Expedient Basing Challenge Focus Areas 4-5
#expedientbasing

BLUF

NOTE: This is an update to the original call posted 07.11.2023 and is updated to extend only the validity date of the submissions that made it to Spiral 2. Government Contracting Terms and Conditions section is updated to add a bullet at the end of this section which states, ". . . for a period of 18 months after Showcase date."

The United States Air Force (USAF) is seeking modern capabilities to establish distributed operations in austere environments around the world where it must rapidly respond to humanitarian crises, natural disasters, and/or military activity.

By uncovering and advancing solutions that are lean, versatile, scalable, sustainable, resilient, and interoperable between forces, the Expedient Basing Challenge aims to significantly reduce USAF response times from weeks or months to just hours or days.

OVERVIEW

The United States Air Force (USAF) is seeking modern capabilities to rapidly establish distributed operations in remote and isolated environments around the world. This effort addresses an important aspect of Agile Combat Employment (ACE), a scheme of maneuver that shifts operations from centralized, physical infrastructures to a network of smaller, dispersed locations by providing flexibility for friendly forces and complicating circumstances for adversaries. **Before proceeding further, watch <u>this video</u> to learn more about the ACE concept and how it relates to Expedient Basing**.

The USAF recognizes that future USAF operating locations will need to be lean, versatile, scalable, sustainable, resilient, and interoperable. The Expedient Basing Challenge aims to significantly reduce response times in the beddown of friendly forces at remote and isolated locations without degradation of operational capacity pr the capability to execute missions.

We encourage participants in this Expedient Basing Challenge to offer technological and innovative solutions for experimentation and/or feasibility study, as well as developed solutions. In either case, we are interested in understanding all underlying technologies upon which a solution relies.

FOCUS AREAS (4-5)

- **Base Infrastructure**
- **Integrated Base Security, Response & Recovery**

OBJECTIVES

The objectives of the **Expedient Basing Challenge** are twofold:

1. The **primary objective** is to demonstrate the viability of solutions that streamline and expedite the planning and setup of operating locations in austere locations.

2. The **secondary objective** is to accelerate technology development that could lead to operational adoption of advanced capabilities by the U.S. Government.

CONTEXT

The USAF's ability to operate at the edge of a battle area efficiently and effectively is essential to its superiority. Forward Operating Bases (FOBs) and Contingency Locations (CLs) or Hubs and Spokes, are located at or near the edge, and act as non-enduring locations to sustain operations conducted for the protection of national interests.

For this Expedient Basing Challenge, we are seeking net-new solutions, enhancements to existing solutions, and the development of multi-capable solutions. Within each focus area, the USAF has identified a set of desired capabilities. Please note that these are not requirements, but are offered to clarify USAF intent. Additionally, the list of desirable capabilities provided here should not be considered comprehensive. Participants may submit one or more solutions for each focus area.

FOCUS AREA DESCRIPTIONS

Based on internal knowledge and market research conducted across the DoD, industry, and academia, **the USAF has identified two focus areas** to bring structure to the crowdsourcing process for this Expedient Basing Challenge:

Focus Area 4: Base Infrastructure

The development of bare bases and the beddown of military units and weapons systems in austere, remote and isolated locations is crucial to the Agile Combat Employment (ACE) scheme of maneuver. Moreover, USAF engineers are increasingly tasked to develop and support operating locations for joint, combined, and multinational operations. Efficient planning and use of available resources to erect, construct, install, and repair expedient facilities and critical infrastructure is essential in meeting initial mission requirements.

Development of distributed operations at austere locations in a hub and spoke configuration consists of many tasks and is performed with one goal in mind: to quickly set up infrastructure to support military operations and other contingency missions. Therefore, efforts must be focused and concentrated on the rapid establishment of facilities, structures, and services that help bring about an initial operational capability.

Due to the sometimes austere and remote locations in which the USAF must operate, resources may be very limited. For this reason, these forward operating locations (i.e. hubs and spokes) must be resilient and as self-sustaining as feasibly allowed with a light and agile logistical footprint.

Core to base infrastructure are the systems developed to be easily transportable, modular and can be quickly assembled and disassembled; and, the development of reliable supply chains that can rapidly deliver the necessary resources either for storage or immediate use at various remote locations.

