National Aeronautics and Space Administration

NASA's Impact in Wyoming: 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 **$2 million** in the state of Wyoming.
Since 2001, NASA's SBIR/STTR Program has invested **$2.5 million** in **5 Wyoming companies** and more than **$1.2 billion** nationwide.

How NASA's SBIR/STTR Program Benefits Wyoming

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 below highlights Wyoming 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 Wyoming

Big Horn Valve, Inc. .....Sheridan
Firehole Technologies, Inc. .....Laramie
Scientific Simulations, LLC .....Laramie
Wickman Spacecraft & Propulsion Company.....Casper
Wyoming Silicon, LLC .....Sheridan

Featured Spinoff to Wyoming Company

Innovative Stemless Valve Eliminates Harmful Emissions *(Sheridan)*
Through SBIR partnerships with NASA, Big Horn Valve, Inc. has become a world leader in stemless valves and zero emission valve technology. The Wyoming company developed a revolutionary valve to help NASA with storage and distribution of cryogenic propellants. Big Horn's innovative stemless design has zero emissions and no external leakage of vapors or fluid.

The first commercial system was installed in 2006 at Windsor Energy Inc.'s methane coal gas field, near Kaycee, Wyoming. The valves can be used in high-volume gas delivery systems, in-flight refueling of military aircraft, waste disposal, refineries, petrochemical plants, and other environmentally sensitive applications. Big Horn recently secured follow-up SBIR funding to develop a high pressure, leak-free helium valve for use in space vehicles.

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. This activity benefits the regional economy and strengthens the nation's competitiveness in the global marketplace. NASA has helped 3 Wyoming companies develop revolutionary spinoff technologies.

Learn more about how NASA innovations benefit the public in *Spinoff*, which highlights NASA's technology transfer successes. **(Available at: http://www.sti.nasa.gov/tto)**

Wyoming

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