REQUEST FOR INFORMATION

CAPACITY ON A UHF-CAPABLE ON-ORBIT MEO SATELLITE

1.0 GENERAL INFORMATION

This Request for Information (RFI) is issued solely for information and planning purposes (market research). This RFI does not constitute a solicitation (Request for Proposal (RFP) or Request for Quotations (RFQ)) or a promise to issue a solicitation in the future. This RFI does not commit the Government to contract for any supply or service whatsoever. Furthermore, the Government is not, at this time, seeking proposals and will not accept any unsolicited proposals. Respondents are advised the Government will not pay for any information or administrative costs incurred in response to this RFI. All costs associated with responding to this RFI will be solely at the responding party's expense. Not responding to this RFI does not preclude participation in any future RFP, if any is issued. Any information submitted by respondents to this RFI is strictly voluntary. All submissions become Government property and will not be returned.

Due to the operational sensitivity of the Narrowband SATCOM mission, any future acquisition resulting from this market research will require strict adherence to Department of War (DoW) and Department of Defense (DoD) security, cybersecurity, and supply chain integrity standards. Consequently, while responses to this RFI must remain entirely unclassified, respondents are required to demonstrate their organizational posture regarding facility clearances, information safeguarding (CUI/CDI), and National Defense Authorization Act (NDAA) supply chain compliance. For the purposes of this market research, the anticipated North American Industry Classification System (NAICS) code is 517410 (Satellite Telecommunications) with a Small Business Size Standard of $44.0 Million, and the Product Service Code (PSC) is DG11 (IT and Telecom - Network: Satellite Communications and Telecom Access Services)

2.0 BACKGROUND

The secure Narrowband SATCOM requirement is currently being provided by the Mobile User Objective System (MUOS) system at Geostationary Earth Orbit (GEO). As the operational space environment evolves, the United States Space Force (USSF) requires solutions that add resiliency to the architecture while also increasing capacity for the Warfighter. The concept of providing a future Ultra High Frequency (UHF) capability from a Medium Earth Orbit (MEO) constellation has thus emerged.

3.0 OBJECTIVE

This Request for Information (RFI) is focused on obtaining access to bandwidth carried by a commercially owned, commercially operated UHF-capable on-orbit MEO satellite for use in a near-term experimental campaign to:

a) Characterize spectrum, waveform, and user equipment operation with a MEO UHF system
b) Demonstrate interoperability between a potential future MEO UHF system and the existing GEO constellation
c) Inform a time-sequenced pathway to augment or replace the GEO UHF system with a MEO capability

The offeror should consider technology solutions that prioritize existing space vehicle, payload and communications link capabilities to provide on-orbit service **immediately or as soon as possible**. An Initial Launch Capability (ILC) by 2030 is potentially useful, but innovative approaches leading to earlier on-orbit capability are strongly desired. The Government recognizes that this initial prototype may not be fully representative of a final, future architecture, but rather represents an initial step to explore providing UHF services from MEO.

4.0 DESIRED CAPABILITIES AND CHARACTERISTICS

The UHF-capable space node should:

a. Operate within the 244-380 MHz band, accommodating:
    i. 20 MHz of contiguous uplink bandwidth within the 360-380 MHz band and 20 MHz of contiguous downlink bandwidth within the 300-320 MHz band
        1. The uplink/downlink bands should each support at least two 5 MHz channels within their respective 20 MHz block
    ii. Up to 1 MHz of contiguous downlink bandwidth within the 244-270 MHz band.
        1. The downlink band should support one 25 kHz data broadcast channel
b. Produce an Earth-fixed "staring" UHF illuminated footprint on a configurable ground location, adjustable over time
    i. Threshold count: one beam
    ii. Objective count: two beams
c. Illuminate each UHF beam with a ground-measured power not to exceed -138 dBW/kHz/m^2 across the entire beam when the spacecraft is up to 45 degrees from zenith, where possible, and while accommodating all regulatory requirements

