

DEVELOPING SIMULATIONS FOR WARGAMES

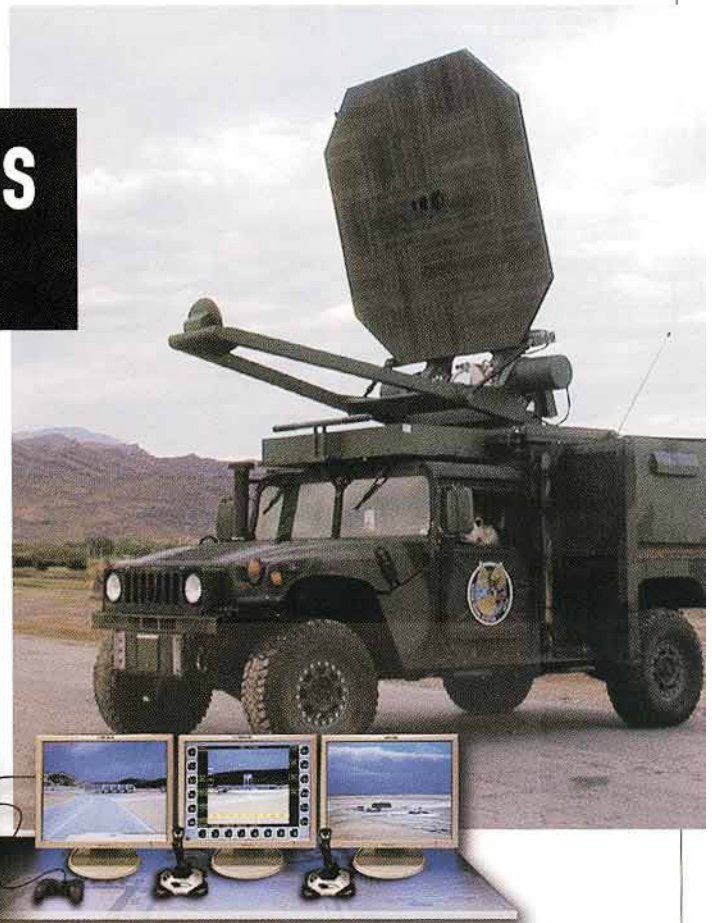
AEGIS TECHNOLOGIES GROUP WORKS WITH DEFENSE CONTRACTORS, AS WELL AS GOVERNMENT PROJECT OFFICES, TO HELP CREATE WEAPON SIMULATORS FOR MILITARY TRAINING EXERCISES.

Directed energy systems – high-energy lasers and high-power microwaves – are indeed weapons of the not-so-distant future, and the AEGIS Technologies Group is deeply involved in the development of many of the major directed energy programs within the Department of Defense. In the high-energy laser arena, AEGIS' focus has been on building human-in-the-loop simulators for the development of concepts of operations and integration of directed energy weapons into wargames.

Over the past two years, AEGIS has worked with various major defense contractors – Northrop Grumman and Boeing – and government project offices to create simulators for the C-130-based Advanced Tactical Laser, an aerostat or Predator-based Tactical Relay Mirror System, and a ground-based Solid State Laser System. These weapon simulators have been employed for the past three years in Air Force sponsored Advanced Concepts Exercises out of Albuquerque, N.M. and during 2006 in Joint Forces Command's Urban Resolve 2015 experiment out of Suffolk, Va.

Urban Resolve 2015 took place in a large city and demonstrated future capabilities and organizational constructs. The scenario was robust with over 200,000 simulation entities representing the local population, host country government and military forces, hidden insurgents and American military forces. An official Air Force after action report indicated their satisfaction with AEGIS' efforts and recommended, "...that directed energy weapon capabilities be thoroughly integrated in all future military wargaming scenarios."

In addition to developing laser weapon simulators for wargames, AEGIS has developed a training simulator for the Active Denial System for ARFL Air Force Research Laboratory. The



Active Denial System is "a counter-personnel, non-lethal, directed energy weapon...[that] projects a focused beam of millimeter waves to induce an intolerable heating sensation on an adversary's skin, repelling the individual without causing injury." To support the Active Denial System Advanced Concept Technology Demonstration (ACTD), AEGIS developed a three-station simulator (gunner, driver and team leader, NCOIC) that was used to train all operators prior to the ACTD military utility assessments in 2005 and 2006. In 2006, AEGIS supplied a rugged version of the simulator that has been deployed with the ADS technology demonstrator to the 820th Security Forces Group at Moody Air Force Base, Ga. to support an extended user evaluation. AEGIS Technologies was a key element of the ACTD team that was awarded the ACTD Team of the Year in 2005 by Sue Payton, the then Deputy Under Secretary of Defense, Advanced Systems and Concepts.

AEGIS is a principal member of the Airborne Laser System Program Office Advisory and Assistance Support team led by Northrop Grumman. Within the Airborne Laser Office, AEGIS leads the modeling and simulation efforts of the Performance and Assessment Branch, and is responsible for coordinating efforts on system and subsystem simulations, performance analysis and wargaming of the Airborne Laser. AEGIS also acts as the accreditation agent for the program director, and as such, is responsible for developing all accreditation documents for airborne laser representations in simulations throughout the Department of Defense. For more information regarding AEGIS, please visit its website at www.aegistg.com.