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### FOR IMMEDIATE RELEASE

# New Solution for Monitoring Performance of Gear Trains and Complex Rotary Systems

## Wireless System Ensures Rigorous Performance Monitoring for Critical Systems

## **TUCSON, Ariz. — May 20, 2013**

Ridgetop Group, Inc., a leading provider of advanced diagnostic and prognostic solutions for critical applications, announced the immediate availability of RotoSense™, a wireless sensor module capable of measuring vibration and ambient temperature on gear trains and other complex rotary systems. Applications include gear trains on helicopters, vehicles, and wind turbine systems.

RotoSense technology was developed by Ridgetop Group under a Small Business Innovation Research (SBIR) contract from NASA's Glenn Research Center to measure the vibration of pinion and planetary gears in helicopters. As implemented, the configuration detects spalling and cracks in gears, bearing degradation, and other anomalies. The sensor module can be placed physically close to or inside of the gearbox, and transmits the real-time measurements wirelessly to a collection hub where data can be processed or examined in real time, or stored for later off-board analysis.

The sensor module consists of an advanced three-axis MEMS-based sensor array with signal processing and power management sections.



High-speed pinion gear location





Low-speed planetary gear location

According to Doug Goodman, Ridgetop's CEO, "Traditional approaches for supporting condition-based maintenance (CBM) of complex, critical rotary drive trains have simply fallen short. RotoSense is new enabling technology that our engineers have designed to be easily customized for specific applications. We are gratified by the interest expressed by a diverse base of customers."

RotoSense supports gear train shaft speeds up to 6180 rpm and can be configured with Ridgetop's comprehensive Sentinel Network<sup>™</sup> software platform to provide system state-of-health (SoH) and remaining useful life (RUL). To facilitate the evaluation process, there are low-cost RotoSense development kits available, along with Application Engineering support.

#### **About Ridgetop Group, Inc.**

Ridgetop Group is a recognized leader in advanced diagnostic and prognostic systems. These systems support condition-based maintenance (CBM) and integrated vehicle health monitoring (IVHM) applications. The company offers a range of modular hardware and software components to provide advanced diagnostic and prognostic coverage for complex systems. Founded in 2000, the company is privately held and has a wide range of industrial, aerospace, and automotive customers worldwide. For more information, visit http://www.RidgetopGroup.com or contact Milena Thompson by phone at 520-742-3300 or email: <a href="mailto:MThompson@RidgetopGroup.com">MThompson@RidgetopGroup.com</a>.

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