



The **Joint Biological Point Detection System (JBPDS)** is a robust bio detection instrument suite that is fully functional in any operational environment the user may encounter.

JBPDS provides automated detection and identification of airborne biological agents at very low levels, triggers local and remote warning systems, and communicates threat information over standard communication systems.

The system uses laser-induced fluorescence, to continuously monitor the atmospheric background for potential biological agents. When the system detects a bioaerosol signature, the collector/ concentrator is initiated to sample hundreds of liters of air per minute, providing a concentrated liquid sample for automated identification.

Sample identification is executed via lateral flow immunoassays with an automated reader assembly. If the assay shows signs of biological agents, an alarm is generated and a portion of the collected sample is provided for confirmatory laboratory analysis.

The JBPD Upgrade Kit adds a more discriminative detector, the Rapid Agent Aerosol Detector (RAAD) developed by the MIT– Lincoln Laboratory. The RAAD uses seven independent detection channels to provide enhanced selectivity and lower consumable usage.

Application Areas

- HMMWV - mounted shelters (M3IE2 BIDS)
- Light Armored Vehicles (LAV, Stryker NBCRV, JSLNBCRS)
- Shipboard, shore and port facilities

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Functional Specifications

Detection Method	Laser Induced Fluorescence
Identification Method	Automated Lateral Flow Immunoassay
Targets Detected	Bacteria, Viruses and Toxins
Multiplexing	Detection: Agnostic Identification: 10 targets per assay card
Detection Time	<30 seconds
Identification Time	<15 minutes

Other

Operating Temp.	-18°F to 122°F (-28°C to 50°C)
Storage Temp.	-40°F to 158°F (-40°C to 70°C)
Vibration	MIL-STD-810 Method 514.4 Proc. 7 - common carrier / Proc. 3 loose cargo
Electromagnetic Interference (EMI)	MIL-STD-461 MIL-STD-462

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