Request for Information for Key Leader Radio and Intra Team Radio

1. Introduction and Purpose

The United States Special Operations Command (USSOCOM), Program Executive Office for Tactical Information Systems (PEO-TIS), Special Operations Forces (SOF) Tactical Communications (STC) Program Management Office (PMO) is issuing this Request for Information (RFI) to identify sources capable of providing a Key Leader Radio (KLR) and an Intra Team Radio (ITR). The purpose of this RFI is to gain a better understanding of the current market and the technological capabilities of available solutions. This is for informational and planning purposes only and does not constitute a Request for Proposal (RFP). As part of this RFI, an in-person Industry Day will be held, in which vendors will be allowed to brief/demo the capabilities directly to the government.

2. Background

USSOCOM has a critical need for reliable and secure communications for dismounted warfighters operating in a variety of challenging environments. These radios are a key component of USSOCOM’s tactical communications strategy, providing a resilient and autonomous solution for voice and data transmission at the team and leadership levels.

3. Scope

This RFI is seeking information on two types of radios that are currently available or could be readily adapted to meet USSOCOM's operational requirements:

Intra Team Radio (ITR): A single-channel radio with the primary focus being voice communication between maneuver elements or peer-to-peer at a range of no less than 3 miles. The secondary focus shall be data communications.

Key Leader Radio (KLR): A dual-channel radio. With the same capability of the ITR.

Both radios must be capable of mounting in various SOF platforms. They must be jerk and run capable (or hot-swap/quick-disconnect). The jerk and run communication capability must allow the radios to be instantly removed from a vehicular mount or amplifier without breaking the connection, allowing the SOF user to move from a vehicle to dismounted operations without losing power or communication.

PMO-STC is interested in solutions that are lightweight, rugged, and offer advanced features to enhance communications in contested environments. Key performance requirements for these radios are:

Ease of Use: The radios must be intuitive to operate, alleviating the need for formal training.

Resilient Waveforms: The radios must support and provide resilient waveforms with Anti-Jam (AJ) and Low Probability of Intercept/Low Probability of Detection (LPI/LPD) capabilities.

Multiple Use Cases: The radios must support at least two use cases: Attended (operator present) and Integrated (installed in Crewed platforms).

Interoperability: The radios must support and provide Department of War (DoW) Information Repository (IR) and North Atlantic Treaty Organization (NATO) waveforms that provide commonality and interoperability for both voice and data between USSOCOM, DoW Services, NATO, and Five Eyes (FVEY) partners.

Beyond Line of Sight (BLOS) Capability: The radios must support and provide waveforms that allow voice and data communications to reach beyond traditional LOS. This can include Satellite Communications (SATCOM), both government and commercially owned, Cellular, or other innovative or novel waveforms and techniques.

Open Architecture: The radios must be built on an open architecture, easily allowing the integration of new waveforms from 3rd parties without requiring the assistance of the Original Equipment Manufacturer (OEM).

Modular Design: As an objective, the radios should be modular in design, allowing the SOF user the ability to swap out modules to provide different waveform, spectrum, or encryption functionality.

4. Requested Information

Interested parties are requested to provide the following information in less than 5 pages and should include pictures, drawings, or operational concept graphics as necessary to describe the capability.

- Company Information
- Company Name, Address, and Point of Contact
- Company Size and relevant experience in providing tactical communication solutions to military or government customers
- CAGE Code and DUNS Number
- Technical Specifications

Please provide detailed specifications for your proposed radio(s), including but not limited to:

Use Case Support: Please specify how the proposed solution's hardware and software support the Attended and Integrated use cases.

Radio Configuration: Please specify if the proposed solution meets the KLR (dual-channel), ITR (single-channel), or if the design is modular to support both configurations.

Modular Design: Describe the modularity of the radio design. Detail how modules can be swapped by a user to provide different waveform and/or encryption functionality.

Frequency Range: Describe the operating frequency range of the radio.

Output Power: Describe the power output in watts and how power control is managed.

Size and Weight: Describe the dimensions and weight of the radio with and without the battery.

Battery Life: Describe the expected battery life under typical operational conditions (e.g., 80% standby, 10% transmit, 10% receive).

Environmental Specifications: Describe any compliance with military standards for temperature, humidity, shock, and vibration (e.g., MIL-STD-810G).

Antenna Options: Describe available antenna types and their performance characteristics.

Ease of Use: Describe the features, user interface, and design considerations that make the radio intuitive to operate and minimize training requirements.

Technology Readiness Level (TRL): Describe the current TRL of the product and what is needed to get to the TRL 7/8 level.

Waveform and Data Capabilities

Supported Waveforms: Provide a list of supported waveforms, with a focus on resilient AJ and LPI/LPD capabilities.

Open Architecture: Describe the radio's architecture and the process for integrating third-party waveforms. Detail the Software Development Kit (SDK) or Interface Control Documents (ICDs) available to third-party developers. Explain how this can be achieved without OEM assistance.

Interoperability: Describe interoperability with other military and coalition radio systems.

Security Features

Encryption: Provide details of the encryption capabilities, including support for Advanced Encryption Standard (AES) 256 and other government-standard encryption algorithms. Describe Cryptographic High Value Product (CHVP) certification or plans and roadmaps to obtain certification. Top Secret capabilities are of interest if feasible.

Anti-Jamming/Anti-Spoofing: Describe features to mitigate the effects of electronic warfare, such as frequency hopping and other Electronic Counter Measure (ECCM) techniques.

Low Probability of Intercept/Low Probability of Detection: At an unclassified level, describe any specialized LPI/LPD waveforms, modulation or power control techniques utilized by the radio.

Production and Availability

Production Capacity: Describe your company's ability to produce and deliver the proposed radios in quantity.

Lead Time: Provide estimated lead time for initial and subsequent deliveries.

Rough Order of Magnitude (ROM) Cost

Please provide a ROM cost per unit for the handheld radio and any associated accessories. This is for budgetary planning purposes only. The estimated total quantity buy is 30,000 units, split between KLR and ITR.

5. Disclaimer

This RFI is for informational and planning purposes only and is not to be construed as a commitment by the Government to procure any items or services, nor does the Government intend to award a contract on the basis of this RFI. The Government will not pay for the information solicited, nor will it compensate any respondent for any costs incurred in developing the information for the Government.