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## VERTEX USE CASES

### AIR-GROUND LITTORAL JULY 16-17, 2024 | AUSTIN, TEXAS

An exclusive two-day symposium on the state of air-ground littoral — the area between the ground and a few thousand feet above it. Each afternoon breakout sessions create an opportunity for problem owners and potential problem solvers to come together for a live discussion on how to approach air-ground littoral challenges.

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### **COUNTER DRONE**

#### SCALABLE COUNTER DRONE DEFENSE

How can we prevent the enemy from overwhelming our counter-drone systems in a single or multiple attacks?





#### MINIMIZING DRONE OPERATORS' COGNITIVE LOAD

Multiple simultaneous events, crowded airspace, and urban environments can overwhelm and impair operators' efforts to monitor, identify, and engage the enemy's aerial drones. What solutions can reduce an operator's cognitive load?

### **IDENTIFICATION TRACKING AND CLASSIFICATION**

#### IDENTIFICATION AND TRACKING

Formations must detect, track, identify, and prioritize enemy drones quickly and accurately. What current innovations can enhance or optimize these systems to ensure the swift neutralization of enemy drone attacks?





#### **DRONE CLASSIFICATION**

The Army needs tools capable of realtime identification of friendly, enemy, and unknown aerial systems to prevent friendly fire incidents and to engage enemy systems quickly. What next-generation solutions can meet the challenge of drone identification in complex airspaces, and help bring a clearer operating picture to the airground littoral?

### **INFORMATION AVAILABILITY AND ASSURANCE**

#### **ASSURED POSITION DATA**

Positioning data, like GPS, is not always reliable or available on the battlefield. Without accurate positioning data, targeting data will be inaccurate. What solutions can help ensure targeting is precise, even when location data is unreliable?





#### ACCESSING DRONE DATA

Coordinated operations are an integral part of a commander's ability to accomplish the mission. A reliable means of sharing data from multiple drones with soldiers throughout the battlefield is essential to coordinate operations.

### **SURVIVABILITY AND EFFECTIVENESS**

#### CONCEALING EMS SIGNATURES

Protection of drones is important; protection of their operators is critical. How can we mask the electromagnetic signature of ground control stations to maximize Soldier safety and survivability?





#### DEFEATING ELECTRONIC COUNTERMEASURES

Electronic jamming, decoys, and advanced countermeasure systems are effectively disrupting and denying aerial drone operations. How can the US Army bypass or overcome enemy electronic countermeasures?

#### INCREASING DRONE TO OPERATOR RATIO

Increasing the drone:operator ratio can be a key to outperforming the enemy in the air-ground littoral. How can we increase the number of aerial drones that a single crew can operate simultaneously?







#### DISRUPTING DRONE MANUFACTURING

The Army wants to mass produce evolving, low cost, expendable, NDAA compliant aerial drones and/or their components in a way that our adversaries cannot match. What obstacles are preventing industry from doing this today?

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