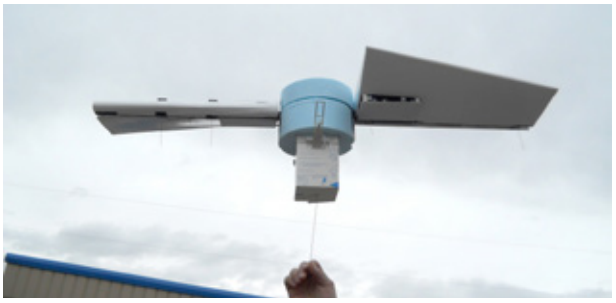
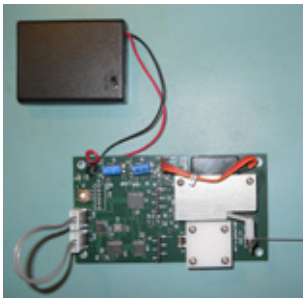
National Aeronautics and Space Administration

SBIR CASE**STUDY** MONTANA









With funds from NASA's SBIR program, Anasphere developed a sensor (bottom right) that has been used by the agency and sold worldwide. The company participated in technology working groups (left), deployed the innovation on research sondes (top right), and conducted economical testing of the technology (bottom left) over the course of multiple SBIR contracts with NASA. All photos courtesy of Anasphere.

NASA SBIR Fuels Cloud Instruments, Business Growth

SBIR enabled Anasphere to develop water-content sensors for clouds, which are now used by NASA, other government agencies, and commercial customers worldwide.

Anasphere, Inc.
Belgrade, Montana
anasphere.com
Founded: 2002
Staff Size: 4

Through diligent efforts to cultivate a strong relationship with NASA's SBIR program, Anasphere has developed sensors that are helping the agency address the problem of accurately identifying dangerous icing conditions in clouds. The instruments are also aiding Department of Energy (DOE)–sponsored meteorological research in Alaska, and they have been used commercially from Europe to Antarctica.

> "In working with NASA's SBIR program, we've been able to develop new products that address real technological and scientific needs for both government organizations and commercial customers—products that never would have been feasible for us to develop on our own."



—Dr. John Bognar,
Founder, Anasphere

Anasphere's SBIR contracts with NASA in 2005, 2011, and 2013 resulted in the development of a lightweight cloud water content sensor that has enabled significant business growth for the small company. Not only has the company successfully deployed the innovation in both NASA and DOE-sponsored programs, but the instruments have been sold globally and catalyzed the expansion of the company's manufacturing relationships—bringing in valuable expertise while maintaining lean operations. Its success has also led to further SBIR work with NASA, the most recent of which is supporting development of a universal cloud water content sensor that Anasphere expects will widen industry adoption of the technology even further.

Anasphere's Path to Success

- **Specific need:** Responded to a clear NASA challenge that the company had expertise in
- **Successful development:** Delivered a sensor that would address NASA's need while also being of interest to industry
- **Strategic relationships:** Connected with other small businesses to boost capabilities while keeping overhead low
- **Economical infusion:** Identified viable avenues for testing and deploying the sensor as part of a larger NASA project

Engaging with NASA

Anasphere has worked to successfully engage with NASA's SBIR program by:

- **Cultivating relationships:** Communicated with SBIR contacts at various NASA field centers, even between contracts, to sustain interest in Anasphere's technology and maintain awareness of customer needs
- **Joining working groups:** Accepted NASA invitations to meet and learn from industry leaders with applications for the company's technology
- **Maintaining interest:** Collaborated with SBIR contacts to identify NASA personnel who could include the technology in field campaign proposals

Markets for Anasphere's Technology

NASA Applications

- Remote sensing methods for cloud characterization
- Fundamental icing research

Commercial Applications

- Aircraft certification activities
- Weather monitoring for agriculture
- Icing weather-forecasting products

> "When we first got started with this effort, there were a lot of things we didn't understand perfectly. But when you look at where we are today, we've brought that full circle—we're building the instrument we envisioned 12 years ago. Our relationship with SBIR allowed us to move our insights forward and ultimately be successful."

—Dr. John Bognar, Founder, Anasphere

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NASA SBIR/STTR Program
sbir.nasa.gov

www.nasa.gov

Join the hundreds of small companies that have participated in NASA SBIR projects.

Visit *https://sbir.nasa.gov* where you can:

- Learn more about the SBIR and STTR programs and how to get started
- View the annual Solicitation to find NASA needs that match your capabilities
- Sign up for newsletters and download other resources

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