heavy, fragile, and difficult to ship and store, the NASA foam was lighter, less expensive, and faster to manufacture. With NASA's assistance, the company was able to lower the cost and time of manufacturing and mass produce the foam for distribution to prosthetists across the country.



NASA actively seeks partnerships with U.S. companies that can license NASA innovations and create "spinoffs" in areas such as health and medicine, consumer goods, transportation, renewable energy, and manufacturing. When businesses leverage NASA technologies to develop new products, it not only benefits the regional economy, but significantly strengthens the nation's competitiveness in the global marketplace.

NASA's centers across the country have helped 25 Louisiana companies develop revolutionary spinoff technologies.

Learn more about how NASA innovations benefit the public in *Spinoff*, an annual publication that highlights NASA's most significant technology transfer successes. (Available at: <http://www.sti.nasa.gov/tto>)

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