xTech| RCCTO Innovation Day 3 – Army Strategic Rapid Acquisition (AStRA) Competition

I. Background

The U.S. Army would like to invite interested business entities and academic institutions to participate in the xTech|RCCTO Army Strategic Rapid Acquisition (AStRA) competition (RCCTO Innovation Day 3) being conducted between April and July 2021. AStRA aims to engage with eligible large and small U.S. based companies and organizations and will provide a forum to collaborate with the Army, earn prize money, and provide potential funding opportunities to tackle Army technology gaps for both Program Executive Officer (PEO) for Intelligence Electronic Warfare & Sensors (PEO IEW&S) and PEO Soldier RCCTO.

The U.S. Army's Rapid Capabilities and Critical Technologies Office (RCCTO) has partnered with Assistant Secretary of the Army (Acquisition, Logistics, and Technology) (ASA(ALT)) to deliver this competition to quickly target, acquire, demonstrate, test, and ultimately field promising new technology. This acquisition is modeled after commercial investor "pitch" days and commercial solution openings, and it will be conducted using the Valid Eval tool. RCCTO's AStRA will provide an opportunity for both traditional and nontraditional large and small business entities to submit their innovative technology solutions and prototypes that meet Army's needs. AStRA will also provide Army experts with an opportunity to evaluate these disruptive, innovative approaches and technologies to address critical capabilities required by the U.S. Army, as described in the Problem Statements described below (see Section III).

RCCTO's mission is to rapidly and efficiently research, develop, prototype, test, evaluate, procure, transition, and/or field critical enabling technologies and capabilities that address near-term and mid-term threats. RCCTO executes this mission consistent with the Army's modernization priorities that maximize Soldiers' capabilities to deploy, fight, and win on future battlefields. The U.S. Army faces an ever more lethal and disruptive battlefield requiring quick acquisition of innovative capabilities to prototype and deliver to the warfighter. AStRA is an opportunity for eligible businesses to pitch their novel technology solutions and prototypes directly to the U.S. Army.

II. Purpose:

The purpose of AStRA is to deliver an innovative approach and prototype to compete for an award to accelerate military technology and fill critical technology and operational gaps for the U.S. Army. This acquisition initiative will enable eligible organizations to respond with proposals that clearly articulate their prototype ideas and demonstrations and how they will satisfy the U.S. Army's technology and operational gaps as identified in the Problem Statements below. A further goal is to incentivize industry participation by paying business innovators, at least partially, for some of their proposal preparation efforts and costs. RCCTO is focused on finding mature solutions that could provide combat prototype capability that can be in the hands of Warfighters within a one-to-three-year timeframe. The expected period of performance (POP) for prototypes and demonstrations that address the Problem Statements is approximately 18 to 24 months. RCCTO has a total budget of up to $25M of Budget Activity (BA) 6.5 funding (i.e., targeting System Development and Demonstration) for this acquisition; therefore, proposed solutions must deliver an expected outcome of Technology Readiness Level (TRL) 7+ in order to advise capabilities to Warfighters and be able to transition to a Program of Record. Based on the $25M funding limitation, RCCTO expects to award a series of 1 to 8 contracts or Other Transaction Authority (OTA) agreements, but may award more, less, or none based on funding and mission requirements.

This competition aims to drive business participation and promote entrepreneurship by awarding prize money for eligible companies or organizations to pitch their novel technology solutions and prototypes. This acquisition follows and complies with all applicable laws and federal/DOD acquisition regulations. Any awards under the AStRA program are considered "competitive" in accordance with (IAW) both 10 USC 127 and Federal Acquisition Regulation (FAR) 6.102 (d) ii. To encourage commercial solutions, the acquisition process and awards will also follow the guidance of Class Deviation 2018-O0016 under the auspices of Public Law (PL) 114-329, Section 879 of the 2017 NDAA. Prize monies are authorized and will be "merit-based" and paid IAW 10 USC 2374a (Prizes for Advanced Technology Achievements) and 10 U.S.C. § 2371b (Prototype Projects).

