Solicitation Number: USSOCOM RFI TE 26-1 Technical Experimentation: Multi-Domain Joint SOF Operations (MDO)

Notice Type: Special Notice

TYPE: A–Research and Development

NAICS: 541715 Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)

Publish Date: Sept 17, 2025

Response Date: Oct 17, 2025, 12:00 Noon Daylight Savings Time (DST)

Synopsis:

A. INTRODUCTION: Technical Experimentation (TE)

This Request for Information (RFI) is NOT a solicitation for proposals, proposal abstracts, or quotations. The purpose of this RFI is to solicit technology experimentation candidates from Research and Development (R&D) organizations, private industry, and academia for inclusion in future experimentation events coordinated by the U. S. Special Operations Command (USSOCOM). USSOCOM invites industry, academia, individuals, and Government labs to submit technology experimentation nominations addressing innovative technologies identified in paragraph 4 below. The intent is to provide participants with the opportunity to gain Special Operations Forces (SOF) insight/perspective on participant technologies.

Technical experimentation will explore emerging technologies, technical applications, and their potential to provide solutions for future SOF capabilities.

This RFI is for TE 26-1. This event will occur over the period of one week as shown below.

Dates/Theme/Location:

26 January – 30 January 2026: Multi-Domain Joint SOF Operations – at Hurlburt Field, Florida.

B. OBJECTIVE:

1. Technology experimentation events provide an opportunity for technology developers to interact with operational personnel to determine how their technology development efforts and ideas may support or enhance SOF capability needs. The environment facilitates a collaborative relationship between Government, academia, and industry to promote the identification and assessment of emerging technologies.

2. The deadline for nomination package(s) is **Oct 17, 2025 at 12:00 Noon DST.** After reviewing the TE nomination submissions, the Government may invite select candidates to demonstrate their technologies at the USSOCOM sponsored TE event. Experiments will be conducted from 26–30 January 2026, in Hurlburt Air Force Base, FL and will explore emerging technology solutions and revolutionary improvements in relevant technologies. Materiel solutions brought to the event should be between a Technology Readiness Level (TRL) of 3 and 6 or higher as stated in paragraph 4. Proposed experiments may be between a half day and two days in duration and may be

conducted in unimproved expeditionary-like conditions. There is no intention on the part of USSOCOM to purchase or procure equipment based solely on participation in the TE. An Android Tactical Assault Kit (ATAK) capability will be available at the event for participating experiments.

3. Experimentation Focus: The primary intent of this event is to highlight technologies that support Multi-Domain Joint SOF Operations.

4. Technology areas to explore during the event include the following:

4.1 Unmanned Systems (UxS) - All Domains

4.1.1 Multi-Modal, Multi-Domain Capabilities:
- 4.1.1.1 Single systems (air, land, sea).
- 4.1.1.2 Low-cost, attritable sensors/payloads w/ volatile firmware & remote zeroizing (SIGINT, EW, IMINT, GEOINT, ELINT, MASINT), including RF deception/decoy payloads.
- 4.1.1.3 Low Size, Weight, and Power (SWaP) phased antenna arrays.
- 4.1.1.4 Operations without RF comms.
- 4.1.1.5 Biomimicry. Modeled after living organisms.
- 4.1.1.6 Automatic Threat/Target Recognition (ATR) algorithms (agnostic datasets).
- 4.1.1.7 No-code/low-code edge ATR training.
- 4.1.1.8 Software defined radio compatible.

4.1.2 Unmanned Aerial Systems (UAS):
- 4.1.2.1 SUAS charging (solar/wind/hydro/combustion/parasitic/in-flight/novel).
- 4.1.2.2 Novel propulsion.
- 4.1.2.3 UAS signature management.
- 4.1.2.4 SUAS battery extensions & solar options.
- 4.1.2.5 SUAS payload infil/exfil.
- 4.1.2.6 Deployment/retrieval mechanisms & automated data intercept.

