

## Experimentation and the Marine Corps Warfighting Lab

The Marine Corps Warfighting Laboratory (MCWL) was established in October 1995 as an engine for change within the Marine Corps Expeditionary Force Development Process. The Lab conducts concept-based experimentation to develop and evaluate tactics, techniques, procedures, and technologies to give Marines enhanced warfighting capabilities. These technologies and TTPs are field tested in concept-based experiments conducted with the operating forces.

During its first six years, the Lab focused its efforts on supporting the "Warrior" series of experiments. The Lab has now adopted a modified experimentation cycle built around the joint two-year cycle of major experiments. Millennium Dragon 2002 (MD 02) was the Lab's contribution to the Joint Forces Command's Millennium Challenge 2002

experiment. MD 02 was conducted at MCB Camp Pendleton and at the former George AFB, Victorville, CA. MCWL conducted three experiments during the I MEF ship-to-objective maneuver, then executed seven days of limited-objective experiments, and finally conducted a 96-hour urban combined-arms experiment. Experimentation focused on urban reconnaissance, surveillance and target acquisition; emerging command, control and communication capabilities; a lighter and more robust surgical care facility collocated with the battalion aid station; and an infantryman combat identification system.

During FY 2003, the Lab is preparing to participate in the Joint Forces Command's next two-year major experiment called Olympic Dragon 2004 (OD 04). This



experiment is a step in transforming the 1996 ship-to-objective-maneuver concept – a key naval transformational capability – into an operational reality. The focus of OD 04 is “on-the-move/over-the-horizon” command and control, with particular attention to the MAGTF’s Command, Ground Combat, and Combat Service Support Elements. This experiment will examine the implications of over-the-horizon communications, the common tactical picture, collaborative planning, and reconnaissance, surveillance, and target acquisition in a STOM context. In addition to STOM capability transition, OD 04 also seeks to eliminate the “digital divide” currently experienced by Marine Corps tactical units.

The Lab is conducting other limited technical and operational experimentation in several functional areas, including combat engineering, mine countermeasures, tactical unmanned air and ground vehicles, precision target acquisition, urban reconnaissance, and the impact of new technologies on infantry organizations, tactics, and future capabilities. It also is coordinating Marine Corps specific experimentation with the Navy’s Sea Trial program, with the goal of the future transformation of naval capabilities.

In addition to its experimentation role, the Lab conducts future concept exploration and assessment of new threats and opportunities through its Wargaming Division and the Center for Emerging Threats and Opportunities (CETO) in partnership with the Potomac Institute for Policy Studies. During 2002, the Lab employed both wargaming and CETO’s capabilities to identify ways to better support Marine Corps operating forces and the Expeditionary Force Development Process to respond to the threat of terrorism, the homeland security mission, and changes in the international security environment.