The prize competition executed under the authorities of 10 U.S.C. § 2374a, will consist of multiple steps, or phases, in the selection process, as follows: Phase 1: Five-page Technical White Paper, with an optional 3–5-minute video, and Phase 2: Oral Proposal/Technology Pitch. Phase 1 will be conducted virtually via Valid

Eval, which will be used to identify, score, and rate both large and small business concerns that meet the criteria for award of a prototype project. The highest scored and rated submittals from the Phase 1 White Papers (and optional video) will be invited to participate in the Phase 2 Oral Proposal/Technology Pitch and they will receive a $5,000 prize upon completion of the Phase 2 Oral Proposal/Pitch. Phase 2 pitches must be submitted via Valid Eval. Due to Covid-19, the Phase 2 Oral Proposal may be conducted either in person (limited to 3 people that must follow CDC guidelines) or may be presented remotely via the Valid Eval tool. Winners selected from Phase 2: Oral Proposal/Pitches, will be ranked and the highest rated proposals will be selected to participate in Phase 3: Prototype Proposal, and notified winners will submit a final detailed project proposal to the RCCTO Contracting Center.

III. Problem Statements

AStRA aims to accelerate integration of technology prototypes for crucial Army capability gaps and specific problems into military platforms and will target mature programs/projects with exit TRL of 7+. Submissions will be open to technology solutions that can clearly articulate how the proposal/prototype addresses and solves one of the problem statements outlined below:

PEO IEW&S Problem Statements

1. Topic: Multifunction Antenna for Medium Altitude Air Platform. **Short Title:** Multifunction Antenna

Problem Statement: As the Army modernizes to meet Large Scale Combat Operations (LSCO) and Multi-Domain Operations (MDO), it needs its aerial sensors to do more with less. Multifunction antennas are not a new concept, but with recent technological advances, the Army believes there may be commercial solutions available to expand current capabilities. The Army is looking for a millimeter-wave multifunction RF system to find, fix, and track moving targets using low-cost commercial-off-the-shelf or mature technology on a Size, Weight, and Power (SWaP) constrained platform. The frequency goal is 18-50 GHz while maximizing the number of concurrent operating modes. Primary modes include Air/Ground Moving Target Indication (AMTI/GMTI) radar, Synthetic Aperture Radar (SAR) imaging, Electronic Support/Attack (ES/EA), and ship-to-ship communications. Secondary modes include terrain following and reach-back communications. The design needs to consider both ground and airborne targets.

2. Topic: Enhanced Sensor to Shooter Support with Manpackable Edge Device Enabled by Federated Learning. **Short Title:** Tactical Edge Devices

Problem Statement: The Army is interested in leveraging commercial satellite sensors (Electro-optical, RF, Thermal, etc.) in order to reduce the sensor to shooter timeframe and enhance the warfighters' ability to identify and assess objects of interest. This capability will be utilized in tactical, forward deployed environments as a component of large-scale combat operations in the Tactical Intelligence Targeting Access Node (TITAN) system. As such, it must be light weight, easily maneuverable, and quickly concealable (e.g., in a Manpack form factor). This solution will utilize the most efficient and effective methods for assessing, compiling, and presenting data as actionable information. This will be accomplished by employing both traditional computing and display techniques augmented by artificial intelligence, machine learning, and/or machine vision paired with enhanced visualizations such as 3D, Augmented Reality (AR), or Virtual Reality (VR) as appropriate. As part of this effort, the Army is also interested in Federated Learning (FL). Currently, the Army utilizes centralized machine learning (ML) approaches to train models which require significant upfront investments in data annotation and model training that are often time consuming and expensive. These centralized approaches involve data pipelines that use central servers that host trained models to make predictions. The downside of these approaches is that all the data collected by edge devices/sensors is sent back to the central server for retraining, and subsequently returned back to edge devices. This round-trip limits a model's ability to learn in real-time, increases latency, cost and engineering complexity when applied in Delayed/Disconnected, Intermittently-Connected, Low-Bandwidth (DIL) environments. In contrast, FL, is an approach that updates models at the edge device itself using local data. These locally trained models are then sent from edge devices back to the central server where they are aggregated before a consolidated and improved 'global' model is sent back to the edge devices. Using FL, all data is kept in local storage on edge devices and only model weights are exchanged between edge devices and the central server – enabling models to learn in real-time. This decentralized ML approach significantly reduces latency, network/bandwidth requirements and retraining costs. Additionally, since data is kept on local devices this approach simplifies and reduces data security/privacy risks common across edge systems.

