



MORTAR FIRE CONTROL SYSTEMS INTEGRATION LABORATORY (SIL)

LABORATORY INFORMATION FACT SHEET

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The Mortar Fire Control System Integration Lab tests Fire Control Software and Fires System Interoperability. It is a 2478 square-foot Software Support Environment (SSE), which is located in the Armament Software Engineering Center.

TECHNOLOGY/FACILITY DESCRIPTION:

The Lab contains target fielded hardware and software tools required to support all Mortar Fire Control Programs, such as the Mortar Fire Control System - Mounted (MFCS-M),

Mortar Fire Control Systems - Dismounted (MFCS-D), Lightweight Handheld Mortar Ballistic Computer (LHMB) and Accelerated Precision Mortar Initiative (APMI). In addition, other non-mortar programs such as the Enhanced Portable Inductive Artillery Fuze Setter (EPIAFS) utilize the SIL for development and testing purposes. A typical test consists of integration testing for operational software and hardware, as well as software Formal Qualification Testing (FQT). The MFC SIL test area consists of multiple test station environments, where each environment supports testing as an individual weapon system, mortar platoon, etc., including associated Fire Support Network assets with a Fire Direction Center (FDC), FBCB2, FOS, AFATDS, for each of the supported programs. Multiple gun configurations may be constructed to perform multiple-gun testing. The Lab also consists of post-fielding stations and hardware staging and kitting area for system fielding such as what is performed for LHMB.



EQUIPMENT AND EXPERTISE AVAILABLE:

- Outdoor radio antennas mounted on the building's rooftop, which facilitates communicating with associated weapon system platforms throughout the Arsenal area to support navigation and other testing
- A rooftop mounted GPS antenna provides GPS signal that is networked and re-radiated through out the laboratory, eliminating multiple GPS antennas and providing GPS signal in the laboratories and highbay area
- Functioning (non-firing) representation of fielded Mortar and Artillery platforms
- Interoperability testing of Fire Control and Command and Control equipment
- Suite of next generation Ethernet/ Soldier Radio Waveform (SRW) Radios