The ACE scheme of maneuver is a key element of the USAF's doctrine, which relies heavily on hub and spoke operations' base infrastructure. Because mission durations, force sizes, and environments can vary considerably, the USAF focuses on developing lightweight, durable, mobile, scalable, and flexible systems that can be rapidly deployed and operated.

Capabilities and/or technologies of interest include, but are not limited to:

- **Electrical Systems:** Efficient and reliable power generation and electrical distribution systems are essential in supporting operations in austere, remote and isolated locations. This includes utilizing various power generation sources, such as generators and renewable energy systems, to ensure continuous and redundant power supplies for critical operations. For enhanced agility and rapid deployment, these systems should be lighter, smaller, and easily transportable.
    - **Key capabilities:**
        - EMP-hardened (preferred, not required)
        - Improved power density and quality
        - Modular and scalable
        - Interoperable and field repairable
        - Durable materials and structures that protect against corrosion, humidity, and UV while in pre-positioned storage and while deployed
    - **Technologies of interest, including but not limited to:**
        - Data integration of processes and software (IoT)

        - **Power generation:**
            - Multi-fuel, high-density power generators
            - Turbines
            - Mobile nuclear reactors
            - Proven power generation from renewable energy sources (wind, solar, hydro, etc.)
            - Fuel cells
            - Energy generation from waste (incineration, processing, etc.)
        - **Storage:**
            - Batteries
        - **Distribution:**
            - Distributed wireless power
            - Mesh power grid
            - Increased microgrid reliability
            - Individualized distribution

- **Mechanical Systems:** HVAC systems, potable water storage and distribution, wastewater treatment and/or removal/disposal systems, and fuels storage/distribution systems are required for maintaining the operational capability and sustainability of bases in austere, remote and isolated environments. For enhanced agility and rapid deployment, these systems should be lighter, smaller, and easily transportable.

    - **Key capabilities:**
        - Modular and scalable
        - Interoperable and field repairable
        - Durable materials and structures while in pre-positioned storage, and while deployed (against corrosion, humidity, and UV)
        - Reusing, repurposing, recycling and/or disposing of water, waste and hazmat materials in an environmentally friendly manner
        - EMP-hardened (preferred, not required)
    - **Technologies of interest, including but not limited to:**
        - Data integration of processes and software (IoT)
        - **HVAC:**
            - Reduced power consumption
            - Water/evaporative cooling systems
            - Self-sustaining cryo (cold) body case/chilling crates
            - Advanced systems (i.e., self-cooling)
        - **Fresh water production, storage, and distribution:**
            - Water production from air

            - Integrated water safety/testing
            - Personal water filtration systems
            - Desalination technologies that are low maintenance and mobile, easy to maintain, meet production needs and are easy to use
            - Smaller, more streamlined systems
            - Collapsible tanks/bladders/storage
        - **Wastewater storage and treatment:**
            - Smaller, more streamlined systems
            - Reduced power consumption
            - Modular to tailor based on need
            - Evaporation beds
            - Gray water reclamation (i.e., closed loop system)
        - **Fuel storage and distribution:**
            - "Gas and go" mindset
            - Smaller, more streamlined systems designed for various and extreme temperature environments
            - Collapsible tanks/bladders/storage

- **Horizontal Systems, Vertical Systems, & Construction Methods:** This area focuses on the establishment of facilities, structures, and services that bring about an initial operational capability. In harsh environments and isolated locations, it is important to have adaptable and resilient construction methods that can quickly establish runways, roads, and facilities to support operations.
    - **Key capabilities:**
        - Weather/climate resistant and durable materials that protect against corrosion, humidity, and UV while deployed or in pre-positioned storage
        - Modular
        - Ease of installation/construction

    - **Technologies of interest, including but not limited to:**
        - **Horizontal systems:**
            - Remote piloted or autonomous machinery and equipment (rapid clearing, site assessment, etc.)
            - Operational sustainment against overgrowth
            - Integrated project management capability
            - Data integration of processes and software (IoT)
            - Airfield assessment and construction
                - Drone, light detection and ranging (LIDAR), advanced

AI planning tools, digital tools
- Mobile capabilities for testing soils and materials
- Use of indigenous materials versus shipping raw materials to islands or other remote locations
- Innovative polymers and binders