4.1.3 Unmanned Ground Vehicles (UGV):
- 4.1.3.1 Robust man-packable robotics (legged, wheeled, tracked) for complex navigation/subterranean environments.

4.1.4 First Person View (FPV) UxS (US/Non-Foreign Covered Country Components):
- 4.1.4.1 FPV Goggles
- 4.1.4.2 Modular UAS
- 4.1.4.3 Targeting solutions
- 4.1.4.4 Tak Plug-Ins

4.1.4.5 Encrypted C2 links
4.1.4.6 Video transmitter (VTX) / C2

4.1.5 Modular, Low SWaP- CUxS & Rapidly Produced (All UxS Types):
4.1.5.1 Modular components.
4.1.5.2 Low-cost/attritable/disposable/rapidly produced UxS
4.1.5.3 Software-agnostic.
4.1.5.4 Kinetic/non-kinetic modular payloads
4.1.5.5 Edge UxS production
4.1.5.6 Tactical UxS weaponry
4.1.5.7 Low SWaP jam-resistant GPS antennas

4.1.6 Heterogeneous Teaming & UxS Swarming:
4.1.6.1 UxS common controllers/architectures
4.1.6.2 Inter-agent communications
4.1.6.3 AI-enabled swarming algorithms
4.1.6.4 Multi-domain delivery/charging platforms
4.1.6.5 Manned/unmanned teaming with collaborative alerts for situational awareness (ML, optimized engagement, cooperative re-tasking, autonomous launch/recovery, networking)

4.2 UxS Human-Machine Interface (HMI) & AI/Sensor Integration:
4.2.1 AI for autonomy.
4.2.2 Novel RF/non-RF control architectures
4.2.3 Multi-modal UxS control (single/multi-agent, End User Device-based)
4.2.4 Bi-directional state sharing
4.2.5 Advanced UxS/AR displays
4.2.6 Hands-free command
4.2.7 AI-enabled COP
4.2.8 Multi-sensor fusion
4.2.9 ATR integration
4.2.10 IoT integration

4.3 Logistical Support Capabilities:

4.3.1 Cross-domain resupply platforms (air-ground/maritime-land)
4.3.2 Covert edge delivery
4.3.3 Man-packable power (>1kW) & freshwater generation
4.3.4 Casualty transport
4.3.5 Hydrogen production at the edge
4.3.6 Advanced/Additive Manufacturing at the edge
4.3.7 Rapid Point-of-Need Logistics

4.4 Counter-UxS Capabilities:

4.4.1 Operator-worn/portable UxS detection/localization/classification (Passive).
4.4.2 Novel defeat capabilities (portable, UxS-mounted, vehicle-mounted low SWaP).

4.5 Edge Processing & Computing:

4.5.1 Low SWaP body-worn hardware
4.5.2 FPGAs
4.5.3 Quantum computers
4.5.4 Fanless computers
4.5.5 Quantum storage/memory
4.5.6 Solutions for compute/battery optimization
4.5.7 Advanced chip manufacturing
4.5.8 Edge Intelligence
4.5.9 Edge Security
4.5.10 5G+ edge computing
4.5.11 Distributed computing
4.5.12 Software-defined networking

4.6 Blue Force Awareness Technology:

4.6.1 Devices/tech to distinguish friend/foe on UxS platforms visually/digitally

4.7 Counter Ubiquitous Technical Surveillance (C-UTS) Technologies:

4.7.1 Software/hardware to deny/deceive UTS.

4.8 Alternative Position Navigation and Timing:

4.8.1 Alternative PNT for small UxS (RF signals of opportunity, Visual Based Navigation (VBN), Vision-Aided Navigation (VAN), Terrain Referenced Navigation (TRN), Visual Inertial Odometry (VIO), Simultaneous Localization and Mapping (SLAM), magnetometry, LiDAR (US/non-covered), RADAR navigation, Inertial Navigation System (INS), Inertial Measurement Unit (IMU), celestial navigation, photogrammetry), etc.
4.8.2 Real-time GPS-denied navigation without reach back.

