



## ABRAMS REVERSE ENGINEERING

**TASK:** SURVICE METROLOGY was tasked by the Aberdeen Test Center (ATC) to conduct an expedited target exploitation, and reverse engineering effort to produce a high-resolution geometric CAD model of an as-built ABRAMS M1A2 tank. The intended use for the detailed CAD models is for Vulnerability & Survivability Live Fire Test & Evaluation (LFT&E), Blast Modeling Analysis & Simulation, and space claim studies for equipment integration.

**EQUIPMENT:** Surphaser, Laser Tracker and Faro Arms

**SOFTWARE:** Geomagic, PolyWorks, SolidWorks and Pro-E

**EFFORT:**

1. Turret Disassembly & Data Collection (Scanning & Probing)-6 Weeks
2. Post Processing (Data Alignment & Meshing)-2 weeks
3. CAD Geometry Development-6 Weeks

**BENEFIT:** As-Built, Fully Feature-Based, Component Level, SolidWorks CAD Model

