Lightweight Machine Gun – Assault

PROBLEM STATEMENT

USSOCOM through NSWC Crane is seeking a lightweight man portable select fire belt-fed weapon chambered in 7.62 NATO to act as the lifecycle replacement for the aging MK48 series of weapons. The goal is to replace the weapon while integrating advancements in material, manufacturing, and technology to provide the operators with a technically superior weapon. This weapon system will allow an operator to effectively shoot, maneuver, and lay down suppressive fire. The combination of the rate of fire and recoil of the weapon system will allow the operator to effectively engage targets at all distance within its effective range. The system will be interoperable with USSOCOM's suite of Visual Augmentation Systems and Weapon Accessories (VASWA) and existing M240B tripods (to include the M192, M122A1, and M125). The MK48 series of weapons (including the MOD2) utilize traditional machine gun top covers which do not support VASWA as effectively as weapons with a monolithic or continuously timed top rail. The ability to swap calibers and accept high pressure ammunition is vital to addressing future combat needs and will be considered during this program. Weapon submissions that address USSOCOM's technology priorities will benefit during the selection processes.

- **Monolithic or Continuous Top Rails**: A monolithic top rail and a continuous top rail (that is uninterrupted) allows for the maximum flexibility for VASWA with lessened risk for any zero shift. An interrupted but continuously timed top rail is of interest to USSOCOM as well; however a single continuous rail is preferred.
- **High Pressure Ammunition**: The ability to accept high pressure ammunition is of interest to USSOCOM. The development of a conversion kit for high pressure ammunition will be a collaborative effort between the GOV and the proposer's.
- **Novel Recoil Technology**: USSOCOM is interested in novel recoil mitigation technology. The primary interest is that the weapon firing rate and recoil impulse when considered together allow for the operator to effectively engage targets.

PROPOSED SOLUTION

A successful solution will be contingent on the completion of the Proposer's Shoot, Limited Safety, User Evaluation, Product Verification Testing (PVT), and Operational Testing (OT). Some of the technical attributes are listed below. A solution brief's Technical Merit and

Relevance will be based on the ability to meet the primary attributes and the cumulative evaluation of the secondary solution attributes/capabilities:

Primary Attributes:

- The LMG-A maximum weight with standard rail interface, carry handle, bipod attached, buttstock, and barrel shall be less than or equal to 17 lbs. Sights and other accessories will not be included in the weight requirement.
- The LMG-A will have a maximum length of 40 inches. Measurement will be taken with buttstock collapsed (not folded), to the muzzle device.
- The standard barrel length should be greater than or equal to 16”
- The LMG-A bipod shall be replaceable at the operator level, and capable of height adjustment, locking with loading (Cant/Pan/Tilt).
- The LMG-A shall utilize 18” of total MIL-STD 1913 rail architecture for the 12 o’clock rail that is timed for height and alignment, 10” of which in front of the feed tray.
- The LMG-A safety selector should operate from Safe, Automatic, and Semi-Automatic
- The LMG-A shall be capable of functioning while pulling the equivalent weight of 100 linked rounds of the selected caliber cartridge weight.
- The LMG-A shall include an ammunition storage mounting point (equivalent to MK48 MOD2) and ammunition storage system that can secure a minimum of 100 linked 7.62mm rounds.
- The LMG-A shall be capable of safely firing 7.62mm NATO ammunition.
- The LMG-A shall have a minimum cyclic rate of 400 rpm and a maximum cyclic rate of 650 rpm.
- The LMG-A shall be functional when suppressed.
- The LMG-A shall support left-hand feeding of belted ammunition.
- The LMG-A receiver shall display identification markings addressing weapon nomenclature and serial number.
- Does not present a safety hazard to the operator if fired with an obstructed bore.

Secondary Attributes:

- Side Folding, collapsible Buttstock that locks into position and allows charging and firing of weapon.
- 2 Position/Folding Charging Handle.
- Capable of integrating into existing M240 cradle mounts.
- All flash hiders/muzzle devices should be removable at the organizational level with standard tools.
- Have the ability to mount accessories on the forward end of the weapon at the 3 and 9’oclock position via Picatinny rail.
- Have 6 inches of M1913 Picatinny rail at the 6 o’clock position of the forward rail.

- Have a system to positively retain ammunition on the feed tray while the top cover is open.
- Capable of charging the weapon when the weapon is on safe.
- All components and assemblies are interchangeable with other like components.
- Incapable of improper assembly at the fieldstrip level to the detriment of functioning or safety.
- Function with high pressure ammunition to allow for future development.
- The recoil impulse low enough to facilitate effective employment of the LMG-A to its max effective range day or night.
- Survive drop testing without bolt moving from locked open position.

