



CALL FOR 2019 AIR FORCE VICE CHIEF OF STAFF CHALLENGE -MULTI-DOMAIN OPERATIONS-

The Vice Chief Challenge is an open competition to solicit innovative ideas to tackle Air Force level problems. This year's challenge will take on Multi-Domain Operations (MDO). The following information details how to compete and/or participate in this year's challenge.

CHALLENGE:

When it comes to MDO, we need to think big, start small, and scale fast to rapidly harness and integrate technology that helps Airmen see around corners, anticipate what's next, and speed our decision cycle. In our personal lives, we are mastering the ability to visualize and understand our environment using smartphones. Navigation apps like Waze change the way we travel across town by giving us an intuitive display that integrates traffic, hazards, and route recommendations in real time. Companies like Uber and Amazon have transformed our view of logistics. We can now clearly see and understand how we will get to the airport, or how a product will get to our doorstep. We should expect the same capabilities and apply these same approaches to MDO.

This challenge aims to deliver similar situational awareness capabilities for the Joint force. The challenge is to design an app, develop an algorithm, or create a new approach that integrates and displays data to provide real-time understanding of our operating environments. In most situations, emerging threats or mission needs require us to act in 15 minutes or less. What can you design or develop now to bring together information you, your squadron, or your joint teammates need to accomplish the mission? How do we connect sensors, platforms, and nodes to share the information with those who need it? The goal of this challenge is to develop technology to see our operating environment more clearly, and to use that technology to save a life, find a threat, or influence a decision within the next year.

INSTRUCTIONS:

The Vice Chief's Challenge consists of a three-phased approach.

- 1) *Open Call:* The first step is for Airmen to submit designs, wireframes, approaches, and/or solutions via the Air Force Ideation platform (<https://usaf.ideascale.gov.com/>). Airmen may compete as individuals, teams, squadrons, or even as a MAJCOM. The platform maximizes sharing and transparency and allows Airmen to provide live input and voting. Proposals will evolve as Airmen join teams and rally behind ideas. At the end of Phase 1, a senior panel will evaluate proposals and push forward the highest potential candidates for additional development in Phase 2.
- 2) *Concept Refinement Workshops:* Harnessing their Partnership Intermediary Agreements, AFWERX/CyberWorx will host workshops, attended by national level SMEs, to refine each concept and draft development plans. At the end of Phase 2, VCSAF will select the best topics for prototype development and demonstration in Phase 3. While Phase 1 is Airmen focused, the workshops in Phase 2 will harness expertise from industry, academia, and other government organizations.

- 3) *Solution Development:* DIU, AFWERX, CyberWorx, Kessel Run, and AFRL will use a combination of flexible contracting or in-house capabilities for prototype development and demonstration, as deemed most appropriate for each project. AFRL will provide Program Managers as needed. VCSAF will select the best ideas at end of the challenge, recognize participant achievements, and sponsor select projects.

Ideation Platform Submission:

- 1) Login to the Ideation platform at usaf.ideascale.gov
 - a. First time users must register for an account using your .mil email address
 - b. Users will receive an email to confirm registration
- 2) From the welcome screen, select “VCSAF’s Air Force Challenge 2018” from the list of active campaigns
- 3) Participate by reading already submitted ideas, offering suggestions to improve those ideas, and voting for preferred ideas.
- 4) To submit new and original ideas:
 - a. Select “Submit New Idea”
 - b. Complete the idea submission fields (A red * indicates required fields)
 - c. Select “Submit Idea”
- 5) Ask colleagues to provide inputs on submitted ideas and vote for preferred ideas. Comments and votes will factor into final selection.

OTHER DETAILS:

Eligibility: US Air Force Airmen (Enlisted, Officer and Civilian employees) are eligible for the first phase of the challenge.

Limitations: Innovation idea submissions shall not include classified material, uniform change requests, or publications reviews.

Criteria for finalist selection: Idea selection will be based on which projects have the highest probability of delivering game-changing impact to Multi-Domain Operations within six months to two years, as determined by a panel of senior leaders. Specific criteria include clarity of the problem statement, potential for impact, feasibility of solution, and ability to articulate a path forward. MAJCOMs should also be aware that the ideation platform allows Airmen to provide input on ideas and to vote for their favorite ideas. Senior leaders will consider idea feedback and voting when making decisions.

Note that winning solutions may come in a variety of forms. A well-articulated, high impact problem and clearly stated need for capability in Phase 1 could become a winning solution in Phase 2. Some selected projects may be as simple as identifying a commercial solution to a specific mission problem or identifying a specific mission need for technology already available in the lab. Finally, some projects may be algorithms, apps, or designs ready to go to production.

Award: A panel of senior leaders will select up to five of the best and most innovative and impactful ideas to move forward through the challenge phases. Selected finalists will receive resources to turn ideas into reality and senior leadership will recognize top contributors.

Timeline: All submissions must be entered into the Air Force Ideation Platform prior to 28 February 2019; however, there is no deadline for commenting and iterating on submitted ideas. The platform will be used to track the progress of each idea through the phases of the challenge. The final outputs of the challenge will occur during the next AFA Air, Space & Cyber Conference, 16-18 September 2019.

Resource: The attached PDF presents five illustrative concepts to help initiate discussion.



Five concepts -
Examples to Discuss

Questions/Support: AFRL.challenge@us.af.mil, 937-713-8513