d. Support multiple waveforms on the up/downlink UHF channels
    i. Threshold: MUOS WCDMA and a future modified MUOS WCDMA
        1. The MUOS waveform is modifiable, in that a radio may alter the software significantly or even substitute. However, much of the waveform's functionality is not optional, as the software performs an essential role in the MUOS performance and functionality. The MIL-STD 188-187A establishes the requirements for SATCOM radios accessing MUOS.
    ii. Objective: Any channel-compliant waveform.
e. Accommodate a feeder link to support aggregate transport of uplink and downlink UHF channel content to one or more associated ground stations
f. Permit persistent connectivity with a terrestrial terminal by conducting hand-offs between beams and/or satellites (if more than one beam or satellite is provided)
g. Operate within an altitude range of 8,000 to 22,000 km
h. Provide terrestrial coverage inclusive of 30-40 degrees north latitude
i. Provide, as soon as practicable, indefeasible right of access to the Government for a continuous period of:
    i. Threshold: 36 months
    ii. Objective: Useful life of the space vehicle

5.0 SECURITY, CYBERSECURITY, AND SUPPLY CHAIN REQUIREMENTS

The secure nature of this Narrowband SATCOM requirement dictates adherence to stringent Department of War (DoW) / Department of Defense (DoD) security protocols. While responses to this RFI must remain unclassified, respondents shall address their current capabilities and compliance regarding the following security domains:

1. Facility and Personnel Security Clearances

Given the operational nature of UHF communications and the potential for integration with the existing MUOS architecture, future execution of this effort will likely require access to classified information and systems.

- Respondents must state their current Facility Clearance Level (FCL) (e.g., None, Secret, Top Secret) and classified safeguarding capabilities.
- Respondents should confirm their capacity to provide appropriately cleared personnel (Personnel Security Clearances - PCL) and facility infrastructure to support secure development, testing, and operations.

- Please indicate your facility's current capability and experience in handling, storing, and integrating Communications Security (COMSEC) and Transmission Security (TRANSEC) materials.

2. Cybersecurity and Information Safeguarding (CUI/CDI)
The protection of Controlled Unclassified Information (CUI) and Covered Defense Information (CDI) is critical to this effort.

- In accordance with DFARS 252.204-7012, 7019, and 7020, respondents must describe their current capability to safeguard CUI/CDI.
- Please indicate your current compliance status with NIST SP 800-171, confirm whether an active assessment score exists within the Supplier Performance Risk System (SPRS), and state your current readiness posture for the Cybersecurity Maturity Model Certification (CMMC) (Level 2 or higher).

3. Supply Chain Risk Management (SCRM) & NDAA Compliance
Due to the critical nature of space capabilities and the associated ground segment architecture, rigorous supply chain integrity must be maintained.

- Respondents must confirm their current compliance with Section 889 of the FY19 National Defense Authorization Act (NDAA) (FAR 52.204-24 and 52.204-25), which prohibits the procurement or use of covered telecommunications equipment or services from prohibited Chinese entities.
- Briefly describe your corporate Supply Chain Risk Management (SCRM) approach to identifying and mitigating risks (e.g., counterfeit parts, malicious hardware/software insertion) across both the space vehicle payload and any proposed commercial ground infrastructure.

6.0 INFORMATION REQUESTED
Responses shall provide clear descriptions of the existing or proposed space capability offered to the Government, including a detailed assessment of its compliance with the DESIRED CAPABILITIES AND CHARACTERISTICS and the SECURITY, CYBERSECURITY, AND SUPPLY CHAIN REQUIREMENTS. A milestone schedule of service availability, a pricing structure, and a cost estimate shall be provided that enables the Government to assess the viability of meeting cost, schedule and performance goals. Respondents may assume that the Government will assist with gaining access to the spectrum required to provide the desired capability, if such assistance is required. As such, an outline of the proposed approach to spectrum allocation should be included in the response.

To baseline this pricing, respondents shall assume a Contractor-Owned, Contractor-Operated (COCO) ground segment architecture. To protect Government ownership interests, ensure future interoperability, and prevent vendor lock-in, the Government requires robust accessibility to system interfaces. Responses must detail the availability and accessibility of the Technical Data Package (TDP), Interface Control Documents (ICDs), and open Application Programming Interfaces (APIs) required to integrate the capability with existing Department of War (DoW) networks. Furthermore, respondents must explicitly identify any anticipated intellectual property restrictions and state the expected level of Data Rights (e.g., Unlimited Rights, Government Purpose Rights, or Specifically Negotiated License Rights) to be conveyed to the Government for ground-to-space interfaces and telemetry, tracking, and commanding (TT&C) data streams.

