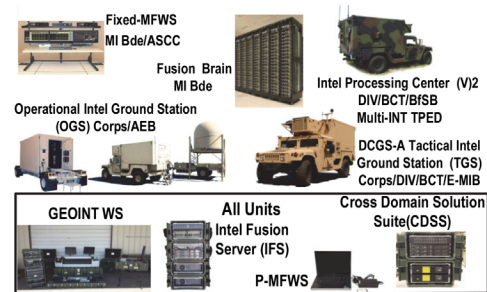# Distributed Common Ground System – Army (DCGS-A)

Executive Summary
- DOT&E reported on January 29, 2016, that the Distributed Common Ground System – Army (DCGS-A) Increment 1, Release 2 is operationally effective and suitable, but not survivable against cyber threats due to the vulnerability of the Army network.
- The Defense Acquisition Executive approved the DCGS-A Increment 2 Material Development Decision on October 9, 2015.
- DCGS-A Increment 2 includes two releases. The Army Test and Evaluation Command (ATEC) will conduct the IOT&E with Release 1 in FY19 to inform the Full Deployment Decision in early FY20. The Army will continue Increment 2 development and testing with Release 2. The increment 2, Release 2 fielding decision is planned for FY22.

System
- DCGS-A is the Army Service component of the DOD DCGS family of systems, providing multi-Service integration of intelligence, surveillance, reconnaissance (ISR), and targeting capabilities. DCGS-A connects with the DCGS family of systems via the DCGS Integration Backbone (DIB). The DIB is a cohesive set of modular, standards-based data services focused on enterprise information sharing. The DCGS Multi-Service Execution Team manages the DIB.
- DCGS-A Increment 1, Release 2 is a command and control system that tasks, processes, exploits, and disseminates ISR information from battalion to Echelons Above Corps (EAC) by combining 16 independent legacy systems of record into one comprehensive network, including the capability to process Top Secret/Sensitive Compartmented Information.
- DCGS-A Increment 1 has a planned modernization strategy until Increment 2 fielding. The modernization efforts focus on end-of-life obsolescence and cyber updates. The system picture above shows the Increment 1, Release 2 configuration.
- DCGS-A Increment 2 will consist of a collection of software packages selected to provide each Army echelon from battalion to EAC the capability to synthesize and exploit intelligence data.
  - The software packages will be commercial off-the-shelf and government off-the-shelf hardware components, configured to meet the Army unit's intelligence mission and mobility requirements.
  - The program intends to deliver these Increment 2 capabilities in two releases. The Army will develop the Increment 2 configuration after the Milestone B decision in FY17.

Fixed-MFWS MI Bde/ASCC
Fusion Brain MI Bde
Operational Intel Ground Station (OGS) Corps/AEB
Intel Processing Center (V)2 DIV/BCT/BfSB Multi-INT TPED
DCGS-A Tactical Intel Ground Station (TGS) Corps/DIV/BCT/E-MIB
GEOINT WS
All Units Intel Fusion Server (IFS)
Cross Domain Solution Suite(CDSS)
P-MFWS

AEB – Area Exploitation Battalion
ASCC – Army Service Component Command
BCT – Brigade Combat Team
Bde – Brigade
BfSB – Battlefield Surveillance Brigade
DIV – Division
E-MIB – Military Intelligence Battalion, Expeditionary
GEOINT – Geospatial Intelligence
MFWS – Multi-Function Work Station
MI – Military Intelligence
P-MFWS – Portable Multi-Function Work Station
TPED – Task, Process, Exploit and Disseminate
WS – Work Station

Mission
- Army intelligence units use DCGS-A to fuse intelligence information and produce enemy situational awareness products.
- Army intelligence analysts use DCGS-A to perform receipt and processing of select ISR sensor data, intelligence synchronization, ISR planning, reconnaissance and surveillance integration, fusion of sensor information, and direction and distribution of relevant threat, non-aligned, friendly, and environmental (weather and geospatial) information.

Major Contractors
- General Dynamics – Taunton, Massachusetts
- ManTech – Fort Hood, Texas
- Booz Allen Hamilton – Aberdeen Proving Ground, Maryland
- Exelis Incorporation – Mclean, Virginia

Activity
- ATEC conducted the DCGS-A Increment 1, Release 2 FOT&E in May 2015 during the Army's Network Integration Evaluation (NIE) 15.2 at Fort Bliss, Texas, and in a database synchronization test at the Ground Station Integration Facility (GSIF) at Aberdeen Proving Ground, Maryland, in September 2015. Cybersecurity tests were conducted during NIE 15.2 and at the GSIF before and after the NIE 15.2. ATEC conducted the tests in accordance with the DOT&E-approved test plan, but did not conduct the data collection, reduction, and analysis as described in the test plan.

- DOT&E provided a report to Congress on January 29, 2016, evaluating DCGS-A based on data obtained from the test events.
- The Defense Acquisition Executive approved the DCGS-A Increment 2 Material Development Decision on October 9, 2015.
- DCGS-A Increment 2 includes two releases. ATEC will conduct the IOT&E with Release 1 in FY19 to inform the Full Deployment Decision in early FY20. The Army will continue Increment 2 development and testing with Release 2. The Increment 2, Release 2 fielding decision is planned for FY22.

Assessment

- DOT&E evaluated the Increment 1, Release 2 to be operationally effective and suitable, but not survivable against cyber threats due to the vulnerability of the Army network.
- DCGS-A Increment 1 is operationally effective. DCGS-A allows Army intelligence units to rapidly receive and organize intelligence from more than 700 sources, search relevant information, perform analysis, and share the results with the Army command and control network as well as the intelligence community through the DCGS Integration Backbone.
- DCGS-A Increment 1 is operationally suitable, provided the Army intensively trains DCGS-A users and provides continued

refresher training to units in garrison. DCGS-A is a complex system, and the skills required to use it are perishable. The operational availability of DCGS-A satisfied the requirements at all echelons, and reliability improved from the IOT&E in 2012. There were no hardware failures during the FOT&E. Software failures were still a challenge for users; the system required reboots about every 20 hours for users who had heavy workloads such as the fire support analysts and data managers in Brigade Combat Team Tactical Operations Centers.

- The survivability results are classified but can be found in classified annex B of the January 2016 DOT&E report on DCGS-A Increment 1, Release 2 FOT&E.

Recommendations

- Status of Previous Recommendations. The Army is implementing the previously recommended actions.
- FY16 Recommendations.
  1. ATEC should continue to develop the Test and Evaluation Strategy for Increment 2.
  2. The Army should continue to provide intensive training to DCGS-A users, including refresher training to units in garrison.