- **Vertical systems:**
  - Durable and environmentally-resistant materials that protect against corrosion, humidity, and UV
  - Ballistic, blast/fragmentation effect and overpressure protection traits
  - 3D-printed technologies for structures, tools, consumables, etc.
  - Inflatable concrete structures
  - Insulated, composite shelters
  - Prefabricated for ease of installation with simple tools
  - Integrated project management capability
  - Data integration of processes and software (IoT)
  - Secured IoT monitoring and alerting systems

- **Expedient Camouflage, Concealment, Deception, & Hardening:** To enhance operational security and survivability, the USAF employs techniques that provide camouflage, concealment, deception, and hardening capabilities to confuse adversary tactics and protect against physical and digital/cyber-attacks for the protection of personnel, equipment, vehicles and aircraft.
  - **Key capabilities:**
    - Reduce/mask electromagnetic (EM) signatures
    - Duplicate the presence of certain resources in multiple, dispersed locations to confuse adversaries
    - Decoys
    - Protect against electro-optical (EO)
    - Thermal
    - Cyber
    - Expedient hardening and/or blast/fragmentation with synthetic materials
  - **Technologies of interest, including but not limited to:**
    - Expedient asset protection systems
    - Smart decoys
    - Multispectral concealment
    - Ballistics protection
    - Personnel bunkers

        - Low observables

- **Protection Against Environmental Factors:** Solutions that provide environmental protection in austere and isolated environments for humans, structures, equipment, vehicles, and aircraft ensuring the longevity and operational readiness of assets.
    - **Environmental factors considered:**
        - Wind and sand
        - Rain and flooding
        - Combination of heat, humidity, and UV
        - Salinity
        - Seismic
        - Cold
        - Pests and rodents
    - **Key capabilities:**
        - Anti-corrosive containerization
        - Moisture control
        - Proactive remote monitoring
        - Advanced asset management system
        - High winds survivability
        - Wildlife and pest control
    - **Technologies of interest, including but not limited to:**
        - Advanced nanotech coatings and polymer materials
        - Active and interconnected suite of sensors for equipment and humans
        - Data integration of processes and software (IoT)
        - Semi-autonomous washing and cleaning
        - Temperature management for humans (high performance textiles)
        - Pest management services and solutions

Focus Area 5: Integrated Base Security, Response & Recovery

The unpredictable nature of man-made and natural disasters, contingency operations, and wartime operations all require a great degree of flexibility in preparing for, responding to, and recovering from each situation. Therefore, engineer units must maintain contingency response and recovery capabilities to restore operations, save lives, mitigate human suffering, and minimize damage during and after a crisis incident on or near an air base.

Immediately after a disaster, attack, or other crisis, engineers typically operate in a reactionary mode to rapidly eliminate life-threatening hazards rapidly. In later phases of the recovery, engineers begin a more deliberate effort to identify and quantify the damage, assign repair priorities, and determine an appropriate plan for recovery.

The elements of base response and recovery are performed with one goal in mind - to quickly support mission-specific operations. Due to the austere and isolated locations in which the USAF must operate, resources may be very limited. For this reason, base security, response and recovery capabilities must be resilient and as self-sustaining as feasibly allowed, with a light and agile logistical footprint.

Capabilities and/or technologies of interest include, but are not limited to:

- **Explosive Hazard Mitigation:** In contingent locations, there may be explosive hazards present, which may deny the use of the airfield. Recovery efforts involve the remote mass mechanical clearance of ordnance, locating and accessing subsurface ordnance, and mitigation of explosive hazards so as to resume safe operations on the airfield.
    - **Key capabilities:**
        - Before-and-after assessment of the surface and subsurface
        - Identifying size and classification of ordnance
        - Mitigation workflow of explosive ordnance disposal
        - Ease of use
    - **Technologies of interest, including but not limited to:**
        - sUAS drones, robotics, and sensors
        - Android Team Awareness Kit (ATAK) or other C4I tactical level systems
        - Edge site processing
        - Advanced artificial intelligence
        - Lower size, weight, and power laser

