Trojan Defense, LLC - Carnyx Neutron Sensor

GENERAL DESCRIPTION:
Low power, low cost solid-state neutron radiation sensor.

TECHNICAL DESCRIPTION:
Carnyx combines high-sensitivity detection with low-power event logging.

CONTACT INFORMATION
Trojan Defense, LLC
2465 Centreville Rd Suite J17
Herndon, VA 20171

COST
- $1,000/system
- N/A/analysis

Tier Selection

Final tier assignment is based on overall product score.

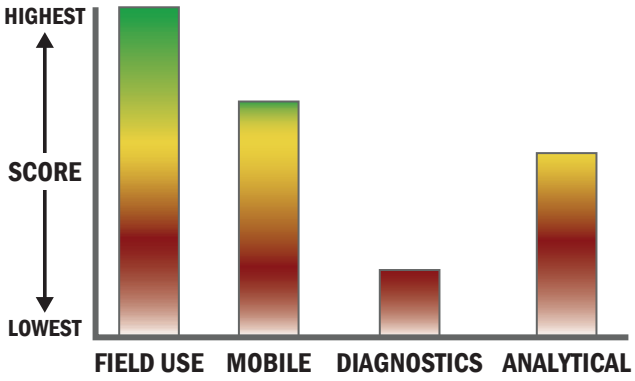
Top Tier | Second Tier | Third Tier | Fourth Tier | Bottom Tier

RANKINGS	Biological	Chemical	Radiological
FIELD USE System	N/A	N/A	Top Tier
MOBILE Laboratory	N/A	N/A	Top Tier
DIAGNOSTIC Laboratory	N/A	N/A	Top Tier
ANALYTICAL Laboratory	N/A	N/A	Top Tier

Survey Source
Vendor Supplied Information

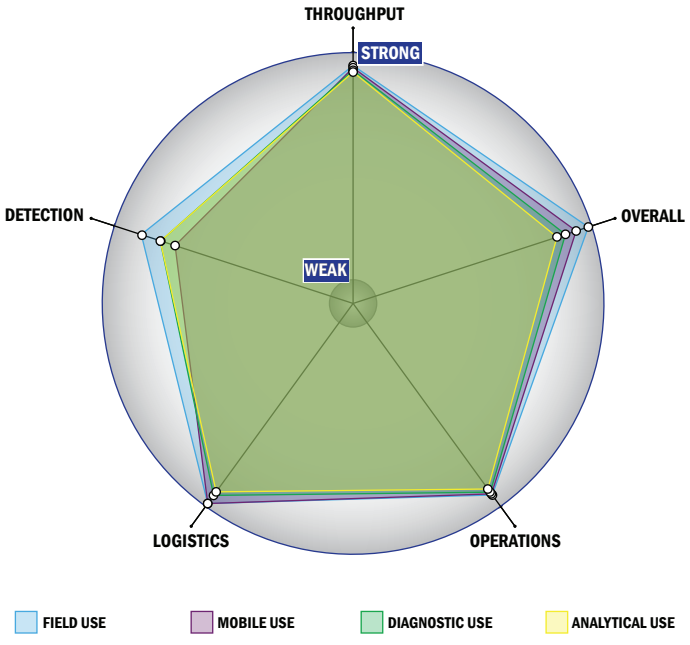
Scoring Analysis

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.



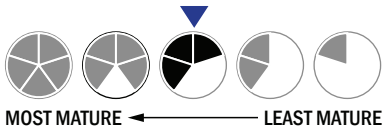
Evaluation Criteria

Throughput:

- Detection is instantaneous
- Continuous operation with no defined runs
- System is continuous and provides real time analysis with no defined tests/samples
- The system could easily be adapted into a fully automated system
- Device or system is intended for multiple detection assays
- 0-1 solutions, buffer, eluents, and/or reagents
- 0 components
- Less than 5 minutes is required for set-up
- Automatic detection

Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a soda can
- Less than 1 kg
- Satellite, wireless and wired connections are available
- System or device uses batteries
- 4-8 hours battery life



Operations:

- Can be used from < -21°C to > 42°C (All temperatures)
- Performance is not influenced by relative humidity
- 5-10 years expected life
- Results can be viewed in real-time
- The system or device is currently fully autonomous
- The system software is closed and not available for modification
- The system hardware is closed and not available for modification

Detection:

- This system does not test liquids
- Excellent specificity. System has occasional false alarms under certain conditions (<2%)
- Total dose, dose rate and count rate with simultaneous display readout and automatic differentiation between types of radiation detected
- Down to background level radiation for dose rate
- Down to background level radiation for count rate
- System is used for area air sampling