



The Electronic Warfare (EW) Test Capabilities of *Spiral Technology, Inc.*



Spiral Technology, Inc. has an extensive background in practical EW and related ground and flight test engineering. The Spiral Technology engineering team leads the 412th Test Wing's EW and Range Group in the daily performance of operation and maintenance of EW-specific test facilities and equipment, and direct support to avionics / sensor ground and flight test programs. Our combined experience, education and training include an expertise spanning industrial, commercial, and military applications from design inception to implementation. Utilizing the classical "Spiral" Systems Engineering methodology, our program managers, scientists, engineers, and technicians are experienced in virtually all aspects of test mission requirements in support of:

- Electronic Warfare systems testing and Mission Planning
- Open Air Range (OAR) correlation and threat systems simulation and stimulation
- Uninstalled and Installed antenna pattern testing
- Electro-optical and Infrared systems testing
- Local Edwards Range Frequency Management and De-Conflict
- Radio Frequency Monitoring for ground and flight tests
- Operate and evaluate EW/Avionics systems in strategic and cargo-sized aircraft and single/multiple tactical-sized air/space vehicles
- Operate and maintain systems used to conduct constructive and virtual simulations in support of electronic warfare on-board performance evaluations
- Circuit Board Design and Layout in Support of Special Instrumentation
- RF Antenna Design and Pattern Measurements
- Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) Evaluation
- Possess skills, training, and equipment to ensure all emissions can be correlated with those observed on open air ranges
- Maintain formal links with outside intelligence activities
- Develop and maintain Signals Library of OAR emissions
- Ground-Based and Mobile Radio Frequency Monitoring System (RFMS) passive collection system in support of Electronic Warfare (EW) and Avionics testing



Along with our continuing support to test and evaluation of newly developed multi-service and foreign sensors/weapon systems, we have applied our extensive expertise to a wide variety of federal agency research projects and commercial product development including:



- C-130J EMI & MC-130E PLAID EW
- HYPER-X & GR-1 TRIAL SMASH Antenna Patterns
- AV-8 EW
- F-14 RFC Compatibility
- F-16 Antenna Patterns & Harm Targeting System
- AH-64D APACHE LONGBOW III
- CV-22 Antenna Pattern/EW/CNI



- B-1B Defensive System Upgrade Program
- Bavarian Motor Works (BMW) New Automobile EMI/EMC Measurements (European Standards)
- F-22A Electromagnetic Environmental Effects (EEE) Measurements
- RQ-4 Global Hawk High Frequency SatComm EMI Mitigation & Multi-National Sensor Ground Test
- RQ-1 Predator EMI Evaluations

Spiral's dedicated staff of engineers represents a unique cadre of sensor system expertise who believe in and implement our corporate motto of **"Leadership, Performance, Results"** and are experienced in applying these skills to a wide variety of Electronic Warfare testing environments.

Spiral Technology

www.spiraltechinc.com