



# News

***For Immediate Release***

For more information, contact:  
Bruce G. Montgomery, President  
Bruce.Montgomery@SyntonicsCorp.com  
410.884.0500 x201

## **Syntonics Awarded DOD STTR Contract to Investigate Wireless Strain Gage System**

COLUMBIA, MD. July 29, 2005 . . . Syntonics LLC, based in Columbia, Md., announced today it has been awarded a contract to investigate the feasibility of a wireless strain gage system that can be used to test and monitor compressor blades in a jet turbine engine. Syntonics has teamed with the ElectroScience Laboratory of The Ohio State University for this work. The Air Force Office of Scientific Research is managing the nine-month project for the Air Force Research Laboratory at Wright Patterson AFB.

Strain gages are used to measure the strength of mechanical parts in a moving machine or structure. The goal of the project is to develop a self-powered strain gage that wirelessly transmits its measurements to a collection system. Current technology generally requires connecting wires to each strain gage, which can be difficult and expensive when numerous gages are used, especially on rotating machinery. Although some bulky wireless data relay devices exist, current technology is entirely unsuited for fast rotating machinery like a turbine engine. The Phase I STTR (small business technology transfer) project is investigating a system design that combines microwave techniques, innovative power, instrumentation and antenna designs, and existing thin-film technologies. If successful, the technology would be broadly useful for wirelessly testing and monitoring all types of rotating machinery.

"This is Syntonics' ninth 'Phase I' technology development contract under the DOD SBIR/STTR program in the past four years," said Bruce Montgomery, president, Syntonics, "and our first for the Air Force. A self-powered, thin-film wireless strain gage has significant global market potential and we are excited to start this work. Our business model of winning technology development projects that lead to commercially successful products is working: we introduced two new products this year based on earlier DOD SBIR projects."

Syntonics is a defense electronics company that produces the FORAX RF-over-fiber communication systems for military radios and develops innovative antennas for specialty military applications. For more information on Syntonics and its products, please see the company's website at [www.SyntonicsCorp.com](http://www.SyntonicsCorp.com).