

Advanced Threat Infrared Countermeasure/Common Missile Warning System (ATIRCM/CMWS)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Detects missile launches/flights, protects aircraft from Tier 1 infrared (IR) guided missiles, and provides threat awareness and IR countermeasures using an airborne self-protection system.

DESCRIPTION

The Advanced Threat Infrared Countermeasure/Common Missile Warning System (ATIRCM/CMWS) integrates defensive infrared countermeasures capabilities into existing, current-generation aircraft to engage and defeat multiple IR guided missile threats simultaneously.

The U.S. Army operational requirements concept for IR countermeasure systems is the Suite of Integrated Infrared Countermeasures (SIIRCM). It mandates an integrated warning and countermeasure system to enhance aircraft survivability against infrared guided threat missile systems. The ATIRCM/CMWS Program forms the core element of the SIIRCM concept. ATIRCM/CMWS has a modular configuration consisting of an

integrated ultraviolet missile warning system, an Infrared Laser Jammer, and Improved Countermeasure Dispensers (ICMDs). This configuration can vary with aircraft and type.

CMWS can function as a stand-alone system with the capability to detect missiles and provide audible and visual warnings to pilots. When installed with the Advanced IIRCM Munitions and ICMDs, it activates expendables to decoy/defeat infrared-guided missiles. ATIRCM adds the Directed Energy Laser Countermeasure Technology to CMWS and is a key for Future Force Army aircraft.

SYSTEM INTERDEPENDENCIES

In this Publication

CH-47F Chinook, Kiowa Warrior, Black Hawk/UH-60

Other Major Interdependencies

AH-64A, AH-64D, C-12R/T/U, C-23, C-26, Constant Hawk-A, Constant Hawk-I, DHC-7, HH-60L, HH-60M, MH-47E/G, MH-60K/L/M, RC-12/C-12, RC-12K/N/P/Q, UC-35

PROGRAM STATUS

- **Current:** All aircraft deployed to Operation Iraqi Freedom/Operation Enduring Freedom equipped with CMWS prior to deployment; OH-58D, Kiowa Warrior is latest platform to integrate CMWS
- **Current:** In process, next generation Electronic Control Unit (ECU) and Missile Warning Algorithms for all aircraft

PROJECTED ACTIVITIES

- **Continue:** ATIRCM Quick Reaction Capability (QRC), the Army's latest Aircraft Survivability Equipment (ASE) initiative to protect crews and aircraft from advanced threat Man-Portable Air Defense Systems (MANPADS)
- **Ongoing:** Fielding to CH-47D/F models
- **1QFY11:** Next generation ECU (for CMWS) initial deliveries planned

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

Advanced Threat Infrared Countermeasure/Common Missile Warning System (ATIRCM/CMWS)

FOREIGN MILITARY SALES
United Kingdom

CONTRACTORS

ATIRCM/CMWS (Prime):

BAE Systems (Nashua, NH)

Logistics Support:

AEPCO (Huntsville, AL)

Software Configuration Management Support:

Science Applications International Corp. (SAIC) (Huntsville, AL)

CMWS-GTRI E2E Data Analysis/SIL Development:

Georgia Tech Applied Research Corp. (Atlanta, GA)

OH-58D Product Documentation Update:

Bell Helicopter Textron (Fort Worth, TX)

Test Support Data Analysis:

MacAulay-Brown, Inc. (Dayton, OH)

UH-60A/L P31 Upgrade:

Rockwell Collins (Cedar Rapids, IA)

Engineering/Tech Production Support:

Computer Sciences Corp. (CSC) (Huntsville, AL)

OATS Phase 3:

David H. Pollock Consultants (Eatontown, NJ)

AN/ALQ-212
Advanced Threat Infrared Countermeasures (ATIRCM)

AAR-57(V)3/5
Common Missile Warning System (CMWS) / ICMD

AAR-57(V)3/5
Improved Countermeasures Dispenser (ICMD)



Infrared Jam Head (IRJH)



Jam Head Control Unit (JHCU)



Infrared Multi-band Laser (MBL)



Electro-Optic Missile Sensors (EOMSs)



Electronic Control Unit (ECU)



AN/ALE-47 Sequencer (GFE)



Smart Dispenser

