TENDER SPECIFICATION OF TRACKING TRAINER SYSTEM – CENTRE FOR NAVAL RESEARCH AND DEVELOPMENT (CNRD)

INTRODUCTION

1. For better understanding and to evaluate all the prospective BIDDERS on same platform, the tender specification has been divided into three parts:

   a. **Part-1**: General Information and BIDDER'S Responsibility.

   b. **Part-2**: Operational and Technical Specification.

   c. **Part-3**: General Terms and Conditions.

2. Prospective BIDDERS are to comply with the requirements and terms & conditions mentioned in Part-1, Part-2, and Part-3 of the tender specification. BIDDERS are also to provide performance/ technical data, brochure, specific figures, and information as asked against each condition.

3. Prospective BIDDERs are to submit their offer in two envelopes:

   a. Technical Offer.

   b. Financial Offer.

4. BIDDER shall comply all the terms and conditions of the tender documents as compliance statement by the Bidder under the following tabular format:

Tender Article No	**Description of Terms and Conditions (as mentioned in Part-1, Part-2 and Part-3 of the Tender)**	**Compliance/ Remarks by Principal/ manufacturer** (To be agreed/To be mentioned with detail explanations)

The financial quote is to be submitted separately in foreign currency on FOB basis, but compliance/remarks are to be indicated in the technical offer.

PART I : GENERAL INFORMATION AND BIDDER'S RESPONSIBILITY

5. Bangladesh Navy (BN) plans to procure **Tracking Trainer System** generally known as Electro-Optic Tracker System (Qty: 01 Set).

6. **Installation Site**. Centre for Naval Research and Development (**CNRD**) at Chattogram Naval Area.

7. **Site Visit Prior Tender Submission**. Prospective bidder may visit the installation site to estimate installation materials and works (including requirement of any supporting structure to install the offered system etc) involved in installation works before submission of offer to avoid any difficulties/ confusion after placing order. Site survey report has to be submitted by the bidder with offer in this regard. Bidder may send application to BN through DGDP for security clearance 04 (Four) weeks prior to said site survey.

8. **Qualification for Bidder**. Manufacturers of Electro-Optic Tracker System or their authorized distributor/ agent can submit quotations through their authorized local agent enlisted in DGDP. In case of offer from distributor/ agent, certificate of dealership/ agencyship from OEM is to be submitted with the offer. In this regard the following certificates are to be submitted with the offer (if not OEM):

a. Authorization Certificate from OEM.

b. Supply Assurance Certificate from OEM.

c. Assurance Certificate for Interfacing and Training from OEM.

9. **Compliance Statement.** A compliance statement fulfilling all the requirement of the tender is to be submitted for evaluation of the quotations. Stating mere 'Yes or No' will not suffice and detailed evidences with description/ information, brochures/ booklet, drawing and diagram as required is to be given. An incomplete compliance statement may attribute to cancellation of the offer. If any clause of this specification does not commensurate with the offered Electro-Optic Tracker System, the deviation has to be spelt out clearly.

10. **Equipment Manufacturer and Reliability/ Requirement.** The items should be brand new, unused and of recent model, proven reliability in the field of operation. The supplier shall ensure the continuity of the operation and availability of necessary spares for at least 15 years each in case of obsolete model over time.

11. **User List.** List of users of the offered system is to be mentioned with full address. The list shall provide the name of various navies/coastguards with respective model and brand of offered system. The system should be widely used by various navies/ coastguards. The user list will be used for the assessment of the offer.

12. **Condition for Acceptance of Quotation.** The quotation has to have supporting documents (booklets, leaflets, catalogues, brochures etc) with details about offered Electro-Optic Tracker System. If detailed information regarding specifications, manufacturer's manuals and catalogue for the quoted model of the Electro-Optic Tracker System, spare parts, accessories, scope of supply, etc are not provided the quotation will not be accepted.

13. **Acceptance/ Rejection of Bid.** DGDP/ BN reserves the right to accept or reject any bid or to terminate the bidding process and reject all bids at any time prior to the contract award (without thereby incurring any liability to the BIDDER).

14. **Validity.** The offer shall remain valid till 30 June 2025.

PART- II: OPERATIONAL AND TECHNICAL SPECIFICATION

15. **Name of Equipment.** Tracking Trainer System.