- **Expedient Facility & Utility Repairs:** The USAF prioritizes the rapid repair and restoration of critical facility and utility systems including power, water, and fuel systems. These repairs are essential for sustaining base operations and ensuring the well-being of personnel in harsh and remote environments.
    - **Key capabilities:**
        - Automated and remote collection and prioritization of systems condition
        - Multi-modal connections
        - Data validation
        - Ease of setup and use
        - Artificial intelligence/machine learning for product lifecycle (repair/replace)
        - Supply chain management
    - **Technologies of interest, including but not limited to:**
        - Digital twin
        - Blockchain
        - Multi-channel communications capabilities (onsite and remote)
        - Buffered collection
        - Rules-based task list
        - Automated trigger for logistics and maintenance
        - Disposable systems
        - Expedient methods and processes to include materials for repairing facilities or utilities
        - UAV delivery

- **Damage Assessment:** Rapid assessment of airfield and air base infrastructure is essential to determine the extent of damage, in addition to identifying the minimum airfield operating strip (MAOS) required to restore operational capabilities. This allows for quick decision-making and prioritization of recovery efforts by senior leaders to maintain airfield functionality.
    - **Key capabilities:**
        - Data collection, processing, and analysis to identify MAOS, order of repairs, and travel routes to repair site
        - Ease of use and training
    - **Technologies of interest, including but not limited to:**
        - Multi-spectrum mission data collection
        - Stand-alone data processing
        - Self-contained rapid damage assessment system
        - Human interface platform
        - Deepfake data for artificial intelligence training

- **Airfield Damage Repair (ADR):** When an airfield receives crater damages, rapid recovery efforts are required to return the airfield to operations. These efforts involve repairing and restoring the damaged sections of the airfield to ensure safe and efficient aircraft operations.
    - **Key capabilities:**
        - Repair the operational surface
        - Logistics scalability, sustainment and resupply
        - Capping methods
        - Spall repair methods
        - Scalable and modular expeditionary ADR equipment and vehicles
    - **Technologies of interest, including but not limited to:**
        - Integrated dataset to tie damage assessment to repair prioritizations
        - Pre-positioning of assets
        - Anchors on fiber reinforced polymer (FRP) with asphalt
        - Use of compact track loaders (CTL) or other smaller, lighter, leaner, and more versatile equipment to backfill and clean
        - Remote start and monitoring of equipment
        - Lighter, leaner and versatile equipment/vehicle kits
        - Expedient capping solutions/process
        - Spall repair

- **Expedient & Resilient Airfield Systems Recovery:** This area focuses on the recovery and restoration of essential airfield systems such as airfield lighting, aircraft arresting systems, and pavement markings. These systems are vital for maintaining safe and efficient airfield operations in remote and isolated locations.
    - **Key capabilities:**
        - Scalable and modular lighting system
        - Virtual heads up display
        - Mobile and/or self-propelled
        - Aircraft arresting systems
        - Marking and lighting of airfield
        - Scalable and modular airfield lighting systems
    - **Technologies of interest, including but not limited to:**
        - Multi-functional power and distribution
        - Automated Precision Approach Path Indicator (PAPI) certification
        - RF signature generator for military deception
        - Remote tele-engineering to support untrained installers
        - Expedient modular airfield lighting system and relocatable
        - Expedient airfield marking system

        - Mobile aircraft arresting systems

- **Protection, Security, & Defense:** The USAF employs measures to protect, secure, and defend the base. This includes countering small Unmanned Aircraft Systems (sUAS), ensuring shoreline security, and implementing physical security measures to safeguard personnel, assets, and operations.
    - **Key capabilities:**
        - Situational awareness (detect, verify, respond)
        - Supply chain logistics and deployability
        - Tactical Assault Kit (TAK) integration
        - Protection (cyber, perimeter)
        - Secure staging/secure the base
        - Survivable communications/mesh networking
        - Multi-use/multi-modal transport packages
        - Ease of use
    - **Technologies of interest, including but not limited to:**
        - Real-time response
        - Fiber optic ground and maritime sensors/sensing
        - Kill switch solutions that provide the ability to clear electronic equipment or destroy equipment if it must be left behind
        - Able to be palletized for aerial transport and lockable; containers should be resistant to environmental factors such as humidity, water, condensation, etc.
        - Body-worn solution/device such as uniforms, body armor, and load carrying equipment
        - Passive air surveillance
        - Autonomous/semi-autonomous robotics
        - Directed energy
        - Block chain enabled server storage
        - Advanced screening for base access (biometrics, biokinetics)
        - Counter UAS and swarm (kinetic and electronic wave) solutions
        - Secure/unsecure mesh network
        - Multispectral camouflage

WHO SHOULD PARTICIPATE

The USAF welcomes involvement from individuals or teams in industry, academia, investing, and government. We encourage working with partners or teams to meet or exceed the evaluation criteria.