4.9 Data Transport, Processing, Collection and Storage:
4.9.1 Single multi-link, multi-band receiver antennae with multiple integrated receivers
4.9.2 Cross-edge node/mesh-like data federation capability.
4.9.3 Multi-band communication relays.
4.9.4 Acoustic/Visible/Infrared/Fiber communications for UxS.

4.9.5 Voice and Data Processing.
4.9.6 AI for processing.
4.9.7 Data integration/interoperability.
4.9.8 Scalable edge compute servers (laptop/transit case/vehicle-mounted) for strategic-tactical use
4.9.9 Data compression.
4.9.10 Tactical C4 solutions.
4.9.11 Crossband waveform integration (VHF/UHF/L/S/C bands).
4.9.12 Multi-level security (Data at rest, data in transit and data processing).
4.9.13 CJADC2 support (COP/data fabric).
4.9.14 Low-cost attritable sensors.

4.10 High Altitude Sensor Payloads:

4.10.1 Lightweight man-portable systems (stratospheric tested, low power).
4.10.2 Payloads <6lbs (60k ft).
4.10.3 Payloads <16lbs (55k ft).
4.10.4 Payloads <32lbs (45k ft).
4.10.5 LOS ELINT/COMINT/ES
4.10.6 RF direction finding/geolocation, EO/IR w/ geolocation
4.10.7 Volatile memory.
4.10.8 Network layer integration.
4.10.9 Signal separation/interference management.

4.11 High Altitude Platforms:

4.11.1 Man-portable (2-person setup <15min)
4.11.2 Payload power support
4.11.3 Payloads <12lbs (station-seeking)
4.11.4 Payloads <40lbs (non-station-seeking)
4.11.5 HALES delivery & secure BLOS comms (hand-held radios)
4.11.6 Persistent ISR (>24hr)

4.12 Lightweight Air Launched Effects Delivery System:

4.12.1 Lightweight, precision, glide systems.
4.12.2 GPS-denied navigation (RF signals of opportunity, Visual Based Navigation (VBN), Vision-Aided Navigation (VAN), Terrain Referenced Navigation (TRN), Visual Inertial Odometry (VIO), Simultaneous Localization and Mapping (SLAM), magnetometry, LiDAR (US/non-covered), RADAR navigation, Inertial Navigation System (INS), Inertial Measurement Unit (IMU), celestial navigation, photogrammetry),
4.12.3 Semi-active laser designator,
4.12.4 Payload <10lbs, overall system <30lbs,
4.12.5 Capable of operating in -45F.
4.12.6 Built-in data link (downlink, C2, self-destruct,).

4.13 Deception Software and Platforms:

4.13.1 Programmable, man-packable, expendable payloads with remote zeroizing.
4.13.2 Low-cost attritable RF device.

4.14 Communication systems:

4.14.1 Free space optical communications.
4.14.2 Jam resistant.
4.14.3 RF/non-RF.
4.14.4 Beam steering / Beam Nulling.
4.14.5 Man-portable Satcom on the move.

5. Security/Classification Requirements: Respondents shall not submit classified information in the technology experimentation nominations.

6. Safety Requirements: All respondents shall review the TE Safety Guide (RFI Notice Attachment 3). Those respondents who are invited to demonstrate their technologies must complete a Deliberate Risk Assessment Worksheet (Department of Defense Form 2977) (RFI Notice Attachment 4) in accordance with MIL-STD-882E and the Department of the Army Techniques Publication No. 5-19 (ATP 5-19). Risk assessments shall be emailed directly to the tech_exp@socom.mil by **15 January 2026**. Respondents should include instructions that describe the safe operation of the device nominated for the experiment.

