

SOCOM244-002: Thermal Reflex Sight

ADDITIONAL INFORMATION

N/A

TECHNOLOGY AREAS:

Electronics | Sensors

MODERNIZATION PRIORITIES:

Advanced Materials | Human-Machine Interfaces

KEYWORDS:

Thermal Weapons Sight; Reflex Sight; Long Range Infrared; LWIR; Close Quarters Battle

OBJECTIVE:

The objective of this topic is to research and develop an innovative weapon mounted capability that will be employed in short to medium range target engagement scenarios both day and night by Special Operations Forces.

IMPORTANT: For SOCOM instructions: please visit: <https://www.defensesbirsttr.mil/SBIR-STTR/Opportunities/>. Go to the bottom of the page and click "DoD SBIR 24.4 Annual". Once there, go to the SOCOM SBIR OR STTR 24.4

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 Thermal Reflex Sight (TRS) feasibility study shall address all viable system design options that allows for an assaulter to simultaneously wear head-borne night vision goggles and be able to engage targets with the TRS sight. The TRS sight should be the combination of a long wave infrared thermal weapons sight and a reflex day optic sight to accommodate targeted engagements in varied lighting conditions. Unlike a clip-on thermal weapons sight, the TRS should be a standalone weapon mounted sight that is affixed to the weapons picatinny rail for day/night operational use. The TRS should be optimized for short to medium range engagements. However, USSOCOM will transmit on the side of shorter-range engagements to optimize the best form factor for inventoried assault rifles. The TRS should not be a "shoot from the hip" weapons sight. The operator will be able to view targets in the ready-up position where the weapons buttstock is positioned in the shoulder area.

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 Thermal Reflex Sight.

PHASE III DUAL USE APPLICATIONS:

This system could be used in a broad range of military applications across all USSOCOM components, other government agencies, and federal law enforcement.

REFERENCES:

1. 1. Infantry Platoon and Squad
2. Army Training Publication (ATP) 3-21.8
3. April 2016
Army Training Publication (ATP) 3-21.8: Infantry Platoon and Squad

TOPIC POINT OF CONTACT (TPOC):

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