



MRAP COUGAR REVERSE ENGINEERING

TASK: Capability Insertion and sustainment for Mine Resistant Ambush Protected (MRAP) and other military vehicles continues to be a challenge for program offices due to a lack of available – or affordable – 3-D CAD models. SURVICE METROLOGY was tasked by the USMC, which had an urgent need/requirement to generate as-built 3-D geometric models for various MRAP vehicle variants, to help solve this problem. To date, SURVICE Metrology has provided full-vehicle, editable solid, component-level CAD models of eight MRAP vehicles: four Cougar variants, Buffalo, JERRYV, Caiman, and Bull.

EQUIPMENT: Surphaser and Faro Arms

SOFTWARE: Geomagic, PolyWorks, SolidWorks and Pro-E

EFFORT:

1. 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

