



US Army Engineering & Support Center  
Huntsville, Alabama

---

## **Ordnance & Explosives Innovative Technology Program**

**PROJECT:** Inertial Navigation System Improvements for Target Characterization using Small Area Inertial Navigation Tracking (SAINT)

**TEAM MEMBER:** ENSCO Inc.

**PROJECT DESCRIPTION:** The SAINT system can effectively be used to reoccupy and interrogate a set of small (~2m x 2m) areas and quickly provide very precise 3-dimensional position data to maximize the accuracy achievable by a standard Geonics EM61-HH sensor or Geometric G-858 magnetometer. This is being accomplished using innovative analytical techniques with a tactical-grade Inertial Measurement Unit (IMU) combined with a digital magnetic compass (DMC).



**SAINT Inertial Navigation System**

**POTENTIAL TECHNOLOGY APPLICATIONS:** Prior studies have shown that detailed modeling and simulation of geophysical sensor may provide the means to characterize targets, but, such analysis will be ineffective without high-precision geopositioning data integrated with high-quality geophysical sensors.

**FUTURE WORK:** Proveout tests are anticipated in FY06 in partnership with ESTCP.

**POINTS OF CONTACT:**

ATTN: ED-SY-T

US Army Engineering & Support Center, Huntsville

PO Box 1600, Huntsville, AL 35807-4301

Phone: 256-895-1629

FAX: 256-895-1737

ENSCO Inc.

Greensboro, NC

Phone: 336-632-1200