

Request for Information
Counter-Unmanned Air System (C-UAS) Modular Mission Payload (MMP)
25 March 2020

I. Description of Intent:

The Army Contracting Command-Detroit Arsenal, in conjunction with Product Manager (PdM), Appliqué and Large Unmanned Ground Systems (ALUGS) are issuing this Market Questionnaire for the Counter-Unmanned Air System (C-UAS) Modular Mission Payload (MMP) (C-UAS MMP) for use by the U.S. Army.

The objective of the Market Questionnaire is to better understand the availability and capabilities of commercial products and the potential of the associated equipment manufacturers. The information gathered by the Army through this Market Questionnaire, along with other market investigation data, is solely intended for use by the U.S. Army and will not be shared with any commercial entity. Participation in this Market Questionnaire provides an important opportunity to influence the Army's approach to procuring the C-UAS MMP.

This questionnaire is a Request for Information (RFI) ONLY and is not a solicitation for proposals; therefore, no questions will be taken at this time. A prototype project will not be awarded in response to this announcement.

If a solicitation for the C-UAS MMP project is issued in the future, it is intended to be issued under the Ground Vehicle Systems Other Transaction Agreement (GVS OTA), W15QKN-17-9-1025. The GVS OTA was awarded to the National Advanced Mobility Consortium (NAMC) under the authority of 10 U.S.C. § 2371b.

The U.S. Government is in no way liable to pay for or reimburse any companies or entities that respond to this announcement. Any costs incurred by interested companies in response to this announcement will NOT be reimbursed.

RESPONSE TIME: We thank you in advance, for your time and participation in this Market Questionnaire. **The U.S. Government requires all responses be returned by 3:00 pm, 08 April 2020 to Proposals@NAMConsortium.org.**

II. Instructions:

- a. Read the capability summary for the C-UAS MMP in Section III of this Market Questionnaire.
- b. Answer all of the questions in the Market Questionnaire in Section IV and spell out any acronyms in their first instance. If certain U.S. Army capabilities identified are deemed not available, or not achievable according to the respondent's company knowledge, please include alternate capabilities which would be intended to provide the intent of the capability described therein. It is the U.S. Army's desire to avoid "not applicable" (N/A) type answers to the maximum extent possible. Please provide yes/no and descriptive responses as appropriate to each question. Please provide supporting rationale, comments and recommendations as appropriate.
 - a. Please provide the projected development resources such as cost and timing to support the C-UAS MMP objectives. This information is essential in understanding

Request for Information
Counter-Unmanned Air System (C-UAS) Modular Mission Payload (MMP)
25 March 2020

the scope of the project. It is understood by the U.S. Army that this information is strictly a rough order of magnitude. The respondent's company is not contractually obligated by the provided information. The U.S. Army will use the information strictly as a means for gaining general knowledge. Please include cost and timing estimates for any alternate solutions.