SUBMISSION GUIDANCE

PHASE I – White Papers

White papers shall include information on the estimated cost per weapon, an estimated timeline to deliver the prototypes, and any risk proposers foresee with the development of the weapon (to include concerns with the above technical aspects). All whitepapers must contain images of the proposed weapon. A minimum TRL of 6 is required.

All white papers will be retained by the Government for a period of 24 months, and proposers may be contacted by the Government to gauge interest within that time to continue with the proposer's solution. Proposers are not guaranteed to be contacted if not chosen after down-selection nor are they beholden to perform if they no longer wish to carry forward with their original proposal.

All other procedures will follow the originally posted CSO N0016425SC0001.

Phase II – Pitch Day

If selected to move forward from the white paper evaluation, then proposers will be asked to participate in a pitch day. The pitch day will consist of an in-person meeting between the proposer's and the GOV. Proposers will provide a weapon demonstration of their weapon during pitch day.

Ammunition will be provided. Primary ammunition will be M80A1 and secondary will be M80. Estimated round count for the demonstration will be 200 rounds.

Presentation will happen immediately after the proposer's demonstration. Pitch duration will not exceed 30 minutes to include questions and answers.

Location: SOFWERX 1925 East 2nd Avenue, Tampa, FL 33605 or NSWC Crane. Whitepapers due Jan 9th 2026. Vendors notified for Pitch meeting Jan 23rd . Pitch Meeting Feb 11/12.

Pitch day location will be determined before RPP.

Phase III – Request for Prototype Proposal (RPP)

RPP process will remain in alignment with the original CSO N0016425SC0001

An individual proposer's or team of proposer's should not submit multiple solution briefs to the AOI, unless each individual solution is substantively unique. If submitted as a team, the first page of the solution brief should list each company on the team and a primary point of contact for each company on the team as well as the lead proposer's and point of contact for the overall team.

NOTE: In accordance with NSWC, Crane CSO N0016425SC0001: The government reserves the right and ability to facilitate introductions of proposer's with complementary capabilities. If teaming introductions by the government are provided, a proposer's is not obligated to act on the recommendation. If a proposer's elects to move forward in accordance with a government-recommended teaming arrangement, a Phase II pitch deck will be requested by NSWC, Crane in order to facilitate a complete evaluation of the jointly proposed solution.

FOLLOW-ON PRODUCTION

Companies are advised that any prototype Other Transactions (OT) agreement awarded in response to this Area of Interest may result in the award of a follow-on production contract or transaction without the use of further competitive procedures. The follow-on production contract or transaction will be available for use by one or more organizations in the Department of Defense and, as a result, the magnitude of the follow-on production contract or transaction could be significantly larger than that of the prototype OT. As such, any prototype OT will include the following statement relative to the potential for follow-on production: "In accordance with 10 U.S.C. 4022(f), and upon a determination that the prototype project for this transaction has been successfully completed, this competitively awarded prototype OT may result in the award of a follow-on production contract or transaction without the use of competitive procedures."

ELIGIBILITY REQUIREMENTS

This solicitation will be awarded in accordance with the Commercial Solutions Opening (CSO) process detailed within N0016425SC0001 Naval Surface Warfare Center, Crane's Commercial Solutions Opening posted to SAM.gov. In accordance with 10 U.S.C. 4022(d), at least one of the following conditions must be satisfied to enter into a prototype OT agreement: (A) at least one nontraditional defense contractor or nonprofit research institution participating to a significant extent, (B) all significant participants are small businesses or nontraditional defense contractors, or (C) at least one third of the total cost of the prototype project is to be paid out of funds provided by sources other than the Federal Government.

White papers must be submitted electronically in PDF format to POC's listed below via email by January 09, 2026, 5:00 PM EST.

Questions or clarifications may be directed to NSWC, Crane POC for Q&C at email by Q&A Deadline, January 5, 2026.

Late submissions will not be considered.

Additional Notes:

Contractors from the following companies will be advising the assessment team.

Frontier Technology Inc. Defense (FTI Defense)
4141 Colonel Glenn Hwy, STE 140
Beavercreek, OH, 45431

Kellogg Brown & Root (KBR)
601 Jefferson St.
Houston, Tx. 77002

Confidentiality

All information provided in this AOI and subsequent proposals will be treated in confidentiality and used solely for the purpose of this evaluation. Proposer's are expected to maintain confidentiality regarding proprietary information shared during the process.

Contact Information

For inquiries or submissions, please contact:

Primary POC
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Link to the original SAM CSO Posting listed below for reference:
https://sam.gov/workspace/contract/opp/1f683f742b9f4a30b0d1020ceb4e4385/view