

# The U.S. Army FUZE xTech Program – xTech|Live at eMerge Americas 2026 Competition Announcement

## I. Background and Purpose

The U.S. Army is seeking agile, adaptive and lethal technology solutions from eligible small and large businesses attending the eMerge Americas Conference & Expo 2026 in Miami Beach, FL, from April 22-24, 2026, to assist with key Army priorities through the xTech|Live at eMerge Americas 2026 competition. This platform offers participants the opportunity to engage with the U.S. Department of War (DoW), compete for prize money and potentially participate in a post-competition demonstration event.

The U.S. Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)) is partnering with the Joint Innovation Outpost (JIOP) and the U.S. Army 101<sup>st</sup> Airborne Division to deliver the xTech|Live at eMerge Americas 2026 competition. Recognizing the need to reach beyond traditional defense partners, the U.S. Army is actively expanding its engagement with the commercial sector through dynamic platforms such as live pitch competitions – creating new opportunities for industry to directly shape the future of national security. This initiative aims to (1) understand the spectrum of ‘world-class’ technologies being developed commercially with potential U.S. DoW applications; (2) actively integrate the sector of non-traditional innovators into the U.S. DoW Science and Technology (S&T) ecosystem; and (3) provide expertise and feedback to accelerate, mature, and transition technologies of interest to the U.S. DoW.

The xTech|Live at eMerge Americas 2026 competition will consist of three (3) rounds with additional opportunities:

- (1) Optional pre-registration with quad chart submission (if selected will secure a guaranteed timeslot for the elevator pitch);
- (2) On-site registration for elevator pitch (on a first-come, first-serve basis); and
- (3) Live pitch event.

The competition will award up to \$600,000 in cash prizes to selected participants. **Up to 36 applicants will be selected on-site at the eMerge Americas Conference & Expo 2026 to present their technology concepts to a live panel of U.S. Army and DoW subject matter experts (SMEs) on either April 23 or 24, 2026.** The U.S. Army intends to select up to six (6) winners to receive a cash prize of \$100,000 each and the opportunity to **demonstrate their technology at “The Week of the Eagles” at Fort Campbell, KY with the 101<sup>st</sup> Airborne Division**, taking place from **May 15-21, 2026**. Additional details on prize structure can be found in Section VII.

**There are two (2) ways to register for xTech|Live at eMerge Americas 2026:**

- (1) **Pre-registration with Quad Chart submission** to potentially secure a guaranteed timeslot for the 60-second elevator pitch; and
- (2) **On-site registration** with no guaranteed timeslot for the 60-second elevator pitch, on a first-come, first-serve basis, subject to the Army’s needs.

All eligible entities, regardless of registration method, will be required to complete a registration form and deliver a **60-second elevator pitch** that clearly outlines their technology concept and how it aligns with one (1) of the four (4) critical focus areas identified. This is required to ensure alignment with the U.S. Army’s operational needs and priorities. Additional details on the registration options can be found in Section IV.

**All presentations will be conducted in front of a public audience.**

In addition to non-dilutive cash prizes, participants may have the opportunity to engage with

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U.S. Army, DoW experts, startups, investors, founders, enterprise leaders, researchers, policymakers, academia, and other innovators from around the world attending the eMerge Americas Conference & Expo 2026, receiving valuable feedback on their innovations.

The xTech|Live at eMerge Americas 2026 is conducted in accordance with 10 U.S.C. § 4025, which authorizes the use of prize competitions to stimulate innovation and identify promising technologies for national security applications. Requirements for competition under 10 U.S.C. § 3201 are satisfied upon completion of the challenge and use of prize authority. As such, this competition serves as a competitive down select mechanism that enables government organizations to engage with winners through a variety of follow-on acquisition pathways, including but not limited to:

- 10 U.S.C. § 4114 – Selection of contractors for prototype projects
- 10 U.S.C. § 4022 – Prototype projects
- 10 U.S.C. § 4023 – Procurement for experimental purposes
- 10 U.S.C. § 4001 – Research and development
- 10 U.S.C. § 4021 – Other Transaction Authority (OTA)
- 10 U.S.C. § 3458 – Authority to acquire innovative commercial products and commercial services using general solicitation competitive procedures
- 15 U.S.C. § 3703 – Technology innovation partnerships
- 15 U.S.C. § 638 – Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

Government organizations are encouraged to consider leveraging these statutory authorities to pursue follow-on awards with companies identified through the xTech competition process. This approach supports rapid technology maturation, accelerates the transition of innovative capabilities to the field, and promotes collaboration with non-traditional and small business performers.

