

ACM Systems

Response to Item 4

This application requests the grant of a new experimental authorization to enable ACM Systems to engage in experiments to test new and developing technologies to fulfill the requirements of a government contract with the United States Army. Depending on the experiment in question, the tests will be conducted at six locations, using resources from those locations in California.

Specific components of the testing are expected to include procedures to:

- 1) Evaluate the performance of cellular/802.16 systems for configured services in line-of-sight and non-line-of-sight environments and seamless mobility.
- 2) Correlate the actual performance of various systems with predictive software-based algorithms.
- 3) Assess the effectiveness of various technologies and designs in providing high speed data, Internet access, and voice services to typical customer locations.
- 4) Evaluate the installation, provisioning, monitoring, and maintenance of systems tested.

ACM Systems has been awarded a contract, number N61339-00-D-0707 , Delivery order 0017, to provide a mobile communications infrastructure for the U. S. Army Program Executive Office, Simulation, Training, and Instrumentation (PEO STRI) Combat Training Center Objective Instrumentation System (CTC OIS).

The objective of the CTC OIS Program is to design, develop and field a “World-Class” instrumentation system for the National Training Center at Fort Irwin, California, and the Joint Readiness Training Center at Fort Polk, Louisiana.

The CTC mission is to provide advanced collective force-on-force and live fire training in realistic battlefield conditions. The CTC OIS provides near-real combat learning experiences for the units undergoing training. The CTC Training System collects player information on war-fighting performance, and then provides detailed and tailored After Action Review (AAR) to the units. The units participate in the AAR for self-discovery of doctrinal application, battle-focused skill efficiency and effectiveness, and tactics, techniques, and procedures proficiency.

To facilitate the AAR process, the CTCs currently have Instrumentation Systems (IS) that provide the ability to track player units in the battle-space, collect player performance data, and provide platoon through brigade echelon specific and Battlefield Operating Systems (BOS) specific AARs.

The CTC OIS will be a complete modernization of the current IS. The CTC OIS will leverage advanced technology and a modular, component based architecture to meet the U.S. Army's existing and future advanced collective training objectives as follows:

- Support all critical warfighting capabilities of all warfighting systems allowing tactical engagement simulations throughout.
- Synergistic management of a unit rotational training event that includes all pre-rotation, rotation, and post-rotation unit training tasks, enhanced training command and control, expanded player visibility, and objective feedback for AARs.
- Comprehensive linkages to digital Command, Control, Communication, Computers, Intelligence Surveillance, and Reconnaissance (C4ISR) systems allowing for portrayal of the full spectrum of C4ISR operations in the live environment.
- Robust and expanded linkages to constructive and virtual simulations to enhance the training experience.
- Advanced wireless and wired communications networks that provide reliable, effective data collection and efficient use of the electromagnetic spectrum.
- Well-defined interface allowing for increased flexibility, scalability, and interoperability with other services and instrumentation devices.