3. Topic: Machine Learning/Artificial Intelligence/Automation for Dynamic Cyber Electromagnetic Activities (CEMA) Mission Planning and Execution at the Tactical Edge. **Short Title:** CEMA Capabilities

Problem Statement: The Army, leveraging Modular Open System Approaches (MOSA) technologies such as Cyber/EW Modular Open Suite of Standards (CMOSS), will be bringing new levels of flexibility to the Battlefield in support of Multi-Domain Operations (MDO). Platforms such as the Tactical Cyber Equipment CMOSS Chassis, Terrestrial Layer System (TLS), and Multi-function Electronic Warfare (MFEW) will be able to deploy disparate and concurrent CEMA capabilities that previously required a greater number of individually sustained systems delivering singular capabilities. As the number of hosted capabilities grows, the ability to dynamically plan and reprogram missions and capabilities based on situational awareness on tactical edge node devices will become readily apparent. The Army is interested in software and algorithms, hardware/software systems, and machine learning/artificial intelligence/automation solutions capable of processing tactical node sensor data in real time to dynamically plan or reprogram disparate CEMA capabilities provide to achieve the desired effects on the Battlefield. The Army is particularly looking for novel solutions capable of executing in resource constrained environments (low SWaP dismounted systems) to provide these capabilities. The Army will also explore proof of concepts and prototype solutions with the goal of incorporating these technologies into the above or future Programs of Record.

PEO Soldier Problem Statements

4. Topic: Energy storage, power management, distribution, and generation capabilities - Novel battery chemistries and technologies. **Short Title:** Novel Batteries

Problem Statement: The single most common piece of feedback any piece of electronic piece of equipment gets is to run for longer. This is especially true for nano Unmanned Aerial Systems (<150g) that are inherently limited in duration due to the physics of flight. The Army is looking for new battery chemistries and technologies that significantly increase the energy density in these small form factors. Batteries should allow for easy swapping into currently fielded systems (but specialized chargers are acceptable). Sufficient cycle life (>150 charge discharge cycles) is a minimum requirement.

5. **Topic:** Data and Processing - Edge processor aided target recognition solutions. **Short Title:** Tactical Edge Processing

Problem Statement: Robotics and Autonomous Systems are changing the character of warfare at an astonishing pace. Small Units are increasingly left behind as advances in computing, sensors and algorithms become burdensome for the dismounted Soldier. The Army is looking for aided target recognition solutions that can operate on edge processors that can identify targets of potential interest including personnel, vehicles, common weapons, and ground hazards. Solutions that can process both electro-optical and infrared imagery (VGA class) and ideally exploit both simultaneously to operate over more operational conditions are most appealing.

6. **Topic:** Low Size, Weight and Power Cross Domain Solution device. **Short Title:** Cross Domain Solution

Problem Statement: Within the digital framework, Fire Supporters End User Device (EUD) operates on the "Fires Net" which is classified Secret. The Maneuver, which the Fire Supporter is supporting and co-located with, also has an EUD but theirs are Secure But Unclassified (SBU). Due to the different classification levels a Cross-Domain Solution (CDS) is required. Currently, due to SWaP limitations, there are limited CDSs echelons above the forward located Maneuver and Fire Support assets. Digital information must travel from an Infantry Soldier, up the Maneuver digital chain until it reaches a CDS, then back down the Fires digital chain until it gets to the Forward Observer. This process results in stale information and requires additional time to clear and process digital Fires.

