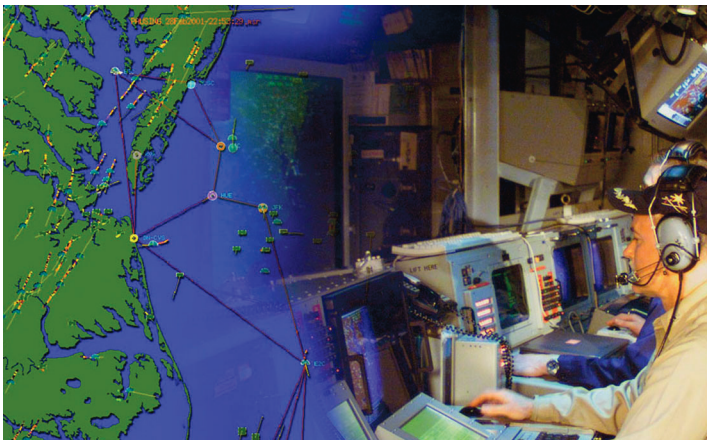
Cooperative Engagement Capability (CEC)

Executive Summary
- Evaluation of late FY04 operational testing was completed in early FY05. Most issues identified in testing conducted in FY04 appear corrected.
- Follow-on Operational Testing and Evaluation (FOT&E) planned for late FY05 was delayed to early FY06.

System
- The Cooperative Engagement Capability (CEC) is a system of hardware and software that allows surface ships and E-2C aircraft to share radar data. It consists of two main hardware pieces:
  - Cooperative Engagement Processor (CEP) to collect and fuse radar data
  - Data Distribution System (DDS) to distribute the CEP data with other CEC equipped units
- Open Architecture upgrade using commercial off-the-shelf (COTS) components is under development.

Mission
Ships and aircraft equipped with CEC:
- Accomplish air defense missions in an enhanced manner by sharing a comprehensive situational awareness of all air contacts



- Have a higher likelihood of air defense mission accomplishment because a CEC equipped ship can fire missiles at a hostile air contact without having actual radar contact

Activity
- The Navy planned CEC operational testing in FY05, but delayed it until early FY06. Results have not been analyzed or reported.
- DOT&E approved a Test and Evaluation Master Plan (TEMP) update to support testing through FY06.

Assessment
- IOT&E for the airborne CEC system conducted late FY04 showed that deficiencies found in the FY01 shipboard system testing were still present. Evaluation results were available in early FY05. Most deficiencies identified in FY04 operational testing have been corrected or ameliorated. Verification of deficiency correction will be demonstrated during the FY06 FOT&E. Results of that FOT&E will be published in our FY06 Annual Report. Fielding of CEC continues in the DDG-51 class, in aircraft carriers, in amphibious warfare ships, and in E-2C aircraft.
- The Navy is pursuing open architecture upgrades to CEC, which will be installed on future platforms and back fitted into existing units as appropriate. Developmental testing of open architecture upgrades is ongoing. Open architecture upgrades are projected to fix outstanding deficiencies.

Recommendations
1. Continue to correct the deficiencies identified in earlier testing.
2. Continue development of the open architecture upgrade to CEC projected for FY06.