

Marine Corps Spectrum Integration Laboratory (MCSIL)

Mission. The MCSIL is instrumental in the development, integration, evaluation, and test of the network-centric Electronic Attack (EA) System of Systems (SoS) supporting the Combatant Command, Office of the Secretary of Defense (OSD), and the Joint Forces addressing air, ground, and surface EA for manned and unmanned systems. It is under the cognizance of the Joint Electronic Attack and Compatibility Office (JEACO).

Unique Features. MCSIL allows for the consolidation of multiple programs. This includes, but is not limited to, battle field management (BFM), Intrepid Tiger II (IT2) laboratory functions, and the unmanned aerial vehicle electronic warfare integration (UAV EWI) laboratory functions. Consolidation allows software and hardware development, production, quality assurance, and RDT&E to efficiently interact within the same facility. This enables a rapid capability to meet the on-demand needs of the Warfighter.



Combat Support. Operation Enduring Freedom: early operational capability deployment in third quarter of FY12. IT II has been supporting combat operations in the Regional Command Southwest. The JEACO team has provided Operation Enduring Freedom field service representation (FSR) support on a continuous basis. That support has either been in person (deployed) and/or via the electronic warfare helpdesk, which provides around-the-clock support. As a result of success in Operation Enduring Freedom, the IT II pods and FSR support have deployed at sea in the CENTCOM area of responsibility with Marine Expeditionary Units (MEUs).

RDT&E. MCSIL is developing the IT2 family (AN/ALQ-231[V]1, [V]2, etc.) in support of the U.S. Marine Corps Air Ground Task Force Electronic Warfare (MAGTF EW) vision. The AN/ALQ-231(V) is the first weapon system to include the EW Services Architecture (EWSA) capability. This allows the weapon to not only be controlled from within the host platform's cockpit, but also via a tactical secure radio network. This allows for the weapon to be hosted on nontraditional EW platforms while not requiring additional training or workload on the part of the platform aircrew. IT II will be the first deployable hardware in support of the MAGTF EW 2020 vision of a distributed networked approach that is designed to meet Warfighter demand for EA with both capability and capacity.

Size / Scope. Includes 12,500 SF at Point Mugu. Plant Value: \$2.7M+.

Equipment / Instrumentation

- Private cloud architecture
- Extensible and scalable software architecture and hardware infrastructure
- Tactical environment simulation providing real-world operational scenarios
- · Communications simulation providing realistic electromagnetic and network environments
- Hardware-in-the-Loop capabilities for integrating avionics, communications, and navigation components
- 3D graphics on large screens for visualizing the simulated environment and for supporting simulated demonstrations and exercises
- Access to wide area DoD interoperability and test networks