IV. Program Submission Process:

Register now by selecting the xTech|RCCTO AStRA tile at:

https://www.xtechsearch.army.mil/

The registration information and uploaded submission materials must be received by 5:00PM EST 25 May 2021. Submissions received after this deadline will not be considered.

Eligible entities are invited to submit their Phase 1: Five-page Technical White Paper, with an optional 3–5-minute video, by 5:00 PM EST 25 May 2021,

addressing one of the Problem Statements detailed above in Section III. Eligible organizations may submit one (1) or more submissions per Problem Statement. Participants will be evaluated by a panel of subject matter experts (SMEs) and the white papers (and optional video) that are highly rated will be invited to participate in the Phase 2: Oral Proposal/Technology Pitch. Upon completion of their Phase 2 briefing, they will be awarded a $5,000 prize. The Phase 2: Oral Proposal/Technology Pitch, is the opportunity to present their proposed solution to an Army panel during the pitch event being tentatively held on or around 29 June – 30 June 2021. The highest rated proposals will be selected as winners of the Phase 2: Oral Proposal/Technology Pitch and will be invited to participate in Phase 3, which is a request to submit a more detailed project and cost proposal to prototype and/or demonstrate their proposed technology solutions. Details on the submission requirements along with prize and award structures are listed below in this announcement. All AStRA submissions are treated as company proprietary information and content are disclosed to U.S. Government (USG) employees, military, or designated support contractors only for the purpose of evaluation and program support. The process of this competition will consist of the following four (4) Phases described in greater detail below:

Phase 1 (Five-page Technical White Paper with optional 3–5-minute video): To be considered for prize money and possible award, participants are required to submit a five-page technical white paper detailing their innovative idea and how it solves the problem statement, an optional 3–5-minute video may also be submitted. The white paper must follow the template entitled "Tech White Paper Template" and focus on describing details of the proposed prototype or demonstration, including how it is innovative and how it could substantially increase the scientific state of the art, U.S. Army relevance, and potential impact should also be described.

The Five-page Technical White Paper, with optional 3-5-minute video, shall follow the submission requirements outlined below and on the attached "Tech White Paper Template":

A complete submission will consist of a five-page technical paper (and optional video) that describes the technical description and merits of the innovation. The paper must also include a rough order of magnitude (ROM) price, the proposed schedule and POP, and the TRL at the beginning and conclusion of the effort. The cover page, as outlined in the template, is limited to one (1) page, which will not count against the 5-page count, and must include Company name and address, and CAGE Code (if available); the Technical and Business Points of Contact (POC) to

include: Telephone Numbers and Email Addresses; indicate whether your Company is a nontraditional defense contractor (*see definition in Section XI); if the Company's proposed approach has been proposed to or previously funded by any federal agency, to include SBIR/STTR, please identify each specific agency and all applicable contract/agreement numbers; and a brief abstract (1,500 character limit). Additionally, ensure the submittal identifies the specific problem statement area and adequately describes the proposed contributions and approach. The paper should include the contribution to the requirement and provide a high-level project overview describing how this contribution addresses the problem statement as well as each of the factors identified in the attached "Evaluation Criteria Defined" document, and it must be in the format as outlined in the attached "Tech White Paper Template." Note: Page one (1), Basic Information and Abstract, will not count against the 5-page limit for the technical discussion.

The optional 3-5 minute video should be submitted using a Vimeo link.

