

**STATEMENT OF OBJECTIVES
FOR
Target Location Device (TLD)**

I. INTERNATIONAL TRAFFIC AND ARMS REGULATION: The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), which controls the export and import of defense-related material and services. Vendors must disclose any proposed use of foreign nationals, their country of origin, and what tasks each would accomplish in the statement of work in accordance with the solicitation.

II. BACKGROUND: Ground forces require an improved capability to precisely fix-finish known enemies in an operationally relevant scenario. Currently, forces use map data, which is hard to get, or lengthy talk-ons for fixed and rotary wing close air support (CAS). Map data, while useful, is not always updated and cannot be used for personnel or moving targets. Ground systems have precision munitions and ground forces require coordinates with enough fidelity to maximize effectiveness of these precision munitions.

TLD is an acquisition project with the objective to streamline developmental efforts and field high accuracy target location technology in a rapid acquisition environment.

III. OVERALL OBJECTIVES: In order to reduce fratricide, collateral damage, and ensure optimal target engagement the TLD must generate highly accurate coordinates in a timely and operationally relevant manner. The required Target Location Error (TLE) for multiple scenarios the military personnel may encounter is defined by Table 1: Target Location Accuracy within the Statement of Objectives Attachment 01 - TLD Characteristics.

This effort will acquire prototypes to demonstrate technology that can generate highly accurate coordinates for target objects located at various ranges.

The military personnel using the device is expected to be mobile immediately before and after determining a coordinate, and thus any potential solution requiring use of a stationary tripod is expected to be operationally unacceptable.

The military personnel using the device is expected to be located near ferrous materials or in a magnetically dynamic environment, and thus any potential solution using Earth's magnetic field is expected to be unreliable.

The military personnel using the device is expected to be in diverse conditions where lines, vines, branches, buildings, clouds, or aircraft may be partially obstructing a view of the sky/stars above. Solutions utilizing a view of the sky/stars are expected to overcome these challenges.

The military personnel using this device is expected to have access to highly accurate map data. Solutions to fulfill this requirement are expected to effectively and efficiently interact with this map data. Reference information in Paragraph V.

IV. DELIVERABLES:

A. PROTOTYPE DELIVERABLES: Identified within each Phase below in Technical Requirements. Delivery Location: TBD

B. TRAVEL COSTS: The Performer is responsible for travel costs incurred to the demonstration site.

C. DOCUMENT DELIVERABLES: The Performer shall provide the following documents

1. Monthly Status Reports
2. Final Report

V. GOVERNMENT FURNISHED PROPERTY (GFP) / GOVERNMENT FURNISHED EQUIPMENT (GFE) / GOVERNMENT FURNISHED INFORMATION (GFI):

The Android Tactical Assault Kit (ATAK) ICD will be made available as GFI to the Performer.

Performers successfully meeting the requirements of Phase 1, who are selected to continue with Phase 2, will be provided their Phase 1 prototype as GFE.

VI. DEMONSTRATION DAYS:

PHASE 1 – Evaluation of day/night capability that is TRL 4 or above. Government expects performer to be at the demonstration and operating the prototype deliverable. The range, targets, and procedure will be the responsibility of the Government. Technical requirements for this phase are defined in section VIII of this document.

PHASE 2 – Evaluation of day/night capability that is TRL 6 or above. Government expects performer to be at the demonstration and providing instruction and oversight to the Government users. The range, targets, and procedure will be the responsibility of the Government. Technical requirements for this phase are defined in section VIII of this document.

VII. TRAVEL REQUIREMENTS: Travel is required for the Performer to demonstrate and deliver their prototype to the Government. Location TBD

VIII. TECHNICAL REQUIREMENTS

PHASE 1

The performer shall deliver a prototype that is TRL 4 or above. The prototype shall be able to meet the TLE thresholds while operating in all Scenarios of the Target Location Accuracy table in SOO Attachment 1 – TLD Characteristics. In order to be eligible for Phase 2, the performer must be successful while acquiring the location of targets not closer than 1000 meters from the prototype during daytime. In order to be eligible for Phase 2, the performer must be successful while acquiring the location of targets not closer than 500 meters from the prototype during nighttime.

PHASE 2

The performer shall deliver a prototype that is TRL 6 or above. The prototype shall be packaged in a handheld, final form factor. In order to successfully complete the prototype project and be eligible for production, the prototype shall comply with the requirements in SOO Attachment 1 – TLD Characteristics.

Referenced Documents:

1. Statement of Objectives Attachment 01 - TLD Characteristics