

OPTICAL COMMUNICATION TRANSMISSION SYSTEM (OCTS)
REQUEST FOR INFORMATION (RFI)
M67854-19-I-2042

1. GENERAL INFORMATION

Document Type: Request for Information/Market Research

Sources Sought: All Businesses – Under North American Industry Classification System (NAICS) Code 334220 - Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing

Closing date for RFI: **March 19, 2019 at 1:00pm, local time, Quantico, Virginia**

2. DESCRIPTION

This RFI initiates market research under Federal Acquisition Regulation (FAR) Part 10.002(b) (2) (iii). Marine Corps Systems Command (MCSC), Portfolio Manager Command Element Systems (PfM CES), Program Manager Communications Systems (PM CS), Terrestrial High Capacity Communications (THC2) Team requests industry's interest and capability to provide a solution for a Non-Developmental Item (NDI) Optical Communication Transmission System (OCTS), related ancillary parts, antenna mast and integration/installation services which will provide a high bandwidth transmission path used for voice, video, and data communications. The proposed solution will be one component of a complete Line of Sight (LOS) transmission system consisting of Radio Frequency (RF) and Optical capabilities as outlined in RFI M67854-19-I-2010.

The OCTS consists of optical communication components, antenna mast, power source, cables, and ancillary equipment. The contractor will provide an OCTS as part of the solution per the requirements listed in Section 4.1 below. The requirements for the proposed combined RF and OCTS solution is listed in Section 4.2.

The purpose of this RFI is to determine industry interest in providing an OCTS and to seek feedback on the availability of NDI solutions. This RFI is for informational and planning purposes only and does not constitute a solicitation for bids or proposals and is not to be construed as a commitment by the Government. A Statement of Work is not available for release. This RFI is a market research tool to determine availability and adequacy of potential NDI sources prior to determining the acquisition strategy and issuing a Request for Proposal. The Government is not obligated to reimburse respondents for any information received from potential sources as a result of this RFI. The information provided herein is subject to change and in no way, binds the Government to solicit for, or award, a competitive or sole-source contract.

3. BACKGROUND

The Marine Corps intends to expand its LOS replacement communication system with an OCTS. The solution will be comprised of an NDI OCTS, GFP provided RF system and related ancillary equipment.

The anticipated Marine Corps requirement is for 638 systems.

4. REQUIRED CAPABILITIES

The required capabilities listed in this section of the RFI are the stated minimum and the respondent's solution described in the Capabilities Statement, detailed in Section 5.1.1, shall meet or exceed these requirements.

4.1. Optical Communication Transmission System Requirements

Parameter	Requirement
Federal Information Processing Standard (FIPS) 140-2 Certification	Optical communication systems shall be FIPS 140-2 certified for TRANSEC
Frequency	The Optical Transmission capability shall be capable of operation in a wavelength of 1530-1565 nm and a frequency range of 191,560 GHz to 195,943 GHz
Data throughput	Minimum 100 Mbps for each independent optical link with a Bit Error Rate (BER) equal to or less than 1×10^{-6} with link reliability of 90% as described in 4.1.1
Loopback	Data or transmission loopback capability for testing
Range	56km minimum
Interfaces	Mixed Fiber Optic Cable Assembly (MFOCA) and RJ-45 Ethernet IP interfaces
Power	Nominal 115VAC (80 to 132VAC) 47 – 66 Hz, single phase power
Operational Temperature Range	-40 C to +55 C
Storage Temperature Range	-40 C to +80 C

- 4.1.1. Describe the throughput and distances that your system can achieve while maintaining a Bit Error Rate (BER) equal to or less than 1×10^{-6} at 90% link availability in varying environmental conditions (salt fog, rain, snow, smoke, dust).

4.2. LOS Transmission System Requirements

Parameter	Requirement
Setup/Teardown /Establish Link	60 minutes (Setup) / 60 minutes (Teardown)
Personnel for Setup/Teardown/Link establishment	Three (3) male Marines
Mean Time Between Failure (MTBF)	720 hours
Inherent Availability A ⁱ	.9000 with 80% confidence
Mean Maximum Corrective Maintenance Time (MMACT)	Four (4) hours

5. ADMINISTRATION

In response to this RFI, the Marine Corps seeks a Capabilities Statement submission, discussing current/potential solutions to the capabilities described above. Interested parties are requested to provide an information package consisting of:

- A Capabilities Statement submission detailing the technical description of solutions to, or information on, the requested capability;

- A point of contact to set up follow-on meetings and a capability brief of available solutions, as required.