16. **Purpose.** The purpose is to procure an advanced Electro-Optic Tracker System to train BN personnel who all are involved in integration, interfacing and research.

17. **Basic Requirement.** The basic requirement is to procure an advanced Electro-Optic Tracker System to enhance BN capability in interfacing with combat management system. The primary requirement for the system is to receive initial target information as input, track the real-time target, and process this data to provide real-time target tracking information. This information will used as output to operate a fire control system, such as a gun or missile, ensuring it can accurately trace and engage real-time targets. This procurement aims to facilitate comprehensive training and operational proficiency in target tracking, including detailed instruction on the communication protocols, configuration of input and output interfaces, procedures to provide initial target information, real-time data processing, understanding data formats, procedures of real-time target acquisition and tracking, interpreting/utilizing tracking data for fire control operations and also configuring and calibrating the Electro-Optic Tracker System for optimal performance with high data accuracy.

18. **Quantity.** 01 (One) Complete set.

19. **Type.** Marine type (To be mentioned).

20. **Brand.** To be mentioned.

21. **Model.** To be mentioned.

22. **Country of Origin.** UK, France, Netherlands, Italy, USA, Canada and Denmark (To be mentioned).

23. **Manufacturing Country.** UK, France, Netherlands, Italy, USA, Canada and Denmark (To be mentioned).

24. **Original Equipment Manufacturer (OEM).** Name & Full address with telephone number and e-mail of OEM to be mentioned.

25. **Principal/ Supplier/ Bidder.** Name & Full Address with telephone number and e-mail of Principal Supplier is to be mentioned.

26. **Local Agent.** Name & Full Address with telephone number and e-mail of Local Agent is to be mentioned.

27. **Year of Manufacturing.** 2024 or later.

28. **Classification Standard.** The Electro-Optic Tracker System along with associated accessories offered/supplied under the scope of the supply are to be designed, constructed/ manufactured and tested up to the requirement of IEEE/ IEC, IALA, IMO/ MIL-Standard and it shall comply other referenced international standards. The applicable classification standard(s) of the offered item is to be mentioned and should be well supported by the brochures/ certificates.

29. **Environmental Condition and Other Standard.** The required environmental conditions are as follows:

a.	Temperature	: 0 °C to 55 °C.
b.	Relative Humidity	: Up to 95%non-condensing.
c.	For Vibration	: IEC-60945 or equivalent (To be mentioned).
d.	EMI/EMC	: IEC 60945 or equivalent (To be mentioned).

30. **General Features.** The general feature of offered system shall be as follows:

a. IR and Daylight TV camera.

b. Most advanced optronic subsystem determining the precise aiming parameters for the weapon system by optically tracking targets.

c. Electronic alignment of sensors.

d. Image recognition.

e. Fully automatic search, detection and acquisition reducing operator workload.

f. High performance processing techniques including multilevel threat discrimination.

g. Weapon system management for fire control.

h. Target video tracking with information about target distance, bearing, speed, course, CPA etc.

j. Capable to handle external tracking requests.

k. Built In Test Equipment (BITE) on the control unit to detect fault.

l. Rugged multifunctional compact console (Operating Console Unit) with Powerful software for ballistic calculations for several types of weapon systems (guns, missiles, etc.).

31. **Power Supply Available at Installation Site**. The power supply available is 220V ±5%, single phase. Any other power supply unit is to be provided by the supplier (if necessary).

32. **Scope of Supply**. The scope of supply are as follow (but not limited to):

a. 01 x Complete sets of Electro-Optic Tracker System with Standard Accessories (as per article 34a).

b. Certification and Reports (as per article 34b).

c. Drawing and Manual/ Documentation (as per article 34c).

d. Message Protocol, Data Format with Interface Control Document (ICD), Interface Requirement Specification (IRS) and Software (as per article 35).

e. Spares (Optional) (as per article 36).

f. Factory Acceptance Test (FAT) (as per article 37).

g. Foreign Training (as per article 38).

h. Local Training (as per article 39).

j. Installation, Supervision and Setting to Work (STW) (as per article 40).

k. Test/ Trial and Acceptance (as per article 41).

33. **Additional Feature Offered by Bidder**: The bidders may suggest and offer additional features for the offered system. In this case, Bidders have to explain the detailed advantage of that/ those features of the system.

34. **Technical Specification**. The technical specification of the system is given below:

a. **Electro-Optic Tracker System with associated accessories**.