7. **Frequency Requirements**: **If your experiment will be radiating on a given frequency or frequency band, you must have prior approval to transmit on that frequency**. Prior approval includes compliance with Federal Communications Commission (FCC) Title 47, Part 15, or a **Special Temporary Authority (STA) from the FCC**. You must have National Telecommunications and Information Administration (NTIA) frequency approval if your experiment includes Government-owned equipment, and you will be operating within a Federal Band. **Respondents are advised to not wait for confirmation of selection/invitation to the event before requesting a STA from the FCC**. Your authority to radiate must be emailed directly to **tech_exp@socom.mil** by **26 December 2025**. All frequency questions shall be directed to the USSOCOM Technical Experimentation team at the email above. **Respondents shall not contact the Hurlburt facility directly.**

8. Human Subjects. It is not anticipated that activities being conducted in this TE event will require the use of research or experimentation involving human subjects. Technology experiment submissions will be reviewed for potential research or experimentation involving human subjects. Any submission that is determined to potentially include research or experimentation involving human subjects will be required to adhere to DoD Instruction 3216.02 “Protection of Human Subjects and Adherence to Ethical Standards in DoD Supported Research” and ensure appropriate

Institutional Review Board and DoD Human Research Protections Office approvals prior to conducting those activities.

9. Other Special Requirements: DO NOT SUBMIT PROPOSALS OR MARKETING DEMONSTRATIONS. SUBMIT TECHNOLOGY EXPERIMENTATION NOMINATIONS ONLY. EXPERIMENTATION NOMINATION SUBMITTALS FOR THIS RFI WILL ONLY BE ACCEPTED UNTIL THE CLOSING DATE OF **Oct 17, 2025**, **12:00 Noon DST**, for the requirements stated above. No contracts will be awarded based solely on this announcement or any subsequent supplemental RFI announcements.

C. SUBMISSION INSTRUCTIONS:

Technology experimentation nominations shall be submitted electronically by creating a Scout Card in the Vulcan system at:vulcan-sof.com by the respective deadline. **Scout Cards must be created within the call for TE 26-1 Technical Experimentation: Multi-Domain Joint SOF Operations (MDO).**

The Vulcan system is best accessed by using Firefox or Google Chrome browsers. Associated technology experiments with distinctly different uses or applications should have separate nominations submitted by each respondent. USSOCOM personnel will review submissions to determine whether an experiment submission will be accepted for invitation to attend the TE event.

A complete submission consists of:

• Creating a Scout Card in the Vulcan system as described above.

• Completely filling in the Supplemental Sheet (RFI Notice Attachment 2) and attaching it to the Scout Card. **Note: The Supplemental Sheet is unique for each event and must be read and completed in its entirety. It is opened, filled out and submitted in Microsoft Excel ONLY. DO NOT alter the form or submit PDF copies. Failure to properly fill out this form will result in non-selection for this event.**

• Devices with radio frequency emissions must state the intended frequency or frequencies used by the device(s).

• An FCC STA, Experimental License, or NTIA document (for developmental radio frequency emitting devices). If neither is available at the time of submission, provide status of your FCC/NTIA request.

• Instructions on how to safely use the technology (as needed).

• If applicable, a picture of the device with a short description of the size (shows the dimensions or places the device next to a ruler, currency, or man-sized object for comparison).

• A signed Photo Release (RFI Attachment 5).

Selected respondents will be invited to participate in USSOCOM experiments. USSOCOM shall provide venues, supporting infrastructure, and Joint-SOF assessment personnel (operational and technical, based on availability of resources and written request as discussed above) at no cost to invited respondent(s). **All respondents'**

submission costs, travel costs, technology experiments, and experimentation associated costs will be at the respondents' expense. The TE venue will only provide basic access to training areas or ranges (if approved and applicable) to conduct experiments, a facility to connect to the internet, basic venue infrastructure including frequency coordination/deconfliction, and portable/shore power. Invited respondents must be prepared to be self-sufficient during the execution of their experiments and not dependent on venue resources.