Questions and requests for clarifications on this RFI may be submitted to megan.brady@usmc.mil no later than **Monday, 11 March 2019 at 1:00pm**, local time, Quantico, Virginia.

5.1 RFI RESPONSES

Interested parties are requested to provide a Capabilities Statement addressing their approach to meeting the requirements listed above. Please send the requested information by e-mail only (Microsoft Word™ or .pdf attachments are preferred) no later than the closing date provided in paragraph 1. Information packages and all inquiries shall be emailed to MCSC_MC3_CONTRACTS@usmc.mil and megan.brady@usmc.mil. Please place attention: “Response to RFI M67854-19-I-2042” in the subject line of your e-mail.

Interested parties are requested to include the cover page with all submissions. Please be advised that submissions will not be returned. Vendors submitting confidential business information or proprietary information bear the sole responsibility for appropriately marking the information.

Respondents are requested to provide the company name; company address; company business size; point of contact (POC) name, phone number, fax number, and e-mail address; Data Universal Number System number; and business classification (i.e., large, foreign, small disadvantaged, veteran owned, minority owned, etc.).

5.1.1 Capabilities Statement Submission. The submission is limited to 25 pages, which includes Section One, Cover Sheet, and Section Two, Technical Description. Section One does NOT count towards the page count. Pages submitted in excess of the stated limits will not be read or evaluated.

- Files must be limited to 2 MB each. There may be multiple files submitted, but no one file may be larger than 2 MB.
- Files must not be submitted in a .ZIP file.
- Responses should be prepared in MS Word 2016 (or a previous compatible version) or PDF format (compatible with Adobe Reader XI).

5.1.1.1 Section One – Cover Sheet. The Cover Sheet should include the following information:

1. Technology Name
2. Company Name
3. Company Address
4. Point of Contact Name
5. Point of Contact E-mail
6. Point of Contact Phone
7. Point of Contact Phone

5.1.1.2 **Section Two – Technical Description.** Each electronic submission shall include:

- Your organization’s description of and capability to deliver an Optical Communication Transmission System.
- Provide Size, Weight, and Power requirements for your optical solution in both transport and deployed configurations.
- Laser safety or other certifications.
- Estimated production lead time, estimated system manufacturing rate, and an assessment of when production items can be delivered, e.g., Contract award + 30 days.
- A rough order of magnitude cost in lots of 25, incrementally to a total quantity of 638.
- Technology Readiness Level of optical communication transmission system and sub-systems.
- A description of your optical communication transmission system specifications, addressing each functional area within the requirements listed above.
- Description of capability to utilize USMC organic test equipment, or if unable, description of test equipment required for fault isolation and maintenance.
- Any current government agency contracts, i.e. General Services Administration, DoD, etc., from which your material solution may be procured.
- An explanation of what capability can be provided if you are unable to meet any of the above requirements.
- Manufacturer warranty for your solution. *
- Any test reports demonstrating your solution. *

**Note: Data/reports may be included as separate appendices and do not count against the page limit.*

6. NOTICE

Vendors are advised, the Government may use non-government personnel to assist in collecting and reviewing market information and in providing technical advice to the THC2 team. Proprietary information submitted in response to this RFI will be protected from unauthorized disclosure as required by Subsection 27 of the Office of Procurement Policy Act, as amended (41 U.S.C. 423) (hereinafter referred to as “the Procurement Integrity Act,” or “the Act”), and as implemented in the FAR. Supporting personnel are procurement officials within the meaning of the Act and will take all necessary action to preclude unauthorized use or disclosure of vendor’s proprietary data.

By submitting a response, a company will be deemed to understand that, and agree to, the Government allowing its support contractor, with the appropriate Non-Disclosure Agreement in place, to access any information submitted in relation to this RFI.