Phase 1 submissions must be submitted NLT 5:00 PM/17:00 EST on Tuesday, 25 May 2021, via the xTech-Valid Eval submission portal, at the link below:

https://usg.valideval.com/teams/xtech_rccto_astra/signup

All Phase 1 submissions shall be clearly marked "Company Name – ID3-AStRA 2021-Tech Paper." Only UNCLASSIFIED submittals will be accepted. The Government does not intend to publish any questions or comments received because of this announcement. Telephone inquiries will not be accepted. The evaluation process for Phase 1 will be conducted using technical SME reviewers. Each five-page technical white paper and optional video will be evaluated based on the technical merit, relevance, and ROM cost as it relates to the problem statement and evaluation factors stated herein and attached rather than against other submittals. Submittals submitted in response to this solicitation will be evaluated using the attached evaluation criteria guide and as outlined below:

- The overall scientific and/or technical merits of the proposal (minimum 3 pages).
- How it aligns and proposes to solve the problem statement.
- Technical benefit. Operational Impact. Warfighter Demand
- TRL. Current TRL of the technology and/or product and what is required in testing by the Government for the proposed technology or product to be incorporated into a defense system or military program. The U.S. Army seeks a TRL goal of 7 - 9 for exit and plans to fund selected winners with BA 6.5. (In

circumstances of exceptional technical merit, proposals with a lower TRL rating may be considered for award at a later date.)

- Base technology, prototype objectives, deliverables, activities, artifacts, demonstrations.
- Schedule: The degree to which the proposed POP schedule is achievable within a 36 month or earlier from award.
- ROM Cost: Whether the proposed ROM is realistic and affordable for the proposed technical approach to the extent appropriate. The price is ONLY a ROM for general awareness and for gauging the magnitude of the solution submitted. It is not a request for a formal nor detailed cost proposal. All formal cost proposals will be requested separately at the Government's discretion upon an invitation to provide proposals from RCCTO Contracting Center in accordance with Army acquisition processes.

The Government will endeavor to complete the Phase 1 five-page technical paper evaluations within 20 calendar days of the closing of the submittal period and will provide notification to the organizations. Upon evaluation of the technical paper and optional video, the Government may invite the highest rated/ranked companies/organizations to Phase 2, which is an oral proposal and technical pitch. In Phase 2, companies are invited to pitch and further discuss their proposed concept/technology/solution either in person (following CDC Covid-19 guidelines) or remotely, both methods require submitting via the Valid Eval tool. During Phase 2, the Government may request and/or provide additional information to the Company.

Phase 2 (Oral Proposal/Technology Pitch): If selected in Phase 1, companies/organizations will be invited to Phase 2. They will be awarded the $5,000 prize money when they complete their oral proposal/technology pitch. The Phase 2: Oral Proposal/Technology Pitch is scheduled the week of 28 June 2021, and regardless of in-person or virtual presentation, all submittals must be sent using the Valid Eval virtual platform (firm dates will be scheduled with participants). Each participant, either in-person or remotely, will conduct a live, closed-door presentation of their proposed project/idea/prototype to RCCTO's SME panel consisting of peer, scientific, program, and acquisition representation across the Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policy (DOTMLPF-P) spectrum. The Technology Pitches will be limited to thirty (30) minutes in length (firm) followed by a fifteen (15) minute Question and Answer (Q&A) session with the panel of evaluators and SMEs. The 45-minute timeline will be strictly enforced. If Phase 2 is conducted in-person, the presenters are limited to three (3) people and must adhere to CDC Covid-19

guidelines that are in place on the date of the briefing. During the briefing, companies/organizations should detail/address:

- Technical parameters and details of the proposed effort and how it addresses the problem statement.
- The planned task list and work required to accomplish the objectives of the proposed effort.
- Estimated costs/schedule: provide a more refined and detailed cost/ price and notional schedule for how this concept could be tested within the U.S. Army.
- Exit TRL expected at the conclusion of the contract/agreement POP (Desired is TRL 7+).
- Data Rights Assertions: identify any intellectual property or licenses involved in the effort and associated restrictions on the Government's use of that intellectual property or license terms.
- The Government may also request companies to provide additional information/detail with respect to information provided in the Phase 1 five-page technical whitepaper.

