

Global Command and Control System (GCCS) - Joint

SUMMARY

- The Global Command and Control System - Joint (GCCS-J) conducted an Initial Operational Test and Evaluation (IOT&E) in January 2004 and a retest in June 2004. The test focused on two major subsystems:
 - Joint Operational Planning and Execution System (JOPES).
 - Status of Resources and Training System (SORTS).
- JOPES testing revealed shortcomings in database synchronization, overall system performance, and interoperability. The new JOPES system will not be fielded in its present state.
- SORTS testing showed this portion of GCCS-J is effective and suitable, and will be fielded as soon as possible.



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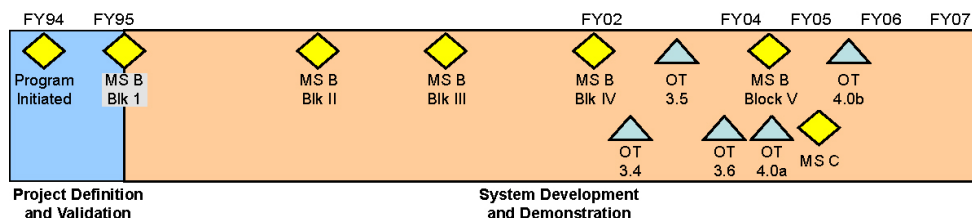
SYSTEM DESCRIPTION AND MISSION

GCCS-J is the central command and control system for achieving decision superiority described in Joint Vision 2020. It provides seamless battlespace awareness and a fused battlespace picture by exchanging data, imagery, intelligence, status of forces, and planning information. The GCCS supports interoperability by linking the National Command Authority down to the Joint Task Force, Component Commanders, and Service-unique systems. GCCS-J mission applications are Defense Information Infrastructure (DII) Common Operating Environment (COE) compliant and feature a constantly improving client/server architecture, office automation, government-developed military planning software, and increasing use of web technologies.

The GCCS-J Program Management Office determined that a two-part test for potential fielding of GCCS-J 4.0 would reduce risk and allow early fielding of selected capabilities:

- The GCCS-J 4.0(a) test would focus on Force Projection and Force Readiness mission areas.
- The GCCS-J 4.0(b) test would focus on updates to site infrastructure, server hardware, operating systems, relational database management systems, and DII COE version. GCCS-J 4.0(b) also upgrades the Common Operational Picture and Integrated Imagery and Intelligence applications.

TEST AND EVALUATION ACTIVITY



DOD PROGRAMS

JITC conducted the GCCS-J 4.0(a) IOT&E in January 2004 at over 15 sites world-wide to determine the effectiveness and suitability of the new JOPES and SORTS portions of GCCS-J. The Program Management Office paused this test prior to the scheduled end of the test. GCCS-J 4.0(a) IOT&E resumed the test in June 2004 to determine effectiveness and suitability of JOPES and SORTS.

GCCS-J 4.0(b) IOT&E in March 2005 is intended to determine effectiveness and suitability of the significant upgrades to the operating system, relational database management systems, and hardware infrastructure, as well as upgrades to the Common Operational Picture and Integrated Imagery and Intelligence applications. This test will ensure the new upgrades continue to support the legacy 3.6.6 JOPES while the Defense Information Systems Agency (DISA) addresses needed improvements in JOPES.

TEST AND EVALUATION ASSESSMENT

GCCS-J v4.0(a) IOT&E, conducted by JITC in January 2004, focused on JOPES and SORTS, and resulted in a finding of not effective and not suitable.

The operational community provided good support to the testers with scenarios, personnel, installation architecture, and configuration information. The new JOPES architecture did not solve long-standing database synchronization and performance problems. Major shortcomings also included:

- Slow server processing resulting in large transaction queues.
- A large number of high priority problem reports.
- Interfaces with 6 of the 13 key systems.
- Security problems.

The rate at which users discovered new problems showed a lack of software maturity. Due to these early test results, DISA stopped the test, upgraded the JOPES servers and software, and recommended Concept of Operations changes to improve performance. The program offices for interfacing systems also made changes to improve interoperability. The GCCS-J program office scheduled a new test in June 2004, which revealed major improvement in JOPES software maturity.

The SORTS portion of GCCS-J 4.0(a) performed very well during this test, and DISA expects to begin fielding SORTS. However, the JOPES servers were still too slow under threshold loading, and synchronization problems still occurred. Key interfacing systems such as the Deliberate and Crisis Action Planning and Execution System and GCCS-Army experienced problems. DISA is currently assessing the best way ahead for JOPES. The program office will need to address the two problem areas of database synchronization and server performance to meet user requirements.

DOT&E will continue to monitor testing of all GCCS-J releases.