The Enhanced Common Optical Emitter Test System (ECOETS) is a compact electronic warfare ultra-violet, infrared (IR) laser and realistic laser simulation electrooptical test unit. The system incorporates adaptable software to provide testing not accomplished during system built-in-test. Testable areas include: detector sensitivity, laser warning, false-alarms and advanced multi-quadrant testing. The enhancement to the COETS adds a realistic IR Laser simulation to Missile Warner systems for detection of Laser Range Finder, Laser Designator and Beam Rider threats. The heart of the COETS is the sensor coupler, which offers unparalleled on-weapon system testing flexibility. The COETS coupler can be mounted onto the sensor for comprehensive testing, or can be hand-held for walk-around go/no-go testing.

COETS offers repeatable on-aircraft alignment of the coupler to the sensors and provides a consistent light-tight testing environment to establish baseline system performance and measure sensor degradation over time. Testing is accomplished using the optical emitter coupler and a rugged laptop, or in a stand-alone capacity using embedded test software. The test results can be recorded and tracked by sensor serial number for each aircraft. Mounting adapters allow the COETS to be used on any UV-based missile warning system installation, providing precise coupler positioning, weight support and a light-tight environment.
ENHANCED COMMON OPTICAL Emitter Test System

HIGHLIGHTS

- System performance and baseline
- Sensor degradation measurement
- Aircraft wiring and connector integrity check
- Simulated missile and laser signature
- Advanced multi-quadrant testing

A selectable go/no-go mode allows the maintainer to perform a walk-around test for functionality or preflight confidence check without mounting the coupler onto the sensor. The design incorporates emitters operating in the ultraviolet spectrum and an infrared laser to functionally check all operational parameters of the optical sensor. Software control through a rugged laptop and graphical user interface displays ensure high quality system functional and parametric testing, for a complete, integrated system health check.

The software supports creation of new missile signatures, recalling predefined signatures and generating multiple laser threats such as: laser range finders, laser designators and beam riders. Customized, adaptable software provides flightline maintenance personnel the ability to monitor key parameters, which are normally accomplished manually by highly trained maintenance specialists at higher maintenance level facilities. Key performance parameters include optical sensor sensitivity and operation, aircraft wiring and connector integrity, and recognition of simulated missile and laser signatures. Multiple couplers can stimulate all quadrants from the optical sensors through the system processor, using DRS threat simulation software.

*Specifications subject to change without notice.