Program of Record - Joint Biological Tactical Detection System (JBTDS)

GENERAL DESCRIPTION:

The Joint Biological Tactical Detection System is intended to be a lightweight, low-cost, battery and/or shore power operable, system designed to rapidly detect, collect, and identify Biological Warfare Agents (BWAs) which are assessed to pose a threat to the Joint Forces. JBTDS will be a modular set of components that can be utilized individually or together to provide an integrated capability set. These components perform the core biological defense functions of biological aerosol detection, collection, identification and reporting. The JBTDS will be a man-portable system that can be carried by one Warfighter over distances ranging from 500 m to 1 km. JBTDS will be a modular set of components that can be utilized individually or together to provide an integrated capability set. JBTDS will provide the flexibility to employ JBTDS components in several missions to include: biological surveillance, biological monitoring, consequence management and combating weapons of mass destruction (WMDs).

TECHNICAL DESCRIPTION:

The JBTDS is anticipated to be a modular set of components (collection-only sensor, detection-collection sensor, identification capability, and Base Station Communication Capability (BSCC)) to provide biological aerosol detection, sample collection, and presumptive/confirmatory identification. The JBTDS will provide a net centric capability by connecting to the Joint Warning and Reporting Network (JWARN). The JBTDS will consist of Commercial Off the Shelf (COTS) and Government Off the Shelf (GOTS) materiel solutions with certain capabilities networked together to provide remote control capability.

CONTACT INFORMATION

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COST

N/A

Tier Selection

Final tier assignment is based on overall product score.

Top Tier | Second Tier | Third Tier | Fourth Tier | Bottom Tier

RANKINGS

	Biological	Chemical	Radiological
FIELD USE System	Bottom Tier	N/A	N/A
MOBILE Laboratory	Bottom Tier	N/A	N/A
DIAGNOSTIC Laboratory	Bottom Tier	N/A	N/A
ANALYTICAL Laboratory	Fourth Tier	N/A	N/A

Notes

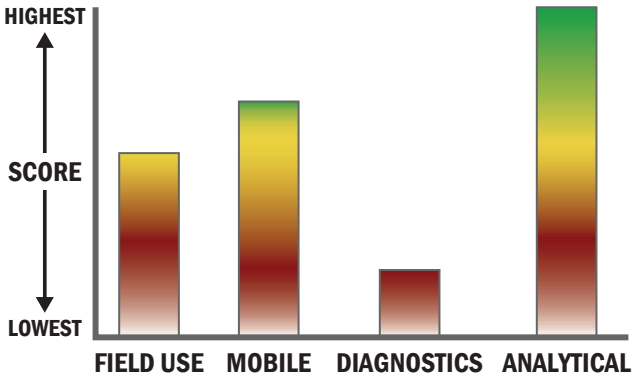
The technology for the JBTDS program has yet to be selected.

Survey Source

Vendor Supplied Information

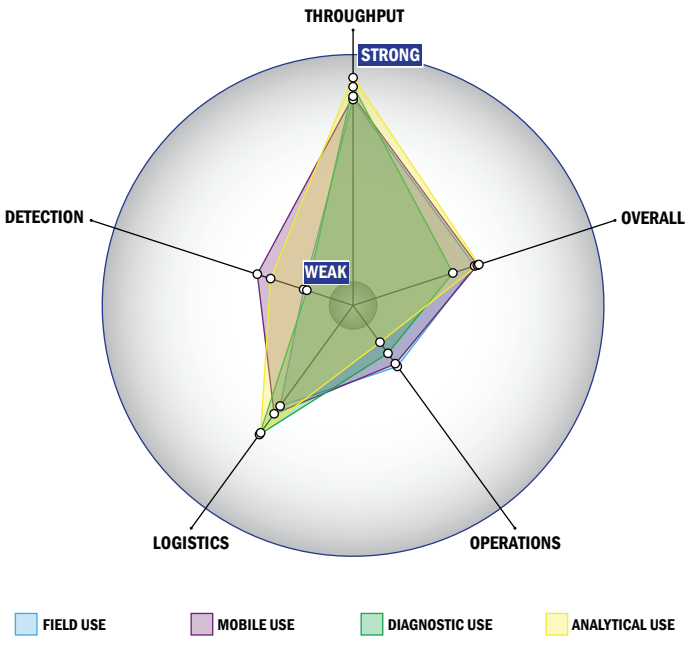
Scoring Analysis

System scores are compared across the four scenarios and ranked from highest to lowest.



Impact Chart

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



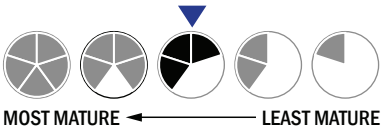
Evaluation Criteria

Throughput:

- 2 minutes or less for detection
- Continuous operation with no defined runs
- System is continuous and provides real time analysis with no defined tests/samples
- The system or device is currently semi-automated
- Device or system is intended for multiple detection assays
- 2 solutions, buffer, eluents, and/or reagents
- 1 component
- Less than 5 minutes is required for set-up
- 1-2 steps are required for detection

Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Between 25 and 50 kg
- Satellite, wireless and wired connections are available
- System or device has 110V electrical requirement
- 1-2 hours battery life



Operations:

- Can be used from 4°C to 41°C
- Components must be stored at room temperature (27°C)
- Between 1 to 3 years shelf life
- Results can be viewed in real-time

Detection:

- Possible the system could receive 510K clearance, no current efforts at this time
- Possible the system could receive FDA approval, no current efforts at this time
- Excellent specificity. System has occasional false alarms under certain conditions (<2%)
- Add on capability that is full or semi-automated for spore lysis