

## AARDVARK

Army Assured Rapid Detection Validation Asymmetrical Resilient Kinetic – Position Navigation Timing

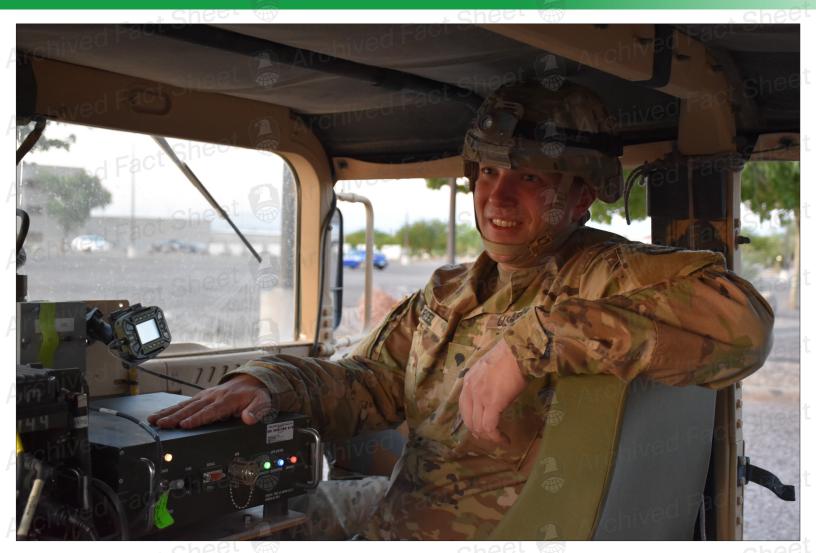


A mobile, low-cost, GPS assurance system that provides timely tactical situational awareness information to Army forces

Army Assured Rapid Detection Validation Asymmetrical Resilient Kinetic – Position Navigation Timing, or AARDVARK-P, is a U.S. Army Space and Missile Defense Command/Army Forces Strategic Command Future Warfare Center prototype. Sensors detect the local quality of Global Positioning System signals of interest that can provide tactically relevant information to Soldiers operating in a position, navigation and timing degraded, disrupted or denied environment. This reinforces PNT situational awareness. A modified mobile sensor (prototype) detects GPS signals. It uses the Multi User Objective System, or MUOS, satellite constellation Wide Band Code Division Multiple Access capability to transport data for local and global users.

- Low power, weight, size
- 🛯 Low cost
- Uses space-based transport for enterprise data dissemination
- Less than one hour of training for full use
- Leverages existing Department of Defense hardware and software
- Potential integration into Army terrestrial systems using line of sight data transport

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Army Assured Rapid Detection Validation Asymmetrical Resilient Kinetic – Position Navigation Timing, or AARDVARK-P, is a government and industry prototyping effort by the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command's Future Warfare Center.

Signal quality and characteristics detected by the AARDVARK-P mobile sensor transit the Multi User Objective System, or MUOS, satellite constellation through Wide Band Code Division Multiple Access. Army radios are used as MUOS satellite terminals where information is gathered and processed for further consumption by users.

Initial risk-reduction, concept validation, and technology verification began in July 2017. AARDVARK-P recently completed an Army Joint Warfighter Assessment Excursion at Fort Bliss, Texas, and will participate in Enterprise Challenge 18 at Fort Huachuca, Arizona, and the Maneuver and Fires Integration Experiment, or MFIX, at Fort Sill, Oklahoma.

The prototyping effort is linked to Army warfighting challenges and capability needs analysis.



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