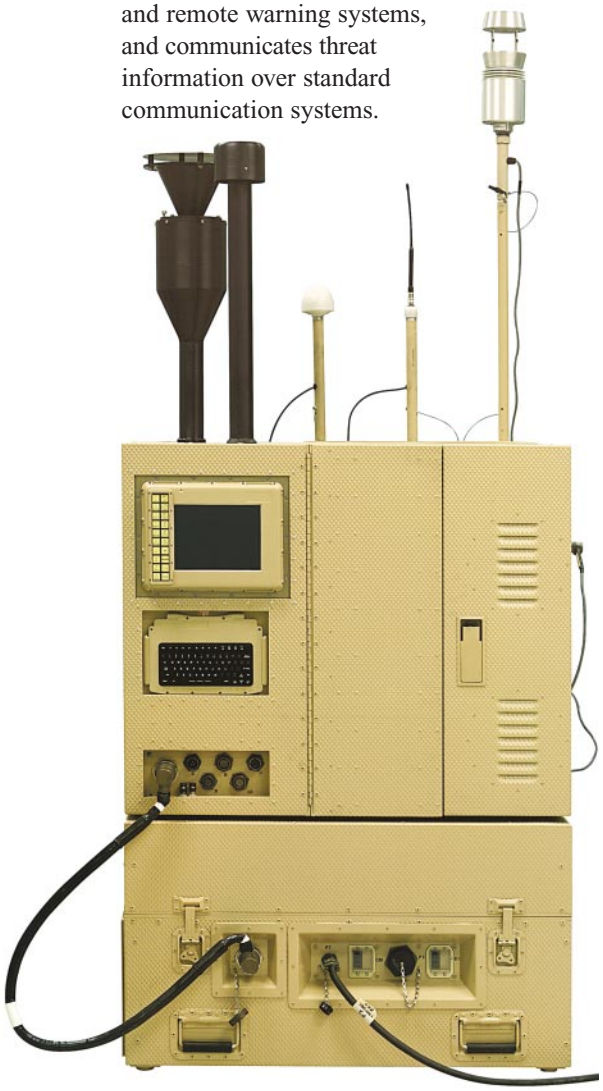
# Joint Biological Point Detection System

## System Objective

To provide a single configuration biodetection system to meet the needs for all users. By using common configurations, production and life cycle costs are reduced and inter-service operability is enhanced.

**JBPDS** is a robust biodetection instrument suite that is fully functional in any environment the users will encounter in their operations. It provides automatic detection and identification of biological warfare (BW) agents in air at very low levels, triggers local and remote warning systems, and communicates threat information over standard communication systems.



## How It Works

Using laser-induced fluorescence, the trigger/detector continuously evaluates the atmospheric aerosol background for indicators of potential BW attacks. When the algorithm detects something of a suspicious nature, the collector/concentrator is initiated to sample 100s of liters of air per minute and provides a few milliliters of liquid sample which contain the collected aerosol sample. This sample is then evaluated for specific BW agents using hand-held assays (similar to pregnancy tests) with an automated reader assembly. If the assay shows a positive, an alarm is sounded and a portion of the collected sample is provided for later analysis at a certified laboratory. The entire operation is automated.

## System Highlights

- JBPDS is simple to set up and shut down
- JBPDS components and structural elements have been ruggedized, to withstand all military environments
- Common modular configurations allow for ease in maintenance, reducing the logistics load for the joint services
- Simple man-machine interface – tested by actual users – has menu screens and touch screen buttons that are easy to understand, making the system easy to master
- Front accessibility of all components for improved maintainability
- Drop-in consumable replacement for ease of operation and consumable replenishment
- Ethernet connectivity for ease of component communications and diagnostics
- Networking of multiple systems to protect large areas
- Improved reliability and human factors engineering

## Target Applications

- HMMWV mounted shelters
- Light Armored Vehicles (LAV)
- Shipboard
- Airbase
- Shore and port facilities

## Key Features

- Detects up to 10 agents at once
- Automatic triggering, collection, detection, and identification
- Local, remote, or network operation
- Streamlined setup for initializing and operating in less than 30 minutes
- Integrated GPS receiver, MET sensor, telemetry link radio, and fiber optic link
- Generates NBC-1 and NBC-4 biological reports

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JPO-Bio Defense

JOINT BIOLOGICAL POINT DETECTION SYSTEM

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DeLand Operations ▪ www.gdatp.com
2000 Brunswick Lane, DeLand, FL 32724
Tel 386-736-1700 ▪ Fax 386-736-2250 ▪ E-mail info-deland@gdatp.com