



Miniature Tactical Gyro System (MTGS)

Low Noise FOG IMU

An innovative approach that enables the production of enhanced performance smaller IMUs

We developed and implemented:

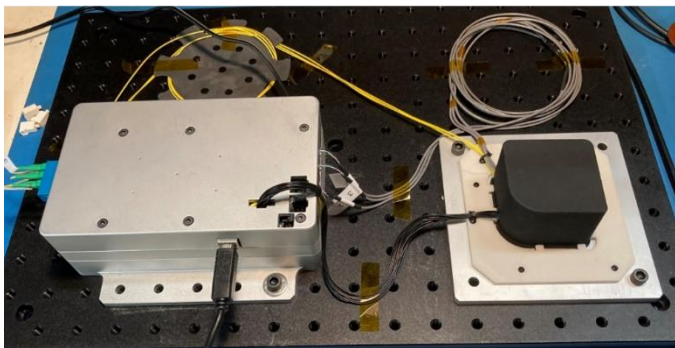
- Innovative sensor coil design that achieves a tenfold improvement of bias stability compared to existing FOG products in 3x smaller size
- Super low noise, broadband light source that enables > 4x reduction of gyro noise (ARW)

System goals demonstrated in a NASA Phase II SBIR with a tethered IMU prototype

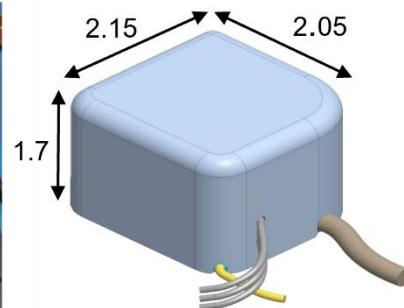
- Miniaturized < 7 in³ three axis sensor cluster (gyros, accelerometers, and its electronics)
- Bias stability (over temperature) < 0.2 deg/hr and ARW as small as 0.006 deg/ \sqrt{hr}
- Bandwidth > 5 kHz, dynamic range > 5000 deg/sec

Looking for commercial partners to mature the technology as a compact, < 15 in³ IMU

- Smaller IMU in the market with that level of performance
- May receive CCRPP matching funds of up to \$ 2.5M



Prototype tethered IMU



Inertial Sensor Assembly