



# PALADIN SOFTWARE SUPPORT LABORATORY

## LABORATORY INFORMATION FACT SHEET

### CONTACT US:

Technology Transfer Office

Email: [usarmy.pica.devcom-ac.mbx.t2@army.mil](mailto:usarmy.pica.devcom-ac.mbx.t2@army.mil)

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*The Paladin Software Support Environment (SSE) is a 2,241 square-foot facility containing the hardware and software tools required to support the Paladin Digital Fire Control System (PDFCS) operational software, which includes software engineering, integration and software qualification testing.*

### TECHNOLOGY/FACILITY DESCRIPTION:

The Paladin SSE consists of 16 complete Paladin test environments, where each environment can support testing individually or

combined together as an 8 gun battery/19 gun battalion configuration to perform multi-gun testing. Additionally, the Paladin SSE contains 18 of the PDFCS PC-Trainers. The SSE incorporates the tactical command, control and communications systems, e.g., Advanced Field Artillery Tactical Data System (AFATDS), CENTAUR and Forward Observer System (FOS) to replicate field communications and operations, as well as emulations for the inertial and servo systems to provide realistic representations of the entire weapon. The Paladin SSE is also equipped with outdoor radio antennas mounted on the building's rooftop which are capable of communicating with the Paladin howitzer throughout the arsenal area and supports the actual vehicle movement testing. An outside GPS antenna is used and the signal is re-radiated throughout the laboratory, thus eliminating multiple GPS antennas and providing GPS signal in the laboratories and highbay area. Uninterruptible Power Supplies (UPS) are connected to over 70 PC based pieces of test equipment in the test environment to prevent power glitches from affecting lab equipment and the potential loss of data during testing.



### EQUIPMENT AND EXPERTISE AVAILABLE:

- Hardware and software tools required to support the Paladin Automatic Fire Control System (AFCS) operational software, outdoor radio antennas, outside GPS antenna and Uninterruptible Power Supplies (UPS)
- Software Integration & Interoperability Testing
- Formal Qualification Testing
- Hardware Testing
- OS Creation, Maintenance & Hardening
- Research & Development
- Systems Integration Testing
- Formal Qualification Testing
- HW Prototype Testing
- HW Defect Analysis
- Software Defect Analysis