While the authority of this program is 10 U.S.C. § 4025, the xTech|Live at eMerge Americas 2026 competition may generate interest by another U.S. Army, DoW or United States Government (USG) organization for a funding opportunity outside of this program (e.g., submission of a proposal under a Broad Agency Announcement). The interested organization may contact the participant to provide additional information or ask for a request for proposal in a separate solicitation. Winners of the prize competition may have opportunities to submit a separate proposal for further development of their proposed technology solution based on the needs of the Army. The Army may use a contract mechanism of their choice and will notify the participants accordingly.

The Army FUZE xTech Program intends to provide feedback from evaluators to participants following the live pitch event. The purpose of providing this feedback is to help accelerate the transition of the technology to a U.S. Army end-user by providing insight into the best applications for the technology, suggestions for product improvement for U.S. Army use and recommended next steps for development. However, the Government will not respond to inquiries regarding this feedback.

### **II. Eligibility Requirements**

To be eligible for this competition, entities must be a small to large business attending the eMerge Americas Conference & Expo 2026 in Miami Beach, FL.

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Each eligible entity:

- Must be able to obtain a CAGE code (U.S. businesses) and/or NCAGE code (international businesses) to process payments (CAGE codes are not required during registration);
- Shall be incorporated in, and maintain, a primary place of business in the U.S. or a foreign country;
- May not be a U.S. federal or foreign government entity or employ a U.S. federal employee acting within the scope of their employment;
- May not be a company or person controlled by, funded by, or under the jurisdiction or direction of foreign adversaries; and
- Must not be based in a foreign country of concern (FCOC), directly funded by an FCOC-government or FCOC-government-subsidized guidance fund or be under the influence of an FCOC-based government in any way. Failure to meet these requirements will result in ineligibility for award.

The Army FUZE xTech Program will not provide travel or registration funding for eligible entities to attend the eMerge Americas Conference & Expo 2026.

### III. Topics and Problem Statements

The U.S. Army seeks agile, adaptive and lethal capabilities in support of its imperative to “Win at the Pace of Change” across four (4) critical focus areas:

- [Topic 1: Counter-sUAS for Dismounted Forces](#)
- [Topic 2: Stratospheric Effects](#)
- [Topic 3: Reconnaissance and Security for Reduced Formations](#)
- [Topic 4: Rear Area Security](#)

These technologies must enable actionable capabilities that are adaptable, affordable, and capable of rapid integration into operational units, allowing Soldiers to operate with greater awareness, resilience, and agility while accelerating the transition of innovative solutions that reduce risk, support high-tempo operations and preserve battlefield overmatch.

The U.S. Army must innovate to move faster, decide sooner, and act quicker than adversaries. To meet this requirement, we are seeking technologies that are beyond the concept stage – solutions must be mature, integration-ready, and capable of being demonstrated in a realistic operational environment. Solutions should be able to operate in contested, austere, and dynamic environments, integrate with existing DoW programs of record, and be demonstrable within 30 days in exercises involving U.S. and coalition/partner forces. Technologies must be mature, interoperable, and capable of enhancing decision dominance and operational tempo.

This xTech|Live at eMerge Americas 2026 competition is not a venue for early-stage ideas – it’s a platform for deploying near-term capabilities that can immediately support Army experimentation and operational needs.

Topic descriptions can be found in [Appendix A](#) of this solicitation.

### IV. Program Submission and Competition Structure

The xTech|Live at eMerge Americas 2026 competition is voluntary and open to all entities that meet the eligibility requirements listed in Section II. **Only one (1) submission per eligible entity is permitted.**

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All entities must complete a registration form using the Valid Eval platform, which includes the following information: company address, primary contact’s information, CAGE code (optional), prior demonstrations with DoW or allied/partner nations, and previous U.S. Army and DoW awards – including Army SBIR contracts. **New participants must have access to a current, active email address to create an account in Valid Eval.** Email verification is **required** during the registration process.

