The Center for Countermeasures

The Center for Countermeasures (the Center) is a joint activity that directs, coordinates, supports, and conducts independent countermeasure/counter-countermeasure (CM/CCM) test and evaluation activities for U.S. and foreign weapon systems, subsystems, sensors, and related components in support of DOT&E, weapon system developers, and the joint warfighter. The Center's testing and analysis helps in confirming the operational effectiveness and operational suitability of major acquisition programs' CM/CCM subsystems, ideally, early on in their development cycle.

Specifically, the Center:
- Performs early CM assessments
- Determines performance and limitations of precision-guided weapon systems and subsystems against CMs
- Develops and evaluates CM/CCM techniques and devices
- Tests CMs in the operational environment
- Provides analysis and recommendations on CM/CCM effectiveness
- Supports warfighter experimentation

During FY08, 50 percent of the Center's activities were in support of DOT&E oversight programs. Additionally, the Center participated in Operational Test/Developmental Test (OT/DT), live fire, experimental, and exercise support related to the CM/CCM mission area. Significant testing and exercise support activities were Global War on Terror focused. The Center performed 24 activities this year. The following are representative of this year's activities:

OPERATIONAL TEST/DEVELOPMENTAL TESTS

- **Air Force:** CV-22

  Sponsor: The Air Force Operational Test and Evaluation Center CV-22 Integrated Test Team

  Purpose: The Center supported OT-IIIC phase of the CV-22 IOT&E Directed Infrared Countermeasures flight test.

  Benefit to the warfighter: This assessment of the Infrared Countermeasures (IRCMs) determined the ability to protect the CV-22 tilt rotary aircraft against threat man-portable air defense system (MANPADS).

- **Navy:** Department of the Navy Large Aircraft Infrared Countermeasure (DoN LAIRCM)

  Sponsor: Navy Program Executive Officer, Tactical Aircraft Programs (PMA-272)

  Purpose: The Center supported the DoN LAIRCM program's DT, Quick Reaction Test, and live fire testing. The Center performed a series of five tests to assess effectiveness and suitability of the integration of a modified IRCM system on the Navy's CH-53D/E, CH-46E, and MV-22 platforms.

  Benefit to the warfighter: The assessment of this threat detection and IRCM on Navy platforms leveraged the Air Force's previously developed IRCM systems.

- **Army:** U.S. Army IRCM and Threat Acquisition Test

  Sponsor: U.S. Army Office of the Project Manager for Close Combat Systems and Research, Development, and Engineering Command (RDECOM)/Armament Research Development and Engineering Center

  Purpose: The Center performed IRCM flare sequence testing to improve the IRCM effectiveness for the CH-47D, MH-60G, and AH-64D helicopters.

  Benefit to the warfighter: This allowed the Program Offices to identify and utilize preferred flare sequences and threat acquisition information as a part of their warfighting strategy.

- **Army:** Laser Detecting Set

  Sponsor: Program Executive Office Intelligence, Electronic Warfare, and Sensors, Aircraft Survivability Equipment

  Purpose: The information gathered during this program assisted in validation of a U.S. Army and Evaluation Command material release for a laser warning system currently installed on the Army's UH-60M and AH-64D helicopters.

  Benefit to the warfighter: The Army uses this laser detection system in support of Special Operation Aviation and it is considered vital to force protection.

- **Marine Corps:** Night Targeting System Upgrade (NTSU) and Target Sight System (TSS)

  Sponsor: Air Test and Evaluation Squadron NINE (VX-9)

  Purpose: The Center evaluated the performance of the NTSU and TSS systems in the target acquisition tasks of detection, recognition, and identification in both benign and CM environments.

  Benefit to the warfighter: This system assists the aircrew or pilot to detect, recognize, identify, and target threat systems at long ranges and under adverse weather conditions.

LIVE FIRE TESTS

- **Navy:** Joint Standoff Weapon (JSOW) Unitary Block II

  Sponsor: Commander, Operational Test and Evaluation Force

  Purpose: The Center evaluated the capabilities and limitations of a precision-guided munition (JSOW-C) in a CM environment during both captive flights and a live fire event.

Benefit to the warfighter: This assisted the Program Office in the identification of the capabilities and limitations of JSOW in a CM environment.

- **U.S. Department of Homeland Security (DHS):** Counter-MANPADS Program

  Sponsor: DHS

  Purpose: The Center conducted live fire tests on two commercial airliner IRCM protection systems to determine the IRCM's applicability to protect the commercial aviation fleet.

  Benefit to civilians and warfighters: Leveraging of systems evaluated could benefit the military's large aircraft protection capabilities.

EXPERIMENTAL

- **Army:** CatsEye - Laser Threat Warning Sensor

  Sponsor: U.S. Army RDECOM Communications-Electronics Research Development and Engineering Center

  Purpose: The Center provided performance and CM testing for the CatsEye sensor to determine operational system capabilities/limitations and recommend system improvements to U.S. Army RDECOM.

  Benefit to the warfighter: The Army designed the program to detect, identify, and geo-locate this new technology for use on both military and commercial aircraft.

- **Navy:** Starlight III and Starbright

  Sponsor: Naval Research Lab and the Naval Air Systems Command, Patuxent River, Maryland

  Purpose: Starlight III and Starbright are initiatives to develop an effective active CM against laser beamrider missiles.

  Benefit to the warfighter: These experiments assisted in future development of CMs.

FOREIGN SYSTEMS

- **National Ground Intelligence Agency (NGIC):** Foreign False Target Generator (FFTG) III

  Sponsor: NGIC

  Purpose: The FFTG is a foreign CM system that generates false signatures to defeat U.S.- developed precision-guided weapon systems.

  Benefit to the warfighter: Information gathered from this test will assist the warfighter in defeating this CM so the target of interest can be successfully engaged.

- **Air Force:** Stormer Widget

  Sponsor: Air Force Research Laboratory

  Purpose: Stormer Widget is an Electro-Optic Countermeasure Technology Demonstrator developed by the United Kingdom. The Center evaluated the capabilities and limitations of the Stormer Widget system under both static and dynamic conditions.

  Benefit to the warfighter: Leveraging of this foreign evaluation and developmental technology will benefit other U.S. military programs.

JFCOM AND EXERCISE SUPPORT

- The Center participated in two Carrier Air Wing exercises at Fallon Naval Air Station, Nevada; one Alaska Command Joint Red Flag Exercise at Eielson AFB, Alaska; and one Desert Talon exercise at the Marine Corps Air Station, Yuma, Arizona. Support to these exercises consisted of observing aircraft sensor/ASE systems and crew reactions in a simulated threat/CM environment.

  Benefit to the warfighter: Presentation of CMs in an operational environment assists the warfighter in training, tactics, and procedures development for use in the Global War on Terror.