Time and space will be made available for technology developers to conduct real-time modifications and updates to technologies. **Technology developers are advised to bring all tools and equipment necessary to present/operate their technology throughout the event.**

D. BASIS FOR SELECTION TO PARTICIPATE:

Selection of respondents to participate shall be based on the extent to which the technology represents a potential capability increase to SOF.

Other considerations include:

- Technical maturity.
- Relevance of or adaptability to military operations/missions.
- Relevance to current operational needs.
- Relevance to Event Focus Areas.

E. ADDITIONAL INFORMATION: All efforts shall be made to protect proprietary information that is clearly marked in writing. Lessons learned by USSOCOM from these experiments may be broadly disseminated, but only within the Government. If selected for participation in Technical Experimentation, developers may be requested to provide additional information that will be used in preparation for the experiments.

Future TE events with TENTATIVE themes/focus areas, locations, ANTICIPATED dates and RFI open periods are as follows:

Number	Theme/Focus Area	Location	Event Dates	RFI Open Period
TE 26-2	Agentic AI	Avon Park, FL	13-17 April 2026	Nov 25

Technology developers invited to this event are encouraged to contact each other using the social media through USSOCOM Technical Experimentation. While USSOCOM Technical Experimentation has access to several social media, the preferred collaboration social media link is LinkedIn www.tinyurl.com/LinkedIn-SOCOMTE.

F. USE OF INFORMATION: The purpose of this notice is to gain information leading to Government/Industry collaboration for development of USSOCOM technology

capabilities and to assist in accelerating the delivery of these capabilities to the SOF warrior. All proprietary information contained in the submission and technology experimentation shall be appropriately marked. The Government will not use proprietary information submitted by any one firm to establish future capability and requirements. During the event USSOCOM may broadcast technology experiments via video-teleconference back to USSOCOM and/or their operational components. Respondents to this RFI shall review and submit the photography approval form at Attachment 5.

G. SPECIAL NOTICE:

1. Federally Funded Research and Development Centers (FFRDCs) or contractor consultant/advisors to the Government will review and provide support during evaluation of submittals. When appropriate, non-Government advisors may be used to objectively review a particular functional area and provide comments and recommendations to the Government. All advisors shall comply with procurement integrity laws and shall sign non-disclosure statements. The Government shall take into consideration requirements for avoiding conflicts of interest and ensure advisors comply with safeguarding proprietary data. Submission in response to this RFI constitutes approval to release the submittal to approved Government support contractors.

2. There will be foreign attendees (military, government, or industry partners), who are interested in the capabilities being demonstrated at the TE event. Respondents are ultimately responsible for complying with all International Trafficking in Arms (ITAR) /Export Administration Regulations (EAR) requirements associated with their equipment. Before declaring their ITAR/EAR status, respondents to this RFI should verify the ITAR/EAR status of their technology by visiting the US Department of State Directorate of Defense Trade Controls (ITAR) website at: (https://www.pmddtc.state.gov/ddtc_public) and the US Department of Commerce Bureau of Industry and Security website (https://www.bis.doc.gov/) for more information on Export Administration Regulations (EAR). USSOCOM event organizers will restrict access as necessary to assist in protecting ITAR/EAR related technology demonstrations.

H. Per Federal Acquisition Regulation (FAR) 52.215-3, Request for Information or Solicitation for Planning Purposes (Oct 1997):

1. The Government does not intend to award a contract based on this RFI notice or to otherwise pay for the information.

2. Although "proposal" and "respondent" are used in this RFI, your responses will be treated as information only. It shall not be used as a proposal.

3. In accordance with FAR 15.209(c), the purpose of this RFI is to solicit technology experimentation candidates from research and development organizations, private industry, and academia for inclusion in future experimentation events coordinated by USSOCOM.

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