Individual briefs shall be evaluated against the criteria below and on the attached "Evaluation Criteria Defined" sheet and not against other briefs. The Government will aim to complete evaluation of pitches within 3-5 calendar days of the pitch. If their proposed concept/technology/solution is not selected, they will be notified. Pitches shall be evaluated based on the weights and factors in the attached evaluation criteria guide that includes the following:

- Scientific/Technical Merits of the solution that adequately addresses the government need and problem statement and is feasible.
- The capability of the task list or work proposed to conduct the project/prototype and meet the stated objectives.
- Potential contributions to the Army Mission.
- Exit TRL.
- Evaluation of company viability and viability of business solution.
- Company's approach is unique/novel, underutilized and/or innovative to government application.
- The estimated cost/price.
- The notional schedule.
- The potential impact of data rights assertions.

Phase 2 submissions shall be clearly marked "Company Name – ID3-AStRA 2021 – Tech Brief" and contain no classified material.

Phase 3 (Prize Winners/Request for Project Proposal): Upon completion of Phase 2 technical briefings, the Government will pay each participant the $5,000 prize. The top-rated organizations from Phase 2 briefings will be selected to enter Phase 3 for the potential award of a Contract/OTA, and they will be provided with a Request for Project Proposal (RFPP) from the RCCTO Contracting Center that includes a draft Army Statement of Work (SOW) that will be derived from the five-page technical paper, optional video, oral presentation, and any additional information requested from the company. The SOW will be finalized and will form the basis of the work/tasks that will be placed under contract/OTA. Selectees will be invited to submit any additional proposal information or updates, including a final detailed cost volume, to achieve the outcomes of the SOW. RCCTO shall also negotiate final cost/price, schedules, data rights, milestone payment plans, and other appropriate terms and conditions governing the effort/project.

Phase 4 (Basis for Award): Upon a favorable final qualitative and quantitative evaluation of all phases and all submissions, including cost and pricing data, data rights, and available funds, the Government may choose to make an award or multiple awards. Awards will be made to the entities whose proposal is determined to provide the overall best value and technical competency to the Government based on the stated criteria/preferences and availability of funds, this may not necessarily be the proposals offering the lowest cost/price or receiving the highest evaluated rating. Awards will be made using either FAR based contracts or prototype OTAs. The Contracting or Agreements Officer will negotiate directly with the company on the terms and conditions of the award document, including payments, and will execute the contract/OTA on behalf of the Government. Receipt of a RFPP does not guarantee that a company will receive an award and the Government reserves the right, at any point prior to award, to cancel the RFPP. Please be advised, only a Contract or Agreements Officer has the authority to enter into, or modify, a binding agreement on behalf of the Government.

Completion & Follow-on Production:
A contract/OTA is complete upon the written determination of the appropriate approving official for the matter in question that efforts conducted under the contract or OTA: (1) met the key technical goals of a project; (2) satisfied success metrics incorporated into the award document; or (3) accomplished a particularly favorable or unexpected result that justifies the transition to production. Furthermore, successful completion can occur prior to the conclusion of a project to allow the government to transition any aspect of the project determined to provide utility into production while other aspects of the project have yet to be

completed. Any contract/OTA shall contain a provision that sets forth the conditions under which that agreement must be successfully completed.

Upon successful completion of the project under the contract or OTA, the Government and company may negotiate a follow-on production contract or Production OTA agreement, without the need for further competition. Any prototype or technical solution successfully proven through this acquisition process can be transitioned to production. Awards will include language providing for the potential award of a follow-on production contract or agreement as authorized under 10 U.S.C. 2371b(f). Contracts/OTAs will explicitly identify follow-on production contracts/OTAs as a potential outcome of a successful program effort.

V. Non-Government Advisors:

Non-Government advisors shall also be used in the evaluation of all phases of the acquisition program. In these cases, companies will be notified of the name and corporate affiliation of these advisors in the request from the Government to provide a pitch. Companies will be afforded the opportunity to enter into specific non-disclosure agreements (NDAs) with the corporate entity prior to submission of any proposals. Government policy is to treat all submissions as source selection information, and to disclose their contents only for the purpose of evaluation. Restrictive notices notwithstanding, during the evaluation process, submissions may be handled by support contractors for administrative purposes and/or to assist with technical evaluations. All DoD support contractors performing this role are expressly prohibited from performing DoD-sponsored technical research and are bound by appropriate NDAs. The following Non-Government, non-voting advisors may be used in the evaluation of submittals and will have signed NDAs with the Government.

