

# Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS)

## INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

## MISSION

EMARSS is the Army's next generation C-12 based, direct support, manned airborne intelligence collection, processing, and targeting support system. EMARSS provides a persistent multi-intelligence capability to detect, locate, classify/identify, and track surface targets with a high degree of timeliness and accuracy. EMARSS aircraft will be assigned to the U.S. Army Intelligence and Security Command's (INSCOM's) Aerial Exploitation Battalions (AEB).

## DESCRIPTION

EMARSS is a multi-intelligence airborne intelligence, surveillance, and reconnaissance (AISR) system dedicated specifically to direct support of the tactical commander. It enhances Brigade Combat Team (BCT) effectiveness by defining and assessing the environment and providing surveillance, targeting support, and threat

warning. EMARSS is a key contributor to the tightly woven, highly integrated network of intelligence and operations Warfighting functions that is necessary to maintain contact and develop targets of interest in an Irregular Warfare (IW) environment and across the range of military operations (ROMO).

EMARSS is a multi-INT AISR system that provides the capability to detect, locate, classify/identify, and track surface targets in day/night, near-all-weather conditions with a high degree of timeliness and accuracy. The EMARSS AISR capabilities include an electro-optical/infrared (EO/IR) with full motion video (FMV) sensor, a communications intelligence (COMINT) sensor, and an Aerial Precision Guidance (APG) sensor—all supported by line-of-sight (LOS) and beyond-line-of-sight (LOS/BLOS) communications and hosted on a manned, medium-altitude, derivative of the commercial Hawker-Beechcraft King Air 350ER aircraft. EMARSS operates as a single platform in support of tactical missions, but through connectivity to tactical and national networks also contributes to the Joint overall AISR constellation.

EMARSS contains a tailored set of Distributed Common Ground System-Army (DCGS-A)-enabled software and ISR processing software functionalities to process, exploit, and rapidly disseminate the intelligence derived from the imagery sensor. The APG operator brings onboard his processing and software tools to control the APG sensor and perform analysis and reporting. The imagery and APG operators release time-sensitive information directly to the supported BCT and subordinate units, and to the DCGS-A. The COMINT sensor is controlled through LOS and BLOS communications at the DCGS-A, where the processing, analysis, and timely reporting to the supported tactical force is accomplished. Selected EMARSS imagery is immediately processed on the aircraft and the collected imagery is also forwarded to the DCGS-A for further processing, analysis, and reporting. EMARSS complies with the DoD Information Technology Standards Registry and Defense Information Systems Network (DISN). This architecture permits interoperability with any multiservice or Joint system that complies with DoD-standard formats for data transfer and dissemination.

This combination of attributes provides the ground tactical commander an assured near-real-time operational view of the battlespace, enabling tactical ground forces to operate at their highest potential.

## SYSTEM INTERDEPENDENCIES

### In this Publication

Distributed Common Ground System-Army (DCGS-A)

## PROGRAM STATUS

- **1QFY11:** Milestone B Completed, Engineering and Manufacturing Development (EMD) contract awarded
- **1QFY11:** Industry GAO Protests resulting in Stop Work Order
- **3QFY11:** Protests resolved, EMD contract efforts resume

## PROJECTED ACTIVITIES

- **4QFY12:** Joint Requirements Oversight Council consideration of the CPD
- **FY13:** Developmental Test and Limited User Testing
- **FY13:** Milestone C

## ACQUISITION PHASE

Technology Development

Engineering and Manufacturing Development

Production and Deployment

Operations and Support

## Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS)

### FOREIGN MILITARY SALES

None

### CONTRACTORS

**EMD Contractor:** The Boeing Company (Prime) (Ridley Park, PA), Hawker-Beechcraft (Airframe) (Wichita, KS), L-3 Communications West (SATCOM) (Salt Lake City, UT), BAE Systems (COMINT Hardware/Software) (Nashua, NH), Avence (Training and Operational Testing) (Dulles, VA), Rockwell Collins (Cockpit Avionics) (Cedar Rapids, IA)

**Systems Engineering/Technical Assistance (SETA) Support:** CACI (Tinton Falls, NJ), Booz Allen Hamilton (Eatontown, NJ)

**Engineering/Program Management:** MITRE (Eatontown, NJ)

**Aircraft Engineering:** CAS Inc. (Huntsville, AL), Science Applications International Corp. (SAIC) (Huntsville, AL)

**Information Assurance:** Sensor Technologies (Red Bank, NJ)

**Program Support:** CACI (Arlington, VA)

**Software Engineering Support:** Lockheed Martin (Tinton Falls, NJ)

