

## **SOCOM213-003: Stand-Off Precision Guided Munitions in a Contested Environment**

### **MODERNIZATION PRIORITIES:**

Artificial Intelligence/ Machine Learning, Autonomy, Control and Communications, General Warfighting Requirements (GWR), Microelectronics, Network Command

### **TECHNOLOGY AREA(S):**

Air Platform, Electronics, Sensors, Weapons

### **OBJECTIVE:**

The objective of this topic is to develop applied research toward an innovative capability to employ Stand Off Precision Guided Munitions (SOPGM) in a Global Positioning System (GPS) Contested Environment. SOPGMs of topic are launched from a Common Launch Tube (CLT) on Air Force Special Operations Command (AFSOC) aircraft.

### **ITAR:**

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), 22 CFR Parts 120-130, which controls the export and import of defense-related material and services, including export of sensitive technical data, or the Export Administration Regulation (EAR), 15 CFR Parts 730-774, which controls dual use items. Offerors must disclose any proposed use of foreign nationals (FNs), their country(ies) of origin, the type of visa or work permit possessed, and the statement of work (SOW) tasks intended for accomplishment by the FN(s) in accordance with section 3.5 of the Announcement. Offerors are advised foreign nationals proposed to perform on this topic may be restricted due to the technical data under US Export Control Laws.

### **DESCRIPTION:**

Innovative research on this topic is open to a variety of innovative CONOPS and technology implementations. The proposed innovative solution may be a CLT compatible addition to the existing SOPGM Family of Munitions which currently includes the AGM-176 Griffin and GBU-69/B Small Glide Munition (SGM). To fit in the System CLT, a munition must be no greater than 100 pounds, 42 inches in length, and 5.95 inches in diameter. The proposed innovative solution may augment or replace the existing GPS signal for Position, Navigation, and Timing (PNT) or provide a novel approach to navigate the munition to the target. As a part of this feasibility study, the proposers should address all viable overall system design options and investigate the capability trade space as it relates to CONOP, mission profile, accuracy, range, data link, environmental considerations, mid-course and terminal guidance.

### **PHASE I:**

Conduct a feasibility study to assess what is in the art of the possible that satisfies the requirements specified in the above paragraphs entitled "Objective" and "Description."

The objective of this USSOCOM Phase I SBIR effort is to conduct and document the results of a thorough feasibility study ("Technology Readiness Level 3") to investigate what is in the art of the possible within the given trade space that will satisfy a needed technology. The feasibility study should investigate all options that meet or exceed the minimum performance parameters specified in this write up. It should also address the risks and potential payoffs of the innovative technology options that are investigated and recommend the option that best achieves the objective of this technology pursuit. The funds obligated on the resulting Phase I SBIR contracts are to be used for the sole purpose of conducting a thorough feasibility study using scientific experiments and laboratory studies as necessary. Operational prototypes will not be developed with USSOCOM SBIR funds during Phase I feasibility studies. Operational prototypes developed with other than SBIR funds that are provided at the end of Phase I feasibility studies will not be considered in deciding what firm(s) will be selected for Phase II.

### **PHASE II:**

Develop, install, and demonstrate a prototype system determined to be the most feasible solution during the Phase I feasibility study on a Stand-Off Precision Guided Munitions (SOPGM) in a Contested Environment.

### **PHASE III DUAL USE APPLICATIONS:**

This system could be used in a broad range of military applications where a requirement exists for delivery or placement of payloads, sensors, or munitions inside a GPS Contested Environment.

**REFERENCES:**

1) Systima Technologies, Inc, Aircraft Payload Integration, Common Launch Tube (CLT) <https://www.systima.com/aircraft-payload-integration/>;

2) Systima Technologies Hits Major Milestone in Launch Tube Deliveries, 12 March 2019, <https://www.systima.com/blog/systima-technologies-hits-major-milestone-in-launch-tube-deliveries/> ;

3) SOCOM Replenishing Precision-Guided Weapon Stockpiles  
<https://www.nationaldefensemagazine.org/articles/2018/5/11/socom-replenishing-precision-guided-weapon-stockpiles#:~:text=Dynetics%27%20standoff%20precision%2Dguided%20munition,systems%2C%20according%20to%20the%20text=The%20kits%20will%20provide%20SOF,munitions%20and%20other%20weapon%20systems>

**KEYWORDS:**

Weapons; Missile; Munition; Special Operations; Standoff; Precision; Guidance; Global Positioning System; Navigation; Denied; Contested; Common Launch Tube.

**TPOC USERS:**

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