Responses shall include any relevant data rights, regulatory requirements, or required Government Furnished Information or Equipment.

7.0 SUBMISSION DETAILS

RFI response must be submitted via DoD Safe, (https://safe.apps.mil/). In order to submit, please contact the Contract Specialist, no later than close of business, three (3) workdays prior to the submission deadline to receive a DoD Safe drop-off request. A drop-off request is valid for 14 days. Offerors will receive an automated email containing the instructions for uploading the file(s). If you did not receive an automated e-mail message for your drop-off request within 3 business days, please contact the Contracting Officer.

- Clarifying Questions Due: **24 July 2026, 1400 Mountain Time**. Submit via email to the POCs below with the subject line *"RAPID UHF Space Node RFI: Clarifying Questions"*. The Government will post consolidated responses on SAM.gov prior to final response due date.
- Final Responses Due: **10 August 2026, 1400 Mountain Time**

<u>Points of Contact:</u>
Contract Specialist (Primary): Paola Sanchez-Medina, paola.sanchez-medina@spaceforce.mil
Contracting Officer (Alternate): DeAnna Salazar, deanna.salazar@spaceforce.mil

Responses to this RFI shall be sent to the POCs identified and include a cover page and the following information:

- Subject Line: “RAPID UHF Space Node RFI: Response”
- Submitter’s Name and Parent Company, if applicable

- Business Address: Street, City, State, NINE-digit zip code
- Commercial and Government Entity (CAGE) Code
- Unique Entity ID
- Company socio-economic status
- POC (i.e., company representative)
- POC telephone number and email address

Responses, in entirety, shall be limited to 15 single-sided pages. Documents shall be formatted in accordance with the following:

- Single-spaced,
- One-inch margins
- US letter-size (8.5" x 11")
- 12-point font (Times New Roman), and
- Be formatted with current Microsoft Word or Adobe Acrobat Reader versions
- Not be protected via password or other information management mechanism

Submissions shall not exceed a 7 MB email limit for all items associated with the response. Hard copy responses will not be accepted. The Government will accept company literature or marketing materials that are responsive to this RFI, in which case the page limit applies but font sizes may vary.

Proprietary information will be safeguarded in accordance with applicable regulations. Respondents shall indicate which portions of its response are Intellectual Property (IP) and mark IP accordingly. **Classified submittals will not be accepted.**

The PCO has entered into agreements with Federally Funded Research and Development Center (FFRDC) and/or Systems Engineering and Technical Assistance staff working for the Government, including The Aerospace Corporation. These organizations support the Government by performing technical reviews, systems engineering and integration analyses, cost estimation, and other advisory services. Respondents are hereby notified that all responses will be provided to AFRL RAPID support contractors. Please include a statement in your submission acknowledging that the submitted document(s) can be provided to AFRL RAPID support contractors. If respondents disagree to the release of its RFI response to any of the aforementioned firms, the respondent shall clearly state this restriction in the cover letter accompanying the RFI response.

Foreign firms cannot participate in this acquisition at the prime contractor level. However, foreign firms can participate in this acquisition at the subcontractor level if they are eligible to do business with the US Government. The research and test data produced under a resultant contract may contain Military Critical Technology List (MCTL) information whose

export is restricted by the Export Control Act (Title 22, U.S. Sec 2751, et seq.) or the Export Administration Act of 1979, as amended (Title 50, U.S.C., App. 2401, et seq.). Request certification and registration from the Defense Logistics Services Center (DLSC), Federal Center, 74 North Washington, Battle Creek, MI 49016-3412 as soon as possible.

8.0 DISCLAIMERS

The Government does not intend to award a contract on the basis of this RFI or otherwise pay for the information solicited herein. This RFI is issued solely for market research and planning purposes and does not constitute a Request for Proposal (RFP), Request for Quotation (RFQ), or a promise to issue a future solicitation.

Responses to this notice are not offers and cannot be accepted by the Government to form a binding contract. Information obtained through this RFI will be used solely for information, program planning, and to assist the Government in shaping future acquisition strategies. Follow-on activities to this RFI may utilize Air Force Research Laboratory (AFRL) STAR, Space Systems Command (SSC) SpEC OTA, or other agency contract mechanisms, as determined by the Government.