National Aeronautics and Space Administration

NASA's Impact in Maine: 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 nearly **$3 million** in the state of Maine.

Since 2001, NASA's SBIR/STTR Program has invested over **$2 million** in **Maine** and more than **$1.2 billion** nationwide.

How NASA's SBIR/STTR Program Benefits Maine

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 a Maine business that received an SBIR/STTR contract from NASA. **(Visit http://sbir.nasa.gov for more information on the SBIR/STTR program.)**

NASA SBIR/STTR Company in Maine

Fiber Materials, Inc. ..... Biddeford

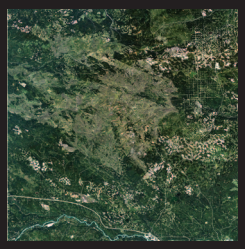
maine

www.nasa.gov

How NASA Spinoffs Benefit Maine

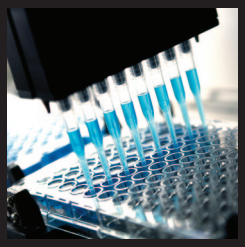
Software Improves Industrial Plant Safety *(Portland)*
NASA's revolutionary software for systems health monitoring—the Inductive Monitoring System (IMS)—is enabling a Portland company to improve monitoring and diagnostics for industrial plants. NASA uses IMS to conduct critical, real-time health monitoring of aircraft and to detect anomalies in International Space Station systems. iSagacity, an engineering and software company, adapted IMS to provide comprehensive early warning and diagnostics software for equipment used in the power generation and water treatment industries.

IMS uses model-based reasoning, machine learning, and data mining to alert users to anomalies in real time. iSagacity's software identifies potential problems in almost any type of process before the equipment fails. Since the problem in many industries has not been a lack of sensor data, but the ability to make sense of voluminous data fast enough to prevent equipment failures, the technology offers an unprecedented breakthrough for improving industrial plant safety and efficiency.



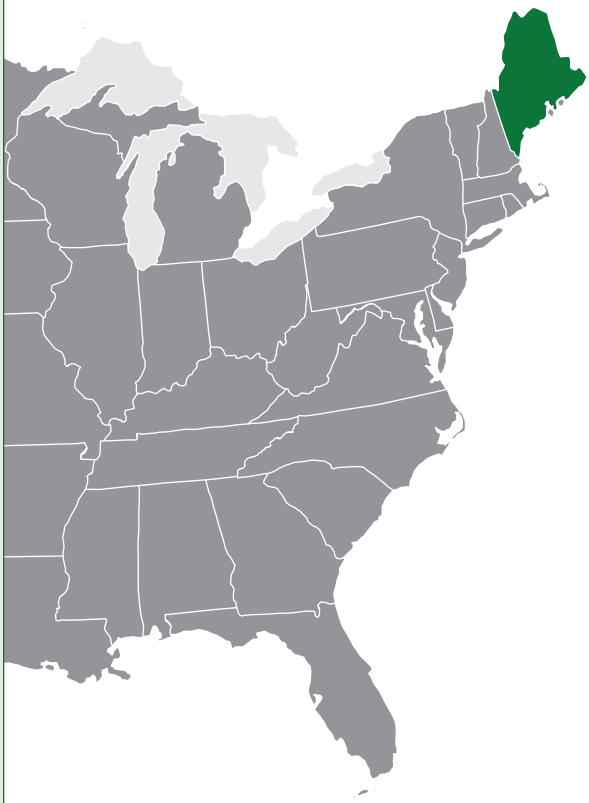
Earth Observation Helps Pipeline Companies
(Old Town)
James W. Sewall Company, a Maine company since 1880, partnered with NASA to develop a computerized system for storing and retrieving digital aerial photography of pipeline rights-of-way. Aerial photography helps pipeline companies better manage operating and regulatory pressures that require detailed mapping, inventory of facilities, pipe inspections, as well as safety and environmental reporting.

The partnership with NASA enabled Sewall to develop new products and to expand its customer base in pipeline monitoring and other markets. After undertaking the project, Sewall tripled the size of its Automated Mapping/Facilities Management (AM/FM) and Geographic Information System (GIS) division and extended its operations into the international market. The computerized system for aerial monitoring of pipelines also enabled Sewall customers to more precisely monitor operations, improve safety, and meet regulatory requirements.



NASA Helps Spark Biotechnology Wave in Maine
(Portland)
In the mid-1960s, NASA joined forces with the University of Connecticut to create the New England Research Application Center (Nerac), a research and advisory firm for companies developing innovative products and technologies. Ventrex Laboratories, Inc., a developer and manufacturer of medical diagnostic assays, relied on Nerac's research to stay current on innovative test methods and to develop new products.

Ventrex is often credited with starting the biotechnology wave in the state of Maine. The company was purchased by Hycor Biomedical, Inc. and relocated to the West coast, though it formed an offshoot, IDEXX Laboratories, Inc., that has helped establish Portland as a biotech cluster. IDEXX, with 4,700 employees worldwide and annual sales just over $1 billion, serves the veterinary market with diagnostic and IT-based products and services.



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 17 Maine 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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Publication herein does not constitute NASA endorsement of the product or process, nor confirmation of manufacturer's performance claims related to any particular spinoff development.

NP-2012-01-804-HQ | 01.31.12