

**FOR IMMEDIATE RELEASE**

**Ridgetop Group Awarded Four NASA SBIR Phase 2 Contracts, Two for Prognostics Innovation**

**TUCSON, Ariz.—July 13, 2011**

NASA has awarded Ridgetop Group, Inc., a Tucson semiconductor engineering innovation company, four U.S. Small Business Innovation Research (SBIR) contracts worth nearly \$2.4 million. Two of the contracts are in the electronic prognostics area – Embedded Data Acquisition Tools for Rotorcraft Diagnostic Sensors, and Physical Modeling for Anomaly Diagnostics and Prognostics.

For the Embedded Data Acquisition Tools for Rotorcraft Diagnostic Sensors contract, Ridgetop Group is developing an innovative embedded data acquisition module that provides improved capabilities for detecting wear in the drive gears inside helicopter gearboxes. The sensor, based on microelectromechanical systems (MEMS) technology, uses unique circuit designs to capture high-bandwidth data and transmit it wirelessly from inside an operational helicopter transmission. The improved vibration sensors will support the Subsonic Rotary Wing thrust of the NASA Fundamental Aeronautics Program, as well as NASA's health monitoring goals for future aircraft, satellites, and similar systems.

For the Physical Modeling for Anomaly Diagnostics and Prognostics contract, Ridgetop Group is developing a model-driven anomaly diagnostic and fault characterization system for electromechanical actuator (EMA) systems to mitigate catastrophic failures. EMAs are employed, for example, in moving airplane wing flaps. With this innovation, Ridgetop plans to collaborate in the NASA integrated vehicle health management (IVHM) program to aid in the detection, diagnosis and prognosis of avionics faults and malfunctions, actuator failure and damage, and avionics transient effects resulting from operation in a harsh environment (neutron particles, electromagnetic fields, lightning).

According to Sonia Vohnout, Ridgetop's Prognostics Business Development Manager, "Ridgetop Group will be applying its expertise in advanced electronic health management solutions to support NASA's rotorcraft and aviation safety programs. Once our leading-edge MEMS sensors and diagnostic/prognostic capabilities are deployed, flight safety will be improved by reducing damage propagation and increasing operational readiness and safety. We greatly appreciate NASA's endorsement as evidenced by these two contracts."

**About Ridgetop Group**

Based in Tucson, Arizona, Ridgetop Group is the world leader in providing semiconductors for harsh environments, advanced electronic prognostics and health management (PHM) solutions, and built-in self-test (BIST) solutions for critical applications. The company maintains business divisions for advanced radiation-hardened microelectronics and electronic prognostics & health management (PHM) solutions for critical electronic sensing and control applications. Founded in 2000, Ridgetop has built an impressive list of aerospace, automotive, and medical systems customers in North America, Europe, and Asia. For more information, please visit [www.RidgetopGroup.com](http://www.RidgetopGroup.com).

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