Failure to meet submission requirements may result in disqualification from participation in the pitch event.

### **xTech|Live at eMerge Americas 2026 Participation Pathways: Pre-Registration and On-site Registration**

#### **Pre-Registration**

All eligible entities interested in pre-registration shall submit a quad chart outlining their technology (Concept of Operations), topic alignment, potential impact on the Army and commercialization readiness. Each quad chart will be evaluated by U.S. Army and DoW experts for the opportunity to receive a guaranteed 60-second elevator pitch time slot at the eMerge Americas Conference & Expo 2026.

Pre-registration information and quad chart submission upload must be received by **5:00 PM ET on April 3, 2026**. Submissions received after the deadline will not be considered for pre-registration. Submissions that are selected for the guaranteed 60-second elevator pitch time slot will be notified by April 17, 2026.

**Please note:** Entities that elect to participate through the pre-registration pathway, are **not permitted** to register again on-site. Each eligible entity may only pursue **one (1)** registration pathway.

**Register now by selecting the xTech|Live at eMerge Americas 2026 competition image at:**  
<https://www.xtech.army.mil/>

Quad charts must be submitted using the template found on the [Valid Eval](#) registration page, “Template\_xTech\_Live\_eMerge\_Americas\_Quad\_Chart.pptx.” **Any quad charts submitted in a format other than those provided by the template will not be reviewed.**

Evaluators will review and score quad charts using the following scoring criteria (further details on each scoring dimension can be found on the xTech|Live at eMerge Americas 2026 competition registration page):

		DEFINITION
<b>CONCEPT OF OPERATIONS</b>	<i>weight 25%</i>	Deliver a clear, concise description of your solution’s concept of operations (CONOPS.) Briefly address what problem(s) you will solve and the advantages of your approach.
<b>TOPIC ALIGNMENT</b>	<i>weight 20%</i>	Argue your solution is aligned to xTech Live at eMerge Americas Topics: Counter-Small Unmanned Aerial Systems (sUAS), Stratospheric Effects, Reconnaissance and Security for Reduced Formations, and Rear Area Security, aligning with Army modernization priorities in Command and Control and Soldier Lethality by advancing technologies that improve

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		situational awareness, force protection and distributed operations.
<b>FIELD DEMO READY</b>	<i>weight 20%</i>	Could you be ready for a field demo from 15-21 May 26 with the U.S. Army 101 <sup>st</sup> Airborne Division? Describe your readiness for such an opportunity, both from a technological perspective and also from an Army regulatory perspective.
<b>ARMY BENEFITS</b>	<i>weight 25%</i>	The Army seeks higher-risk, higher-impact solutions through xTech Live at eMerge Americas not engineering changes or incremental improvements. Use this section to describe your technology's impact and improvement upon the state of the art.
<b>SUBMISSION QUALITY</b>	<i>weight 10%</i>	Prove you write clearly and argue convincingly.

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Upon conclusion of the quad chart evaluation period, the Army FUZE xTech Program will select **up to 32 applicants to receive a guaranteed 60-second elevator pitch time slot that will take place in Room 212 at the Miami Beach Convention Center on April 22, 2026** (*dates, times and locations are subject to change without notice*). The timeframe for the elevator pitch will be provided at the time of notification of selection for the slot.

Pre-registration does not guarantee an entity will be selected to conduct a 60-second elevator pitch or live pitch presentation at the eMerge Americas Conference & Expo 2026.

### On-site Registration

All eligible entities that did not participate in the pre-registration option may register on-site at the Miami Beach Convention Center in the **U.S. Army FUZE xTech Program booth #571 on April 23-24, 2026** (*dates, times and locations are subject to change without notice*). A quad chart submission is not required for on-site registration.

On-site registration will be conducted during the following dates/times:

- **April 23, 2026, 9:30 AM – 3:30 PM ET**
- **April 24, 2026, 9:30 AM – 1:00 PM ET**

### 60-Second Elevator Pitch

Selected pre-registration and on-site registration applicants are required to deliver a **timed 60-second elevator pitch** of their technology concept – addressing one (1) of the four (4) critical focus areas – to a panel of U.S. Army and DoW technical experts. **Follow-up questions may be asked**, and participants must be prepared to provide a **concise 30-second response**.

