Call for Technology: Threat Targetry

Southwest Mission Acceleration Center (SWMAC) is seeking new & emerging technology solutions in the realm of software-defined and RF-enabled targetry transceivers for multi-domain ranges. The ideal technology can replicate, represent, and emulate modern threat systems and activities to support realistic training at home station locations in a complex electromagnetic environment. Viable solutions will be capable of:

- withstanding the rigors of ground transport over rough terrain.
- connecting to a network with a common radio interface connection.
- being operated and maintained by individuals who are technically trained in electromagnetic warfare, signals intelligence, or radio communications.
- being separated by bands (HF, VHF, UHF, EHF)
- emulating ground-based signals in theaters such as ground surveillance radars, ground electromagnetic attack emitters, advanced threat tactical communications, ground-based fire finder radars, air defense radars, and the communications associated with unmanned aerial systems.
- being programmable and software defined with imported IQ files, mission configuration files, or be specifically built using open-source software defined radio applications such as RedHawk, GNU Radio, or other software to replicate or manipulate a waveform.
- being equipped with applicable antennas, amplifiers, and cabling.
- providing operators with real time feedback on the effectiveness of EA, through either an onboard interface, networked back to a controller, or post processed.
- resistance to weather and dust and able to withstand usage in an outdoor field environment (cold weather, wet weather, and extreme hot weather climates).
- interfacing with the Threat Battle Command Force (TBCF) interface standard

A [Technical Readiness Level](#) (TRL) of 5 or higher is requested.

About the Southwest Mission Acceleration Center
Located in Phoenix, Arizona, the SWMAC is expediting critical technology assets to the warfighter in collaboration with DoD mission partners to address pressing National Security challenges. SWMAC programming includes critical technology identification & venture creation, lab-to-market commercialization, direct funding and contracting support to develop prototypes, and training and support for entrepreneurs and the tech workforce needed to ensure these startups and our mission partners succeed.

Technology Submission Process
Please submit a quad chart to the SWMAC *no later than 12:00 p.m. EST on Friday, January 26, 2024.* Quad charts should be sent as an email attachment to solutions@swmac.org. All information requested below MUST be included.

Top Left Quadrant: Introduction
- Brief project title or description.

- Overview of the current capabilities.

Top Right Quadrant: Key Features or Components
- Major features and components of the system.
- Bullet points or concise explanation of how your technology satisfies the above requested features/functions.
- Visual representations or icons to aid understanding (if applicable).

Bottom Left Quadrant: Company Profile
- List of current customers (priority to Federal customers)
- Current level of investment in the continued development of the technology, including the sources of funding.
- Brief explanation of corporate structure and ownership.

Bottom Right Quadrant: Benefits or Impact
- Positive impact on stakeholders, clients, or users.
- Metrics or data showcasing the value proposition (if available).