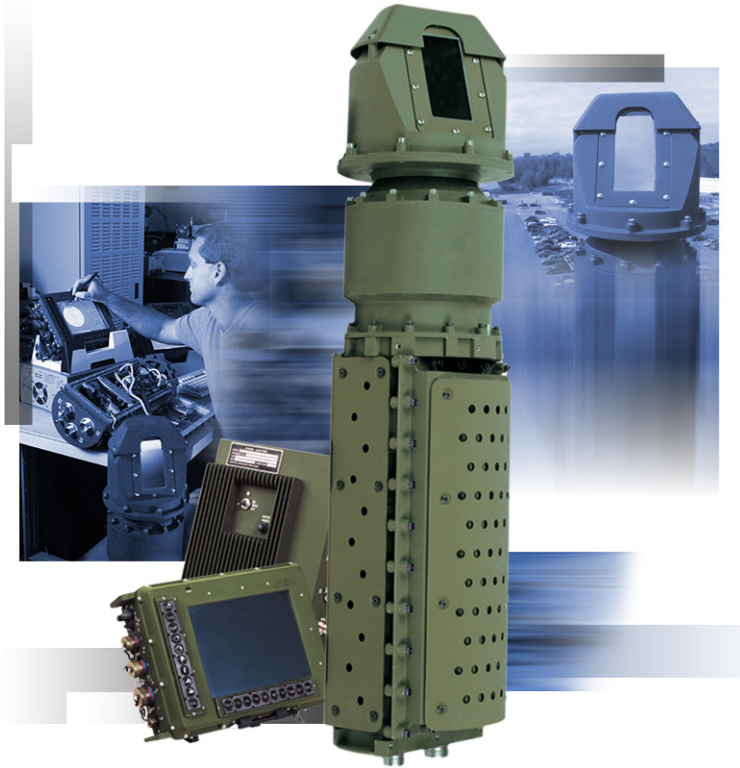


JSLSCAD

joint service lightweight standoff chemical agent detector



The Joint Service Lightweight Standoff Chemical Agent Detector developed and produced by General Dynamics Armament and Technical Products provides ground platforms of the 21st century with state-of-the-art remote chemical agent detection.

The unit uses a passive infrared detection system that automatically searches the 7- to 14-micron region of the surrounding atmosphere for chemical agent vapor clouds. Using sophisticated pattern recognition algorithms, JSLSCAD detects, classifies and identifies chemical agents while discriminating against both natural and manmade battlespace interferences. Once detection is made, JSLSCAD identifies the agent cloud and alerts operators with audible and/or visual alarms. It also indicates the direction and extent of the agent cloud on a graphical computer display and forwards the Nuclear, Biological and Chemical report details through the Joint Warning and Reporting Network.

The JSLSCAD is the first chemical detection system to furnish 360-degree coverage for ground platforms for a detection range of up to 2 kilometers, allowing personnel to avoid contaminated areas or don protective masks and clothing.

Specifications

Dimensions	SEM/Scanner-360° (33Hx8D inches/(838x203mm) ODU (9Hx12Wx3D inches/222x311x80mm) PA (11Wx13Hx5D inches/279x330x127mm)
Weight	SEM-360° (41 pounds/18.6 kg) PA (15 pounds/ 6.8 kg) ODU (11 pounds/5 kg)
Power	28 Vdc vehicle power, 115 Vac, or 220 Vac
Agents detected	Nerve and blister
Operating temperature	-25.6°F to 120°F (-32°C to 49°C)
Storage temperature	-38°F to 126°F (-39°C to 52°C)
Environmental	
Temperature	MIL-STD-810 Method 501-503
Vibration	Ground mobile-application induced; loose cargo transport per MIL-STD-810 Method 514.4
Electromagnetic Interference (EMI)	MIL-STD 461/462

Possible Platforms Include

- Stryker NBCRV
- Joint Service Light Reconnaissance System
- Advanced Infantry Armored Vehicle
- High Mobility Multipurpose Wheeled Vehicle
- Bases and stationary emplacements

Applications

- Ground Vehicle– mobile and stationary, 360° coverage
- Fixed-site – 360°, expandable for multi-detector configurations

Key Performance Features

- Identifies, detects and reports nerve- and blister-agent vapors
- Detects specified levels at distances of up to 2 kilometers
- Operates while stationary or on the move from ground vehicle platforms
- Survives and operate in battlefield environments
- Rejects common battlespace interferents
- Functions in a wide variety of applications through a compact, modular design
- Contains embedded training
- Allows for software upgrades in the field
- Utilizes pre-programmed, rapid hemispherical scanning
- Incorporates installation and operator-selectable scanning sectors
- Offers a rugged, flexible and interoperable design

Communications

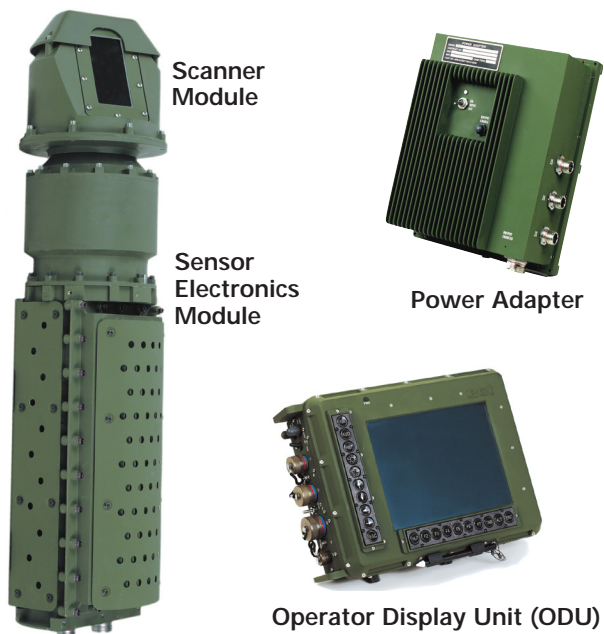
- Operator – Windows NT and XP graphical user interface
- Host/controller – JWARN
- External alarm – M42
- Protocols – SNMP, TCP, UDP, PPP
- Physical – Ethernet, serial RS-232/RS-422

Specifications

- Michelson Interferometer, HIRES/LORES scanning
- Spectral range of 7 to 14 microns
- Field of regard – 360° AZ, -10° to +50° Elevation
- Power – 115/220 VAC external, 20-32 VDC internal
- Temperature -25.6°F (-32°C) to 120°F (49°C) operating; -38°F (-39°C) to 126°F (52°C) storage

Program Status

EDT production - 15 units	April 2000
EDT complete	April 2001
PQT/IOT&E production - 40 units	July 2002
PQT completed	August 2004
PQT refurbishment	January 2005
MOT&E completed	April 2006
LRIP production	July 2007
Extended LRIP production	July 2008



GENERAL DYNAMICS

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