**Please note:** Selection for pitch presentations is **at the sole discretion of the U.S. Army**. While companies may believe their technology aligns with the stated topic, **final determinations will be made exclusively by the Army** based on the content and clarity of the **60-second elevator pitch** and alignment with the **Army’s priorities as defined in this announcement**.

Elevator pitches will be evaluated and ranked using the following scoring criteria:

		DEFINITION
<b>60 SECOND - PITCH</b>	CONCEPT OF OPERATIONS	Deliver a clear, concise description of your solution's concept of operations (CONOPS.) Briefly address what problem(s) you will solve and the advantages of your approach.
	TOPIC ALIGNMENT	Argue your solution is aligned to xTech Live at eMerge Americas Topics: Counter-Small Unmanned Aerial Systems

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<i>weight 100%</i>		(sUAS), Stratospheric Effects, Reconnaissance and Security for Reduced Formations, and Rear Area Security, aligning with Army modernization priorities in Command and Control and Soldier Lethality by advancing technologies that improve situational awareness, force protection and distributed operations.
	FIELD DEMO READY	Could you be ready for a field demo from 15-21 May 26 with the U.S. Army 101st Airborne Division? Describe your readiness for such an opportunity, both from a technological perspective and also from an Army regulatory perspective.
	ARMY BENEFITS	The Army seeks higher-risk, higher-impact solutions through xTech Live at eMerge Americas not engineering changes or incremental improvements. Use this section to describe your technology's impact and improvement upon the state of the art.
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The Army FUZE xTech Program will **select up to 36 applicants on-site following the elevator pitches** to present their technology concepts to a live panel of U.S. Army, and DoW SMEs. Selected participants will be scheduled for a live pitch presentation time slot on the same day they registered and/or provided an elevator pitch for the competition, with some participants being scheduled to pitch immediately following their 60-second elevator pitch.

### Live Pitch Presentation

**All presentations will be conducted in front of a public audience. By participating in this event, applicants consent to being photographed, recorded, and/or filmed.**

Each selected participant will conduct a timed, **five (5)-minute pitch, followed by a five (5)-minute question and answer session with the judging panel.** Participants may bring physical prototypes and printed materials to support their presentation. No presentation software/applications may be utilized.

**All xTech|Live at eMerge Americas 2026 competition pitches will be evaluated by government employees, designated support contractors, and select industry or venture capital representatives exclusively for the purposes of evaluation and program support.**

Presentations will be evaluated and ranked using the following scoring criteria:

		DEFINITION
<i>weight 20%</i>	<b>SOLUTION</b> SOLUTION DESCRIPTION	Fully describe what you are offering in your solution. Give the audience a solid technical introduction on how your innovation works and what makes it different.
	PRODUCT MATURITY	Please give the audience a clear understanding of your innovation's technical maturity. Support that claim as best you can.
<i>weight 20%</i>	<b>COMPETITIVE ADVANTAGE</b> SOLUTION'S ADVANTAGES	Prove your prospective customers will choose you given limited resources and myriad choices. Have you accounted for indirect substitute products as well as direct competitors?
	DEGREE OF INNOVATION	Prove that your solution is truly innovative. How big a departure from existing technical and/or operational approaches is your solution?

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<b>COMMERCIAL REWARD VS. RISKS</b>	<b>MARKET SHARE</b>	Define the specific commercial market segment your product addresses. Argue that your innovation will capture significant share within this market segment.
	<b>COMPANY'S EDGE</b>	Why will you win? Describe your company's Competitive Edge in the marketplace: Something you do better than anyone else. This might be an intellectual property, unmatched relevant expertise, a novel business model, channel partners, network effects, etc.
<b>POTENTIAL FOR IMPACT</b>	<i>weight 20%</i>	This Dimension is for the Army judges to figure out. It is their job -- not yours!-- to connect the dots and determine how your innovation can impact the Army. If you have direct knowledge of your potential within DoW, please briefly make your case. Otherwise, don't spend your valuable pitch time on this one.
<b>FIELD DEMO READY</b>	<i>weight 20%</i>	Could you be ready for a field demo from May 15-21, 2026 with the U.S. Army 101st Airborne Division? Describe your readiness for such an opportunity, both from a technological perspective and also from an Army regulatory perspective.
<b>PRESENTATION QUALITY</b>	<i>weight 10%</i>	This is a difficult task -- presenting with little to no notice. The Army gets it! Please do your best to effectively get your message across.