What you stand to gain:

- Potential to receive funding for concept development and/or rapid prototyping and prospective further development of your solution within the USAF
- Potential long-term contract or agreement and continuing business relationships with the USAF and other government agencies
- Chance to inform and shape our nation's elite warfighting capability positively impacting our Airmen, and creating a more resilient and mission-ready military force
- Opportunity for teaming and technology development
- Potential invitation to attend the AFWERX Challenge Showcase event and network with peers, the USAF and DoD, customers, and other investors
- Official recognition for you and your organization, if selected, through publication on internal and external USAF communication channels

PROCEDURES

The submission and evaluation process evolves over three spirals.

1. Spiral 1: Offerors submit the web form and optional supplemental document. The Government will evaluate solution submissions against the criteria within this Call. Selected offerors will be invited to Spiral 2.
2. Spiral 2: Selected offerors will be invited to provide additional information to elaborate on and discuss their proposed concept/technology/solution. The Government will evaluate oral demonstrations against the criteria within this Call. Selected offerors will be invited to submit proposals in Spiral 3.
3. Spiral 3: Offerors whose solution submission and oral demonstration are evaluated and determined to hold sufficient technical merit will be invited to submit a full written proposal. Instructions and evaluation criteria will be provided in the Spiral 3 Request for Commercial Solution Proposal.

SUBMISSION OF SOLUTION FOR SPIRAL 1:

1. Participation in this challenge requires a completed submission using the www.afwerxchallenge.com website located at the following this link.

   The form includes the following fields:
   - **Solution title**: Provide the concise name of your solution.
   - **Executive summary**: Explain your solution in 500 characters or less.
   - **Solution description**: Explain in detail how your solution tackles the stated problem.
   - **Value proposition**: Describe how your solution can benefit the USAF.
   - **Inputs and outputs:** List the inputs and outputs that your solution needs and produces (if applicable) so an integration effort can more easily be defined.
   - **Solution maturity**: Indicate the development stage of your proposed solution, e.g., idea, prototype/experiment, complete application (has been tested and is ready for launch), or commercially available.
   - **Proof of concept:** Can you provide a test or proof of concept (PoC) for your solution, prior to potential implementation at scale? If yes, provide the timeline required to complete the test or PoC.
   - **Implementation**: Provide the timeline required to implement your solution, including potential lead time for parts order/shipment.
   - **Keywords**: Specify any descriptive keywords that may be useful for a search related to your solution.

   Note:

   - It's possible to create a private draft during the submission period by selecting "Save As Draft." You can edit and then launch the public submission when you're ready.
   - Public submissions can be edited until the submission deadline.
   - Participants can attach private files that are only made visible to the evaluation team.

2. Solution submissions shall contain the following:

   a. ***Offeror Information****:* Provide point of contact name, email address, phone, and address. (This does not count against the five-page limit.)

   b. ***Executive Summary***: Provide an executive summary of the technology. (This *does* count against the five-page limit.)

   c. ***Technology Concept:*** Show and/or describe how your proposed solution or potential new capabilities fulfill requirements, close capability

gaps, or provide potential technological advancements in support of the Challenge mission focus area to provide capabilities that aid in the observation, orientation, decision, and action across all domains. Describe the unique aspects of your technology and the proposed work as it relates to the applicable Challenge mission focus area, including key attributes such as data sources, automation, user experience, cyber security, and ability to integrate with other systems. Identify whether the effort includes the pilot or demonstration of existing commercial technology (identified as commercially ready and viable technology), or the further development of commercial technology for potential defense application.

d. ***Feasibility & Scalability:*** If development or adaptation is proposed, identify a suggested path to mature the technology. Identify aspects of your proposal, to include data and software, which may be considered proprietary. Identify the ability of the solution to scale rapidly across USAF and other agencies, and whether the proposed solution can provide a reasonable management approach for technical delivery, schedule, and cost.

e. ***Warfighter impact:*** Provide an assessment of how the solution brings value to the warfighter.

