

Joint Chemical Agent Detector (JCAD)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Protects U.S. forces by detecting, identifying, alerting, and reporting the presence of chemical warfare agent and toxic industrial chemical vapor.

DESCRIPTION

The Joint Chemical Agent Detector (JCAD) is a pocket-size, rugged, handheld detector that automatically detects, identifies, and alarms to chemical warfare agents and toxic industrial chemical vapors.

The services can use the system on mobile platforms, at fixed sites, and on individuals designated to operate in a chemical threat area. The system can operate in a general chemical warfare environment, and can undergo conventional decontamination procedures by the warfighter.

The Enhanced JCAD (M4E1 JCAD) goes into production in FY11. The M4E1 JCAD will reduce operation and sustainment costs, has an improved user interface, and is net-ready.

The JCAD replaces the Automatic Chemical Agent Detector and Alarm (ACADA or M22), M90, and M8A1 systems. The JCAD may replace the Chemical Agent Monitor (CAM) and Improved Chemical Agent Monitor (ICAM).

Specific capabilities include:

- Instant feedback of hazard (mask only or full Mission-Oriented Protective Posture)
- Real-time detection of nerve, blister, and blood agents
- Stores up to 72 hours of detection data
- The M4E1 will be net-ready through implementation of the common chemical, biological, radiological, and nuclear standard interface

SYSTEM INTERDEPENDENCIES

High Mobility Multipurpose Wheeled Vehicle (HMMWV), Modular Lightweight Load-carrying Equipment (MOLLE), M113, M2 (Bradley)

PROGRAM STATUS

- **4QFY08:** Full-rate production and full materiel release; fielding of the M4 JCAD to the Services
- **FY10:** Customer testing of M4E1 JCAD

PROJECTED ACTIVITIES

- **FY11:** Continue fielding M4 JCAD to the services
- **FY11:** Production verification testing of M4E1 JCAD
- **FY11:** Production cut-in decision for M4E1 JCAD

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

Joint Chemical Agent Detector (JCAD)

FOREIGN MILITARY SALES

None

CONTRACTORS

Smiths Detection, Inc. (Edgewood, MD)

