

SOCOM213-008: Remote Sniper Heads Up Display

MODERNIZATION PRIORITIES:

General Warfighting Requirements (GWR)

TECHNOLOGY AREA(S):

Battlespace, Electronics, Human Systems, Sensors, Weapons

OBJECTIVE:

The objective of this topic is to develop applied research toward an innovative capability that will allow operators to view critical target data from the LA-24/PEQ Precision Aiming Laser (PAL) while maintaining security and situational awareness. This capability shall meet the requirements in the description below.

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:

The Special Operations Forces (SOF) Sniper is faced with a dynamic battlefield and evolving enemy. SOF has recently began fielding 7-35 power scopes in conjunction with the highly accurate, long range MK22 Advanced Sniper Rifle (ASR) weapon system, as well as the continued fielding of the existing family of sniper rifles and designated marksmen rifles. A light weight, compact, rifle-mounted heads up display (HUD) is needed in order for the SOF Sniper to maintain the lethal advantage. A HUD that puts real-time information from the LA-24/PEQ to the operator's non-shooting eye for rapid engagement of multiple targets is required.

This topic is seeking information regarding advanced technology pertaining to advancements in materials, miniaturization, weight reduction, and weapon shock and environmental durability.

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 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 known 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 up to 12 prototype systems determined to be the most feasible solution during the Phase I feasibility study on a Remote Sniper Heads Up Display (RSHUD) units that will allow operators to rapidly receive live ballistic information from the LA-24/PEQ and engage multiple targets. This capability shall meet the requirements in the description above. The testing and demonstration will contain scenarios, environments, and test objectives to demonstrate program and operational objectives.

PHASE III DUAL USE APPLICATIONS:

This RSHUD could be used for rapid target acquisition for Sniper weapons and Designated Marksman Rifles as well as potentially machine guns in a broad range of military, law enforcement, and homeland security applications.

REFERENCES:

1) MIL-STD-810H DEPARTMENT OF DEFENSE TEST METHOD STANDARD ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS (<https://quicksearch.dla.mil/ImageRedirector.aspx?token=5755401.35978>);

2) MIL-STD-1913 NOTICE 1 MILITARY STANDARD DIMENSIONING OF ACCESSORY MOUNTING RAIL FOR SMALL ARMS WEAPONS (https://quicksearch.dla.mil/qsDocDetails.aspx?ident_number=115317);

3) Interface Control Document (ICD) for Weapon Mounted Ballistic Calculators and Micro-Displays Revision D.

KEYWORDS:

Display; Micro-display; Sniper; Optics; Direct View Optics; Target Engagement

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