f. ***Offeror Responsibility & Solution Viability:*** Provide a brief overview of the offeror—a summary of current experience, qualifications, and resources or ability to obtain them in accordance with FAR Part Subpart 9.4, e.g., summary of the top line (gross sales/revenues) and balance sheet. Provide a summary of product development, manufacturing (if relevant), and logistics strategy to the best extent possible.

g. Does your proposed solution or potential new capabilities currently have an authority to operate (ATO)?

h. Data Rights Assertions for Commercial Items (if applicable).

i. Identify any Intellectual Property (IP) in the technology, all relevant owners and licensors, and associated restrictions on Government use.

j. The Due Date for Spiral 1 is 8/21/2023.

EVALUATION CRITERIA FOR SPIRAL 1:

A designated team of Government personnel will evaluate Challenge submissions to determine which solutions should advance to Spiral 2. The Government will use the following evaluation criteria, giving each item equal importance:

- **Relevance:** Demonstrates alignment with the Challenge purpose and focus areas.
- **Technical merit:** Product/technology solution works as stated in support of mission objectives and demonstrates feasibility.
- **Innovation:** Demonstrates a novel, unique, or previously underutilized approach when considered against the Government application.
- **Integration potential:** Functionality as part of a system.
- **Technical readiness speed:** Reasonable timeline for solution to be delivered by 2026.
- **Scalability:** Meets or exceeds the needs of mission profiles for broad impact across the USAF.
- **Impact:** Expected benefits to the USAF and Airmen.

ORAL DEMONSTRATION CONTENT FOR SPIRAL 2:

Offerors invited to participate in Spiral 2 shall address the following:

a. Expanded details of the potential solution that was provided in the Spiral 1 solution submission.

b. A live demonstration of the potential solution utilizing relevant and/or analogous data.

c. Should the solution require assistance with testing, validation, and/or capacity for scaling within the USAF, identification of the magnitude, type, and scale of assistance required for follow-on activities.

d. Rough Order of Magnitude (i.e., bottom-line estimated price) of the solution provided in Spiral 1.

e. The solution submission will identify all Intellectual Property (IP) in the technology, all owners and licensors thereof, and associated restrictions on the Government's use of that IP.

f. The Oral Brief should be able to address detailed Q&A from DoD stakeholders, including both technical and operational subject matter experts.

g. The purpose of the showcase is to provide networking opportunities with Government/non-Government communities interested in solutions. Information presented will only impact evaluations if content at the showcase is not consistent with content of solutions submission and oral demonstrations.

Each offeror will be allowed a specified amount of time for their oral demonstration. The timeframe will include time for Q&A.

EVALUATION CRITERIA FOR SPIRAL 2:

Oral Presentation evaluation criteria is listed below, with each item of equal importance.

a. Responsiveness of the solution in addressing the Challenge mission focus areas.

b. The Technical Merit of the proposed solution adequately addresses the Challenge mission focus area and demonstrates feasibility for the Government to pursue the proposed solution.

c. The Rough Order of Magnitude will be considered for affordability determinations only.

NOTE: Spiral 2 demonstrations may be recorded for Government evaluation purposes.

COMMERCIAL SOLUTION PROPOSAL (CSP) CONTENT AND EVALUATION FOR SPIRAL 3:

Offerors invited to participate in Spiral 3 will be provided a CSP, which will detail instructions to offerors and explain the basis for evaluation.

WHAT'S NEXT

The submission period opens on 7/12/2023 and ends on 8/21/2023 at 4:59 PM Pacific Time.

- Submissions shall be made at afwerxchallenge.com, and all required fields must be completed in order to be accepted.
- Communication to all successful and unsuccessful Challenge participants will be sent via email.
- The showcase will take place as an online or in-person event. Offerors selected to participate will receive notification via email. The showcase is an excellent opportunity to meet individuals, teams, and enterprises selected to attend. Another evaluation will be completed at the showcase via private pitches and public discussions with evaluators on the virtual showcase website.
- All dates are subject to change. We'll communicate any changes via sam.gov and afwerxchallenge.com.

GOVERNMENT CONTRACTING TERMS & CONDITIONS

Future contracting opportunities related to the **Expedient Basing Challenge** will be posted to any/all Government points of entry such as sam.gov, sbir.gov, afwerxchallenge.com, etc.