- The MITRE Corporation
- Serco-WBB (Whitney Bradley & Brown, Inc.)
- Modern Technologies Solutions, Inc. (MTSI)
- Radiance Technologies
- Massachusetts Institute of Technology, Lincoln Laboratory (MIT LL)
- Georgia Tech Research Institute (GTRI)

VI. Eligibility Requirements:

Only U.S.-based companies or organizations are considered eligible to participate in this effort. Submissions from entities or organizations that do not have a primary place of business in the U.S. will not be considered for the prize competition.

Each eligible entity:

- Shall be incorporated in, and maintain, a primary place of business in the U.S.
- May not be a U.S. Federal government entity or employ a U.S. Federal employee acting within the scope of their employment.
- Required to register in System for Award Management (SAM) and have or obtain an active CAGE code, DUNS number, and not be on the exclusion lists (debarred or suspended) . Instructions on how to obtain a CAGE code can be found on the RCCTO AStRA registration page,

VII. Program Submission Summary

The process of this competition will consist of the following four (4) Phases:

Phase 1 – All eligible entities are invited to submit a Five-page Technical White Paper (with an optional 3-5-minute video).
Phase 2 – Phase 1 winners will receive an invitation to present a Phase 2 Oral Presentation/Technology Pitch via Valid Eval, either in-person or virtually.
Phase 3 – Phase 2 companies will receive a $5,000 prize upon completion of their oral proposal/technology brief. All Phase 2 submittals will be evaluated, scored, ranked, and the highest rated pitches will be selected to submit a final request for project proposal (RFPP) to enter Phase 4.
Phase 4 – The highest scored and rated companies from the Phase 2 Oral Proposals/Technology Pitches will receive the RFPP from RCCTO Contracting Center to finalize their proposal submittal and SOW for their proposed technology innovations. Awards will be processed based upon a final evaluation of all submittals, agreement to all terms and conditions, and subject to the availability of funds.

The AStRA acquisition is voluntary and open to all entities that meet the eligibility requirements. The registration information and uploaded submission materials for Phase 1 must be received **by 5:00 PM EST on 25 May 2021**. Submissions received after the deadline will not be considered.

Register now by selecting the xTech|RCCTO AStRA tile at:

https://www.xtechsearch.army.mil/

Both the Five-page Technical White Papers (and optional video) and the Oral Proposal/Technology Pitch will be evaluated and ranked using attached evaluation criteria guidelines with the following scoring weights:

- Scientific/Technical Merit – 30%
- Potential Contributions to the Army Mission – 35%
- Technology Readiness Level – 20%
- Schedule Feasibility & Achievability – 5%
- Cost/Price – 10%
- Quality of Submission – Evaluated, but not weighted – 0%

Upon conclusion of the Technical White Paper (and optional video) evaluation period, the Government will make selections of the best technical solutions to receive an invitation to Phase 2: Technology Pitches, tentatively scheduled for the week of 28 June 2021. The organizations that conduct the Phase 2 Technology Pitch will receive the $5,000 prize. The best technical and most highly rated proposals from Phase 2 will be invited to submit final proposal submittals for a final evaluation prior to award.

VIII. Proposed Schedule (Subject to Adjustments)

Date	**Activity**
27 April 2021	Phase 1: Technical White Paper submission period open
25 May 2021	Phase 1: Technical White Paper submission period closed. Due Date for White Papers.
14-16 June 2021	Phase 1: Technical White Paper winners notified and invited to Phase 2
29-30 June 2021	Phase 2: Oral Proposal/Technology Pitch. Organizations that conduct Phase 2 brief will receive $5,000 prize.
July 2021	Phase 3: Technology Pitch winners notified and invited to submit final submittals of proposed project (RFPP)/Supplemental proposal info.
Goal @ 31 July 2021	Phase 4: Final evaluations of submittals and awards of OTA prototype projects or FAR contracts (subject to change and availability of funds).

