

Joint Warning and Reporting Network (JWARN)

Executive Summary

- The program completed Developmental Test-3 and an Operational Assessment in FY07 to support a Milestone C decision in July 2008. The Joint Warning and Reporting Network (JWARN), specifically the mission application software, demonstrated basic functionality and integration with the host communications networks.
- The Air Force Operational Test and Evaluation Center (AFOTEC) conducted Multi-Service Operational Test and Evaluation (MOT&E) in August 2008. AFOTEC is analyzing and evaluating the test data.

System

- JWARN mission application software (JMAS) implements NATO reporting and hazard prediction for chemical, biological, radiological, and nuclear (CBRN) hazards. The program also includes a hardware device that links CBRN sensors to the JWARN network. This device is called the JWARN component interface device (JCID).
- The Services host JMAS on Global Command and Control Systems and other tactical command, control, communications, computers, and intelligence (C4I) networks.

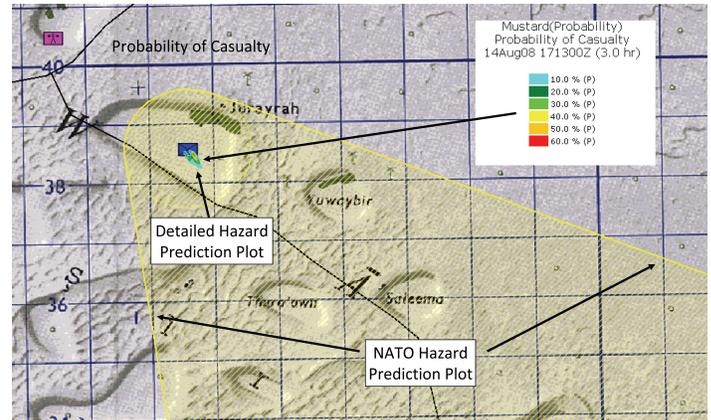
Mission

Commanders use JWARN to disseminate warning and CBRN hazard prediction in order to protect the force. JWARN:

- Warns units of NBC hazards
- Formats, sends, receives, and correlates CBRN and Release Other Than Attack (ROTA) reports

Activity

- The prime contractor completed JMAS integration activities on three platforms in March 2008: Global Command and Control System, Command and Control Personal Computer, and Maneuver Control System.
- The program completed Developmental Testing-3 and a user assessment in March 2008.
- In July 2008, the Joint Program Executive Officer for Chemical and Biological Defense approved entry to MOT&E for JMAS in FY08 and the production of 300 low-rate initial production (LRIP) JCIDs to provide production-representative articles for a JCID IOT&E in FY09.
- AFOTEC, along with the Service OTAs, conducted the MOT&E for JMAS in accordance with the DOT&E-approved Test and Evaluation Master Plan (TEMP) and test plan at Fort Hood, Texas, in August 2008.
- The program manager is updating the TEMP to reflect the Milestone C LRIP decision to de-link JMAS and JCID IOT&Es.



Screenshot of Hazard Prediction Plot After Mustard Gas Attack

- Interacts with Joint Effects Model to generate detailed hazard predictions; will be able to interact with the Joint Operational Effects Federation to determine the impact of CBRN warfare on military operations and provide decision support for operational planning
- Correlates multiple CBRN and ROTA detection reports from manual sources and from automated sensor networks
- Provides hazard prediction and targeting analysis
- Provides information to manage CBRN assets and support planning for CBRN operations.

Prime Contractor

- Northrop Grumman

Assessment

- Developmental Test-3 demonstrated integration of JMAS with the host C4I systems. The program manager did not identify any priority one failure modes (complete loss of JWARN or host system functionality).
- The program manager conducted the user assessment in a controlled environment, and demonstrated basic JWARN functionality and integration with the host C4I networks with operational users.
- Because of the difficulty in finding a suitable operational exercise to sponsor the JWARN IOT&E, AFOTEC tested JWARN in a closed environment at Fort Hood, Texas. Due to the current immaturity of the interaction functionality in the Services' host networks, the architecture under test was not representative of the network architecture that the program will field to all Services in FY09-10.
- AFOTEC and DOT&E are analyzing and evaluating the test results for the JMAS IOT&E.

DOD PROGRAMS

Recommendations

- Status of Previous Recommendations. The Air Force has addressed all previous recommendations.
- FY08 Recommendations.
 1. Under the auspices of the Service-specific host platform programs, all Services should test JWARN operating on representative Maneuver Control System, Global Command and Control System, and Command and Control Personal Computer networks.
 2. The program manager should conduct additional operational testing of JWARN in realistic operating environments and networks. These plans should be included in the revised TEMP.