- This Call falls under Commercial Solutions Opening (CSO) FA2280-23-S-C001. A copy of the CSO can be obtained by searching for the FA2280-23-S-C001 at sam.gov. This Call and subsequent awards shall comply with all requirements of the CSO.
- In the event of a conflict between information contained on afwerxchallenge.com and the USAF solicitation on sam.gov, the CSO on sam.gov shall control.
- The announcement of AFWERX events, considered to possess high potential for further efforts, may be made at afwerxchallenge.com. FAR-based contracting instruments, Other Transaction (OT) for Prototype Projects 10 USC 4022, to include follow-on production OTs, and Prize Competitions 15 USC 4025 may support the accomplishment of these events.
- All announcements made at both sam.gov (formerly fbo.gov) and afwerxchallenge.com website(s) are considered to satisfy the reasonable effort to obtain competition per 15 USC 3719 (e) and 10 USC 4022 (b)(2).
- Possibilities exist to work with existing prime contractors on USAF contracts through submissions provided in response to this Challenge.
- All FAR-based actions will follow post-award synopsis procedures per FAR subpart 5.3 accordingly.

- Subject Matter Experts advising the Government team may include firms contracted by other participating DoD branches (U.S. Army, U.S. Marine Corps, U.S. Navy, and U.S. Coast Guard). These firms are contracted to provide advisory and assistance services to USAF or other DoD branches. These firms are an important supporting element in ongoing efforts; however, they may be asked to provide limited advice on potential solutions. It is the responsibility of participating firms to protect their intellectual property or other proprietary information as necessary.
- Notice to Offeror(s): The Government reserves the right to cancel this open call, either before or after the closing date. If the Government cancels this open call, the Government has no obligation to reimburse an offeror for any costs.
- The submission deadline is noted in the section labeled "What's Next." The submission deadline is controlled by the AFWERX Challenge server time and is not dictated by local participant computer time. AFWERX Challenge shall not be held responsible for discrepancies in computer times, delays due to internet connectivity, server performance due to large numbers of participants utilizing the software simultaneously, or other factors outside of AFWERX Challenge's control. No exceptions will be made for late submissions regardless of the reason. It is advisable to complete submissions well in advance of the submission deadline.
- This Call may result in the award of prototype projects, which include not only commercially available technologies fueled by commercial or strategic investment, but also concept demonstrations, pilots, and agile development activities that can incrementally improve commercial technologies, existing Government-owned capabilities, and/or concepts for broad defense and/or public application(s). The Government reserves the right to award a FAR Part 12 procurement contract or an Other Transaction (OT) under 10 USC 4022 agreement, including prototype and follow-on production, or no contract instrument at all, as a result of this Call. Consistent with 10 USC 4022, awards of follow-on production contracts must be made through the use of competitive procedures unless the award of an initial OT provides for a follow-on production contract and the OT participant successfully completed the prototype project.
- In accordance with Section 5.8 of the CSO, non-Government advisors may participate as non-scoring members during evaluations. For this Call, non-Government advisors include Collaboration.Ai LLC and theDifference.
- Foreign-Owned businesses may independently submit a solution or do so as part of a teaming arrangement with one or more U.S.-owned businesses. Foreign participation is subject to small business and domestic sourcing

restrictions and incentives in this CSO, or as may be imposed in the future by the President pursuant to the Defense Production Act, 50 U.S.C. 50 U.S.C. 4501, et. seq., or the Department of the Air Force. The ability of foreign-owned businesses to obtain a contract award or OTA based upon a submission may depend upon the ability of the foreign-owned business to obtain necessary clearances and approvals to obtain proscribed information, and the ability to comply with U.S. laws, regulations, and contractual terms.

- AFWERX Challenge participants who progress to deliver virtual pitches during the Commercial Solutions Opening (CSO) solicitation process are entitled to use the AFWERX Challenge CSO as a contracting avenue for opportunities with any interested programs for a period of 18 months after Showcase date. The 18-month limitation runs from the date of Showcase to solicitation release

- Agency-level protests submitted under Spiral 1 or Spiral 2 shall be submitted to Sandi Brubaker, Contracting Officer, at sandi.brubaker@afwerx.af.mil. Agency-level protests submitted under Spiral 3 shall be submitted to the Contracting Officer executing the award.