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The Army FUZE xTech Program will select **up to six (6) participants** as the final winners of the competition. Winners will be announced live on the **U.S. Army FUZE xTech Program booth stage at the Miami Beach Convention Center, booth 571 on Friday, April 24, 2026, at 3:30 pm ET** and will receive a **cash prize of \$100,000 each**.

All competition participants should plan to be present during the winners announcement.

***\*Dates, times and location are subject to change.***

**Post-Competition**

Final competition winners will have the opportunity to demonstrate their technology to Warfighters and leadership at **“The Week of the Eagles” at Fort Campbell, KY with the 101<sup>st</sup> Airborne Division**, taking place from **May 15-21, 2026**. The Army FUZE xTech Program will not provide travel funding for eligible entities to attend this demonstration event.

**V. Proposed Schedule**

The proposed schedule is outlined below and subject to change without notice.

<b>Date</b>	<b>Activity</b>
<b>March 24 – April 3, 2026</b>	Pre-Registration option open
<b>April 17, 2026</b>	Pre-Registration option selectees notified
<b>April 22, 2026</b>	Selected Pre-Registered Elevator Pitches (9:00 AM – 4:30 PM ET)
<b>April 23, 2026</b>	On-Site Registration (9:30 AM – 3:30 PM ET) Live Technology Pitches (9:30 AM – 4:30 PM ET)
<b>April 24, 2026</b>	On-Site Registration (9:30 AM – 1:00 PM ET) Live Technology Pitches (9:30 AM – 2:00 PM ET)
<b>April 24, 2026</b>	Live Winner Announcement (3:30 PM ET)

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## VI. Prizes and Incentives

Prizes will be offered under 10 U.S.C. §4025 (Prize Competitions). The total prize pool is \$600,000. Other non-monetary incentives are provided through the xTech|Live at eMerge Americas 2026 competition to help industry engage with the U.S. Army.

Phase	Winners	Prize
Live Technology Pitches	Up to 6	\$100,000 each
	Total	\$600,000

## VII. Disclaimers

Registered participants shall be required to assume any and all risks and waive claims against the Federal Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from their participation in this prize competition, whether injury, death, damage, or loss arises through negligence or otherwise.

## VIII. Intellectual Property

The U.S. Army is a strong proponent of deliberate intellectual property (IP) rights and management by the private sector and U.S. DoW. For the xTech|Live at eMerge Americas 2026 competition:

- The U.S. Federal Government may not gain an interest in IP developed by a participant without the written consent of the participant;
- Nothing in this xTech|Live at eMerge Americas 2026 prize competition shall diminish the U.S. Government’s rights in patents, technical data, technical information, computer software, computer databases, and computer software documentation that the U.S. Government had prior to this xTech|Live at eMerge Americas 2026 prize competition, or is entitled to, under any other U.S. Government agreement or contract, or is otherwise entitled to under law; and
- The U.S. Federal Government may negotiate a license for the use of IP developed by a registered participant in the prize competition.

## IX. Point of Contact

The U.S. Army FUZE xTech Program Office  
Office of the Deputy Assistant Secretary of the Army, Research and Technology  
Email: [usarmy.xtech@army.mil](mailto:usarmy.xtech@army.mil)  
Website: <https://www.xtech.army.mil/>

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## Appendix A – Topic Areas Descriptions

### Challenge Summary:

The goal of this prize competition is to identify and field innovative, scalable, and rapidly deployable solutions that address critical capability gaps described in the topic areas above in support of the 101<sup>st</sup> Airborne Division. Selected solutions should demonstrate the potential to enhance situational awareness, strengthen force protection, and improve the effectiveness of distributed operations in contested environments. The competition seeks technologies that are adaptable, affordable, and capable of rapid integration into operational units, enabling Soldiers to operate with greater awareness, resilience, and operational agility. Ultimately, this competition accelerates the identification and transition of innovative capabilities that reduce risk to Soldiers, support high-tempo operations, and help maintain battlefield overmatch.