- b. Provide product brochures or other forms of information (i.e. drawings, pictures, videos, etc.) relevant to this Market Questionnaire as is deemed appropriate. Additionally, the respondent is encouraged to provide any additional information that enables the U.S. Army to gain insight into the company, product performance, reliability and warranty performance. Brochures should be provided to substantiate responses in the questionnaire and should not be considered as a substitute.
- c. Clearly and conspicuously mark qualifying data with the restrictive legend (all caps) "PROPRIETARY" with an explanatory text so the U.S. Government is clearly notified of the data needing to be appropriately protected.
- d. In marking such data, please take care to mark only those portions of the data or materials truly proprietary (over breadth in marking inappropriate data as "PROPRIETARY" may diminish or eliminate the usefulness of your response). Use circling, underscoring, highlighting or other appropriate means to indicate the portion of a single page to be protected.
- e. The U.S. Government is not obligated to protect unmarked data. Additionally, marked data which is already in the public domain or in possession of the U.S. Government or 3rd parties, or is afterward placed into public domain by the owner or another party through no fault of the U.S. Government will not be protected once it is in the public domain. Data which is already in the possession of the U.S. Government will be protected in accordance with the government's rights in the data.
- f. Proprietary data transmitted electronically, whether by physical media or not, whether by the respondent or by the U.S. Government, will contain the "PROPRIETARY" legend, with any explanatory text on both the cover of the transmittal email and at the beginning of the file itself. Where appropriate for only portions of an electronic file, use the restrictive legends "PROPRIETARY PORTION BEGINS:" and "PROPRIETARY PORTION ENDS."
- g. In any reproductions of technical data or any portions thereof subject to asserted restrictions, the U.S. Government will also reproduce the asserted restriction legend and any explanatory text.
- h. The U.S. Government sometimes uses support contractors in evaluating responses. Consequently, responses which contain proprietary information may receive only limited or no consideration since the respondent's marking of the data as "PROPRIETARY" will preclude disclosure to non U.S. Government employees and therefore will preclude disclosure to these support contractors assisting the evaluation effort. The U.S. Government will use its best efforts to evaluate those responses that

**Request for Information
Counter-Unmanned Air System (C-UAS) Modular Mission Payload (MMP)
25 March 2020**

contain proprietary information without using support contractors consistent with the resources available.

III. Capability Summary for C-UAS MMP

The Government is seeking a Counter Unmanned Air System (C-UAS) modular mission payload prototype to mitigate the threat of Class I and II UAS and enhance force protection for dismounted infantry. Class 1 and 2 UAS threats are defined as tactical low end, lethal, small, miniature, and micro systems. Prototype systems will primarily focus on detection and tracking of UAS, but may also support other phases of the kill chain. C-UAS system will consist of low size, weight, and power (SWaP) technologies. The capabilities sought through this acquisition shall allow the dismounted infantry to avoid detection over a 60 mile movement, 72 hour duration mission through militarily significant environments including all terrain conditions (desert, wooded, wetlands, etc.) and urban environments. The Government will integrate and conduct safety/user evaluation of the C-UAS capability on the Small Multipurpose Equipment Transport (S-MET) platform. These evaluations will inform the production of the C-UAS MMP requirements document, and also inform performance specifications for this MMP for the S-MET Program of Record.

IV. MARKET QUESTIONNAIRE: The market questionnaire consists of two parts, Business Information and Technical Questions.

PART 1. BUSINESS INFORMATION: Please provide the following Administrative information as the first section of your submission.

1. Manufacturer

- a. Company Name (and any former names):
- b. Traditional or Non-Traditional Contractor:

*Non-Traditional Contractor: An entity that is not currently performing and has not performed, for at least the one-year period preceding the solicitation of sources by DoD for the procurement or transaction, any contract or subcontract for the DoD that is subject to full coverage under the cost accounting standards prescribed pursuant to section 1502 of title 41 and the regulations implementing such section (see 10 U.S.C. 2302(9)).

- c. Mailing Address:

2. Personnel Responding to this Survey

- a. Name:
- b. Title:
- c. Company Responsibility/Position:

Request for Information
Counter-Unmanned Air System (C-UAS) Modular Mission Payload (MMP)
25 March 2020

d. Telephone/Fax Numbers:

e. E-mail address:

PART 2. Technical Questions: Please provide responses to the following Technical Questions:

1. Discuss the ability of the proposed technologies to increase the dismounted Infantry platoon abilities in each of the following areas as relevant to your proposed system: Lethality, Mobility, Protection, Situational Awareness, Endurance, and Persistence.
2. Discuss the ability of the system to support Cross-Domain Maneuver in Ground, Air, Water, Cyber, and Space.
3. Discuss how the system can meet all or most of the system capabilities in the kill chain:
 - a. Detect, locate, and track potential targets
 - b. Identify, classify, and evaluate targets as Unmanned Air System(s)
 - c. Engage and defeat (neutralize) Unmanned Air System(s)
4. Discuss system performance criteria, their definitions, their specific performance values (specify min/max where applicable and particular conditions/constraints), and how they are relevant for the proposed solution. Performance criteria to include detection range, azimuth, elevation, probability of detection, multiple source detection, reflection discrimination, false alarm rate, time to mitigate threat, and built-in-test.
5. Discuss your companies experience developing C-UAS and related systems.
6. Can the system be dismounted for temporary dismount operations? Discuss assumptions, constraints, and requirements outside of the proposed systems for dismount operations.
7. Discuss physical characteristics of system including volume, weight, envelop of operation, and mounting requirements. Does the system require permanent platform modification which will interfere with the payload carrying capability and capacity (i.e. area, volume, gross vehicle weight) of the S-MET (TBD) platform while the system is not mounted to the platform?
8. Will the system be capable of setup/teardown/mount on/off the platform by a single Soldier?
 - a. Are Special tools required?
9. Discuss the systems need for soldier-in-the-loop. Discuss warnings, cautions, and alerts provided by system to minimize operator attention or input when not responding to a detected threat.
10. Can the system operate using only the power supplied via various interfaces including the NATO slave interface, and 28 VDC (1.5 kW/ 3.0 kW) IAW MIL-STD-1275? Specify the power consumption profile for the system.

Request for Information
Counter-Unmanned Air System (C-UAS) Modular Mission Payload (MMP)
25 March 2020

11. Identify size, weight, and power (SWaP) requirements/considerations/constraints beyond the scope of any specific questions in this RFI.
12. Is the system compatible with IOP v3.0? If not, what is a rough order of magnitude estimate of the time and cost to become compliant? The IOP v3.0 is available for download from NAMC website at <https://www.namconsortium.org>.
13. Identify the acoustic, thermal, electromagnetic, and other signatures from the proposed system.
 - a. Discuss the system's ability to operate in a passive mode(s) if any
14. Discuss how system can withstand hazards consistent with performing while mounted to mobile platform in environments which dismounted Infantry typically operate.
15. Provide an estimated schedule to develop a single system.
16. Provide cost estimates for a single prototype system and estimate of unit cost if the proposed system were to enter production under a Program of Record.

PART 3. Additional Information: The following platform information is provided to support design considerations of the proposed solution.

1. Government will provide a Government Furnished Equipment (GFE) to S-MET integration contractor.
2. C-UAS MMP contractor will work with S-MET integration contractor in support mode to integrate the capability on the platform.
3. Government has not down selected S-MET platform for the Program of Record. C-UAS should propose a solution that is to be integrated on to one of the platforms described below upon completion of the OTA Project that follows this RFI.
 - a. Platform A
 - i. Platform (L x W x H): 116 in x 66 in x 42 in
 - ii. Bed (L x W x H): 102 x 59 x N/A in
 - iii. Curb/Gross/Cargo (lbs): 2650, 3850, 1000 Plus
 - iv. Auxiliary Power: NATO slave interface, and 28 VDC (1.5 kW/ 3.0 kW) IAW MIL-STD-1275
 - b. Platform B
 - i. Platform (L x W x H): 96 in x 55 in x 47 in
 - ii. Bed (L x W x H): 62 x 54 x N/A in
 - iii. Curb/Gross/Cargo (lbs): 3600, 4600, 1000 Plus
 - iv. Auxiliary Power: NATO slave interface, and 28 VDC (1.5 kW/ 3.0 kW) IAW MIL-STD-1275
 - c. Platform C
 - i. Platform (L x W x H): 100 in x 59 in x 45 in
 - ii. Bed (L x W x H): 65 x 56 x N/A in
 - iii. Curb/Gross/Cargo (lbs): 2600, 3600, 1000 Plus
 - iv. Auxiliary Power: NATO slave interface, and 28 VDC (1.5 kW/ 3.0 kW) IAW MIL-STD-1275