

Wireless Enabled Integrated Vehicle Health Management



A Team lead by Oceana Sensor – Oceana Sensor, Impact Technologies, GasTOPS and The Hess PHM Group - proposes to apply advanced wireless sensors integrated with an Intelligent Component Health Monitor (ICHM®) and prognostic algorithms for enhanced aircraft health monitoring capability.

- **Demonstrate the fusion of vibration, oil debris/ condition, and temperature data**
- **Provide optimized prognostics to facilitate transition to a CBM based philosophy**

Digital wireless spread spectrum technology:

- Robust, reliable, miniature, low power, non-interfering, maintenance free, secure and affordable wireless sensors
- Wireless sensors with the integrated vehicle health monitoring system will result in greater than 30% reduction in installed system cost and 50% reduction in weight in comparison to wired systems
- Optimal sensor suite as more sensors can be used within overall cost and weight constraints

Intelligent Component Health Monitor

- Data acquisition and data manipulation
- State detection – algorithm processing, analyzed data, abnormality alerts
- Communication integration with platform health analysis, pilot advisories, maintenance advisories, data archiving, configuration

“ICHM” is an acronym for Intelligent Component Health Monitor and is a registered trademark of Oceana Sensor Technologies, Inc.