



UNITED STATES ARMY
SPACE AND MISSILE
DEFENSE COMMAND

Future Warfare Center

Future Operational Capability (FOC) Testbed Program



Summary

Recent FOC Testbed Technologies Usage

Participation in:

- Operation Noble Eagle/Clear Skies
- Operation Iraqi Freedom
- Operation Enduring Freedom

Supporting Operations for:

- Army Air and Missile Defense Command (AAMDC)
- Naval Special Warfare Group
- U.S. Marine Expeditionary Force
- U.S. Air Force Operations Center

The FOC Testbed Program is a hardware and software technology testbed that allows the U.S. Army Space and Missile Defense Command (SMDC) to demonstrate emerging technologies and concepts in a warfighter context to support systems requirements definition, for both system developers and industry

In its current form, the FOC Testbed permits warfighters to conduct exercises, experiments and combat operations with an enhanced decision-making capability using a significantly reduced footprint. The FOC Testbed is a rapidly deployable testbed, which supports emerging Army and Joint doctrine, requirements and concepts through:

- Improved streamlined decision-making exploiting superior situational awareness, presentation capabilities and automated decision aides.
- Leveraging emerging commercial off the shelf (COTS) and government off the shelf (GOTS) information technology products to reduce the logistics trail and reduce development timelines.
- Integrated Force and Engagement Operations
- Enabled network centric warfare concepts such as sensor-to-shooter networking to reduce kill-chain timelines

Secure the High Ground

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Leading the Way to Transformation

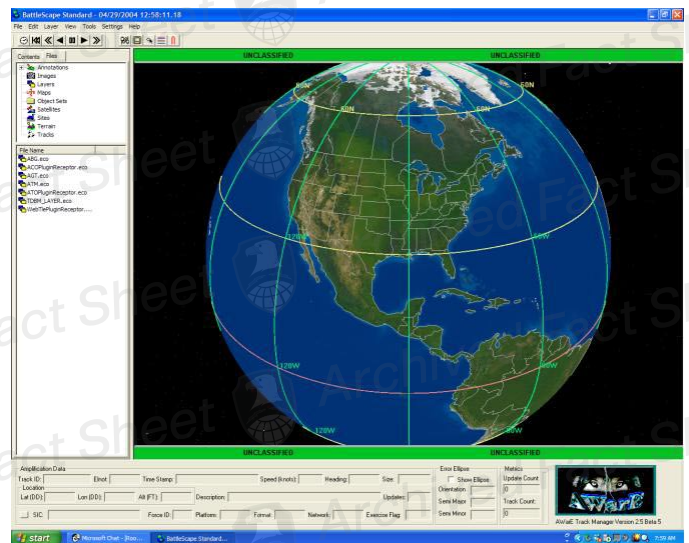
The U.S. Army's Space and Missile Defense Future Warfare Center has a remarkable track record for bringing innovative command and control technologies to support the modern joint warfighter. An example of this is the FOC Testbed program. The program started in early FY 1999 with guidance and requirements from the Army, other services, civil agencies, and allied organizations. The system integrator for the FOC Testbed program is the Future Warfare Center with a supporting Integrated Product Team (IPT) and multiple vendors.

FOC Testbed Hardware Description

The hardware portion consists of the FOC Testbed display hardware, portable computers, communications equipment, and vehicles. The current configuration consists of two high mobility multi-purpose wheeled vehicles (HMMWVs) with a modular command post, consisting of climate controlled dome tents and Battle Studios, and one support HMMWV. The operational HMMWVs house all the communications equipment, servers, and network devices. The Battle Studio provides effective presentation of all information to the commander. All workstations use commercial and government off-the-shelf products to include the Battle Lab's Advanced Warfare Environment (AWarE™). The FOC Testbed supports both battle management and operation centers support systems experimentation.

FOC Testbed Software Description

A cornerstone of the FOC Testbed is the Battle Lab's AWarE software (available on request) that provides a Network-Centric, Global Information Grid enabled command and control, communications, computers, and intelligence (C4I) publish and subscribe environment across multiple users and multiple developers. AWarE is a software platform that combines a robust set of tactical message parsers, sophisticated track management processes, and various 2-D / 3-D presentation layers that enable the warfighter to perform multiple C4I functions on a single computer. All computers share the same tactical feeds and information thus improving the decision-making process and computer usage. AWarE enables collaborative mission planning and provides an unprecedented 3-D view of the battle space using the BattleScape and BattleVision™ layers. AWarE integrates high-resolution imagery, maps, elevation data, and terrain delimitation for input into C4I tools to accomplish the Theater Air and Missile Defense (TAMD) mission.



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