DEVCOM ARMAMENTS CENTER

TOWED ARTILLERY DIGITIZATION (TAD)

LABORATORY INFORMATION FACT SHEET

The M777A2 and Digitized M119A2 (M119A3) Software Support Environment (SSE) is a 600 square-foot facility containing the hardware and software tools required to support the Light Weight 155mm M777A2 Digital Fire Control System (DFCS) and M119A3 Digital Fire Control (DFC) operational software, which includes integration testing and software formal qualification testing.

TECHNOLOGY/FACILITY DESCRIPTION:

The M777A2 DFCS SSE consists of 3 complete DFCS test environments, 1 Level A test environment and 6 DFCS surrogates where each environment can support testing individually or combined together as a 9-gun firing unit configuration to perform multi-gun testing. Additionally, Gun 1008, equipped with the DFCS, can be added as an additional station by relocating the tethered Chief of Section Display into the lab. Similarly, the M119A3 DFC SSE consists of 3 complete DFC test environments, 1 Level A test environment and 6 DFC surrogates where each environment can support testing individually or combined together as a 9-gun firing unit configuration to perform multi-gun testing. Additionally, Gun 500, equipped with the DFC, can be added as an additional station by relocating the tethered Fire Control Computer into the lab. The TAD SSE is also equipped with outdoor radio antennas mounted on the building's rooftop that facilitate communicating with the M777A2 and M119A3 throughout the arsenal area to support navigation testing. A rooftop mounted GPS antenna provides GPS signal that is networked and re-radiated throughout the laboratory, thus eliminating multiple GPS antennas and providing GPS signal in the laboratories and high bay area. Uninterruptible Power Supplies (UPS) are connected to over 12 PC based pieces of test equipment in the test environment. The UPS conditions power and prevents the potential loss of data during testing.

EQUIPMENT AND EXPERTISE AVAILABLE:

- Hardware and software tools required to support the Light Weight 155mm M777A2 Digital Fire Control System (DFCS), M119A3 Digital Fire Control (DFC) operational software, outdoor radio antennas, rooftop mounted GPS antenna and uninterruptible Power Supplies (UPS)

- Software Integration, Interoperability test, Formal Qualification Test of M777A2 Digital Fire Control System (DFCS), and M119A3 Digital Fire Control (DFC)
- Software Integration
- Testing

- SW & HW Defect Analysis
- Formal Qualification Test