IX. Disclaimers

Registered participants shall be required to assume any and all risks and waive claims against the Federal Government and its related projects, 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 competition, whether the injury, death, damage, or loss arises through negligence or otherwise.

Participants shall be required to obtain liability insurance or demonstrate financial responsibility, in amounts determined by the Army, for claims by—

- Third parties for death, bodily injury, or property damage, or loss resulting from an activity carried out in connection with participation in this prize competition, with the Federal Government named as an additional insured under the registered participant's insurance policy and registered participants agreeing to indemnify the Federal Government against third party claims for damages arising from or related to prize competition activities; and
- Federal Government for damage or loss to Government property resulting from such an activity.

X. Intellectual Property

The Army is a strong proponent of deliberate intellectual property (IP) rights and management by the private sector and the Department of Defense.

For the AStRA Acquisition:

- Nothing in this competition shall diminish the Government's rights in patents, technical data, technical information, computer software, computer databases, and computer software documentation that the Government had prior to this effort, or is entitled to, under any other Government Agreement or contract, or is otherwise entitled to under law; and
- The Federal Government may negotiate a license for the use of IP developed by a registered participant in the prize competition.

Furthermore, the Government understands that information provided in response to this solicitation is presented in confidence and may contain trade secret or commercial or financial information, and it agrees to protect such information from unauthorized disclosure to the maximum extent permitted or required by Law, to include:

a. 18 USC 1905 (Trade Secrets Act);

b. 18 USC 1831 et seq. (Economic Espionage Act);

c. 5 USC 552(b)(4) (Freedom of Information Act);
d. Executive Order 12600 (Pre-disclosure Notification Procedures for Confidential Commercial Information); and
e. Any other statute, regulation, or requirement applicable to Government employees.

XI. Notes & Definitions

The Government will not reimburse participants for any costs associated with preparing or submitting a response to this prize competition. Participation in the xTech-RCCTO AStRA competition is voluntary. This notice/competition and/or the information presented herein will not obligate the Government in any manner. The posted information is provided for planning purposes only and does not constitute a Request for Proposal.

*Non-traditional defense contractor is defined in 10 U.S.C. § 2302(9) as an entity that is not currently performing and has not performed, for at least the one-year period preceding the solicitation of sources by the Department of Defense for the procurement or transaction, any contract or subcontract for the Department of Defense that is subject to full coverage under the cost accounting standards prescribed pursuant to section 1502 of title 41 and the regulations implementing such section.

** Prototype projects are defined as submissions that may considerably improve Army platforms, Army weapons systems, or Army support systems. A prototype project can generally be described as a preliminary pilot, test, evaluation, demonstration, or agile development activity used to evaluate the technical or manufacturing feasibility or military utility of a particular technology, process, concept, end item, effect, or other discrete feature. Prototype projects may include systems, subsystems, components, materials, methodology, technology, or processes. By way of illustration, a prototype project may involve: a proof of concept; a pilot; a novel application of commercial technologies for defense purposes; a creation, design, development, demonstration of technical or operational utility; or combinations of the foregoing, related to a prototype.

Feedback, in the form of scores and ratings, shall be provided to all participants at the end of each phase of the competition. The purpose of providing feedback is to help the participants understand their strengths and weaknesses of their proposed ideas for the technology within the Army. The Government will not respond to questions or inquiries regarding the provided feedback.

XII. Points of Contact

The joint xTech Program Office & RCCTO, Advanced Concepts & Experimentation Office and the Office of the Deputy Assistant Secretary of the Army, Research and Technology
Email: usarmy.pentagon.hqda-asa-alt.mbx.xtechsearch@mail.mil
Website: https://www.xtechsearch.army.mil

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