The Army must innovate to move faster, decide sooner, and act quicker than adversaries. Solutions must operate in contested, austere, and dynamic environments, integrate with existing DoW programs of record, and be demonstrable within 30 days in exercises involving U.S. and coalition/partner forces. Technologies must be mature, interoperable, and capable of enhancing decision dominance and operational tempo.

### Topic Areas:

#### **Topic 1 - Counter-sUAS for Dismounted Forces:**

Small unmanned aerial systems (sUAS) have rapidly proliferated across the modern battlefield and now pose a persistent threat to frontline military units. Adversaries increasingly employ low-cost drones for reconnaissance, targeting, and delivery of kinetic or electronic payloads against maneuver forces. While counter-UAS capabilities exist for fixed sites and high-value assets, dismounted infantry formations currently lack lightweight, effective solutions to detect and defeat sUAS threats during maneuver operations.

The Army seeks innovative solutions that enable small units to detect, track, and neutralize sUAS threats in dynamic and contested environments.

### Desired Capabilities:

Solutions should address the following operational needs:

- **Lightweight Design:** Systems should be suitable for employment by dismounted soldiers without placing excessive physical burden on small-unit formations.
- **Accuracy and Effectiveness:** Solutions should reliably neutralize or destroy sUAS threats within one or two engagements, enabling soldiers to defeat aerial threats during fast-paced combat operations.
- **Ease of Use:** Systems should be intuitive and require minimal training, allowing effective employment under physical and cognitive stress.
- **Adaptability:** Solutions should address a wide range of sUAS threats, including those operating autonomously or in GPS-denied environments, and function in adverse weather or degraded conditions.
- **Interoperability:** Where feasible, solutions should leverage or integrate with equipment already used by maneuver units, including systems such as ABE101 or Purpose Built Attritable Systems (PBAS).

### Key Considerations:

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Solutions should also consider:

- **Cost-Effectiveness:** Affordability and scalability to support widespread deployment across infantry formations.
- **Durability:** Ability to operate reliably in harsh battlefield environments including extreme temperatures, dust, and moisture.
- **Power Efficiency:** Lightweight and efficient power solutions capable of supporting sustained operational use.
- **Safety:** Minimization of collateral risk to friendly forces, civilians, and infrastructure.
- **Rapid Deployment:** Ability to be quickly employed by soldiers in response to emerging aerial threats.

### **Topic 2 - Stratospheric Effects:**

The stratosphere, operating at altitudes between approximately 50,000 and 120,000 feet, represents a largely underutilized domain with significant potential to support military operations. Platforms operating in this environment can provide persistent wide-area coverage and enable operational effects while it remains difficult for adversaries to detect, track, or counter using traditional systems.

Despite these advantages, the Army currently has limited capability to leverage the stratosphere to deliver operational effects in contested environments. Persistent high-altitude systems could support reconnaissance, electronic warfare, precision effects, and the extension of Command-and-Control (C2) networks across large operational areas.

The Army seeks innovative, scalable, and cost-effective solutions capable of operating in the stratosphere to deliver meaningful operational effects. Solutions are not limited to specific platform types such as unmanned aerial systems (UAS) or high-altitude balloons and may include novel approaches to operating in the stratospheric environment.

### **Desired Capabilities:**

Solutions should address the following operational needs:

- **Reconnaissance:** Persistent high-altitude surveillance capable of providing wide-area sensing and intelligence collection.
- **Electronic Warfare:** The ability to jam, disrupt, or degrade adversary communications, radar, or other electronic systems from stratospheric altitudes.
- **Lethal Effects:** Precision strike or payload delivery capabilities capable of engaging targets from stratospheric platforms while minimizing collateral damage.
- **C2 Extension:** Platforms or systems capable of extending communications networks, increasing operational reach, and providing resilient connectivity in denied or degraded environments.

### **Key Considerations:**

Solutions should also consider the following attributes:

- **Stealth and Survivability:** Systems that are difficult for adversaries to detect, track, or counter due to altitude, reduced signatures, or operational profile.
- **Endurance:** Platforms capable of long-duration operations enabling persistent presence over large areas.
- **Modularity:** Flexible payload configurations capable of supporting multiple mission types. Achieving a single effect is acceptable, but modular designs enabling multiple capabilities are preferred.

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- **Cost-Effectiveness:** Scalable and affordable solutions suitable for deployment across multiple operational theaters.
- **Rapid Deployment:** Systems capable of being launched, repositioned, and employed quickly in response to changing mission requirements.

### **Topic 3: Reconnaissance and Security for Reduced Formations:**

Recent force structure changes have reduced the size of reconnaissance elements while maintaining the requirement to conduct both reconnaissance and security operations across large areas. The transition from the Cavalry Squadron to the Multi-Function Reconnaissance Company (MFRC) has reduced available manpower while increasing reliance on technological solutions to maintain situational awareness and early warning.

Current capabilities rely heavily on unmanned aerial systems (UAS), which are limited by weather conditions, endurance, and vulnerability to counter-UAS measures. Additionally, these systems provide sensing but lack the ability to delay or disrupt enemy forces operating within the security zone.

The Army seeks innovative autonomous or semi-autonomous sensing solutions capable of supporting reconnaissance and security operations in contested environments. Solutions should enable persistent sensing, detect and identify threats, and provide commanders with timely awareness while reducing the manpower required to maintain security operations.

### **Desired Capabilities:**

Solutions should address the following operational needs:

- **Autonomous or Semi-Autonomous Operation:** Systems should operate with minimal human intervention while allowing human-in-the-loop decision-making for critical actions when required.
- **All-Weather Capability:** Systems should function effectively in adverse weather conditions including rain, snow, fog, and extreme temperatures.
- **Persistent Sensing and Threat Identification:** Solutions should provide continuous surveillance capable of detecting and identifying vehicles, personnel, or other threats in real time. Integration of sensing technologies such as thermal, radar, acoustic, or other modalities is desirable.
- **Reconnaissance Support:** Systems should enable monitoring of areas of interest, identification of potential threats, and delivery of actionable information to commanders. Operation in GPS-denied or degraded environments is desirable.
- **Delay or Disruption Capability:** Solutions that can delay or disrupt adversary movement—through non-lethal or lethal means—are preferred.
- **Power Efficiency:** Systems should support extended operations through self-sustaining or low-power designs that reduce resupply requirements.

### **Key Considerations:**

Solutions should also consider the following attributes:

- **Durability:** Systems should be capable of operating reliably in harsh environmental conditions including extreme temperatures, dust, and moisture.
- **Rapid Deployment:** Solutions should be easy to deploy and reposition to respond to dynamic operational requirements.
- **Safety and Ethical Considerations:** Systems with kinetic capabilities must include safeguards to prevent unintended engagements and ensure responsible employment.

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## **Topic 4 - Rear Area Security:**

Rear-area units such as field artillery, sustainment, and support formations must maintain local security while simultaneously executing their primary missions. These units often have limited personnel available for dedicated security tasks, forcing soldiers to divide attention between force protection and mission execution. This creates vulnerabilities in contested environments where adversaries may exploit gaps in surveillance or response.

The Army seeks innovative autonomous or semi-autonomous solutions that can provide persistent security and situational awareness for rear-area units. These systems should reduce the manpower required for security tasks while enabling soldiers to focus on their primary operational responsibilities. Solutions should detect, identify, and respond to potential threats with minimal human intervention while operating effectively in dynamic and contested environments.

### **Desired Capabilities:**

Solutions should address the following operational needs:

- **Autonomous or Semi-Autonomous Operation:** Systems should operate with minimal human intervention while allowing human-in-the-loop decision-making for critical actions when required.
- **All-Weather Capability:** Systems should function effectively in adverse weather conditions including rain, snow, fog, and extreme temperatures.
- **Persistent Security and Threat Detection:** Solutions should provide continuous surveillance capable of detecting vehicles, personnel, or other threats in real time.
- **Threat Response Capability:** Solutions capable of autonomously or semi-autonomously responding to detected threats—through non-lethal or lethal means—are preferred.
- **Power Efficiency:** Systems should support sustained operations through self-sustaining or low-power designs that reduce resupply requirements.

### **Key Considerations:**

Solutions should also address the following attributes:

- **Durability:** Systems should operate reliably in harsh environmental conditions including extreme temperatures, dust, and moisture.
- **Rapid Deployment:** Solutions should be easy to deploy and reposition quickly in response to changing mission requirements.
- **Safety and Ethical Considerations:** Systems with kinetic capabilities must include safeguards to prevent unintended engagements and ensure responsible employment.