(1) **Optronic Turret**. The Optronic Turret of offered system is to be stabilized system for continuous 360° operation. The specifications are as follows:

Ser	Required Parameter	Remarks
General		
1.	Elevation : No limitation	To be mentioned
2.	Position accuracy: 20 arc sec or better	To be mentioned
3.	Slewing rate : >100^0/sec or better	To be mentioned

4.	Stabilization accuracy : 0.05 mRard (1 sigma) or better	To be mentioned
5.	Major Features	Details to be mentioned
IR Camera		
6.	Spectral waveband : 3-5 µm or better	To be mentioned
7.	Detector type : Cooled	To be mentioned
8.	Resolution : 640x480pixel or better	To be mentioned
9.	Lens type : Continuous Zoom	To be mentioned
10.	Wide Field of View : ≥ 35° or better	To be mentioned
11.	Narrow Field of View : ≤ 1.8° or better	To be mentioned
12.	Sensitivity : < 20 mK or better	To be mentioned
13.	Video output	To be mentioned
14.	**Detection** Cross Section — Range $1m^2$ — 8 Km or more $2.3m^2$ — 16 Km or more	To be mentioned
TV Camera		
15.	Type of detector	To be mentioned
16.	Lens type : Continuous zoom	To be mentioned
17.	Resolution: 1920 x 1080 - Full HD	To be mentioned
18.	Signal-to-Noise ratio: > 50 dB or better	To be mentioned
19.	Wide Field of View: ≥ 32° or better	To be mentioned
20.	Narrow Field of View: ≤ 1.6° or better	To be mentioned
21.	Zoom ratio: 20 x or better	To be mentioned
22.	Sensor gain: Automatic / Manual	To be mentioned
23.	Video output	To be mentioned
24.	Sensitivity: 0.05 lux or better	To be mentioned
Laser Range Finder		
25.	Laser type	To be mentioned
26.	Wavelength: 1.5 µm or better	To be mentioned
27.	Beam Divergence (mrad): 0.4 or better	To be mentioned
28.	Maximum Range: 20000 m or more	To be mentioned
29.	Minimum Range: 50 m or less	To be mentioned
30.	Range accuracy: ± 1 m or better	To be mentioned
31.	Range resolution: 5 m or better	To be mentioned
32.	Multiple target indication: 5 or more	To be mentioned
33.	Repetition Rate: 1, 4, 10, 100 Hz or better	To be mentioned

(2) **Control and Processing Unit**. The details to be mentioned for control and processing unit of the Electro-Optic Tracker System. The unit shall include the following features (but not limited to) to ensure optimal performance and integration with combat management systems:

(a) High-Performance Processing.

(b) Input/ Output Interfaces.

(c) Memory and Storage.

(d) Video Processing.

(e) Built-In Test Equipment (BITE).

(f) Environmental and Mechanical Specifications.

(g) Power Supply.

(h) Software Features.

(j) Networking and Connectivity.

(k) Security Feature.

(3) **Operating Console Unit.** The details to be mentioned for operating console unit of the Electro-Optic Tracker System. The unit shall include the following features (but not limited to) to ensure optimal performance and operation of the system:

(a) Display of target tracking information.

(b) Auto and Manual Designation modes.

(c) Positioner control in manual mode.

(d) Operator controls and setup for tracker parameters.

(e) Range gate position control.

(f) Laser Range Finder (LRF) control.

(g) High-speed synthetic graphics.

(h) Networked display system.

(j) On-line health monitoring.

(k) Built-in self-tests.

(3) **Standard Accessories.** Standard accessories shall include every item which are essential to make the offered system operational with full functionality, whether those are mentioned in the specification or not are to be supplied by the supplier within the scope of the supply. Any such accessories, tools, kit and items associated to operate the said equipment are to be mentioned clearly with purpose and submit with the offer mentioning item wise price.

b. **Certificate and Reports.**

(1) Following certificates and reports are to be provided in English for the offered item including associated equipment/ accessories **with the offer:**

(a) 'Type Approval Certificates' of classification society.

(b) Supply Assurance Certificate.

(c) Guarantee and Warranty Certificates.

(d) After Sales Service Support Certificate.

(2) Following certificates and reports are to be provided in English for the offered item including associated equipment/ accessories **during delivery:**

(a) 'Type Approval Certificates' of classification society.

(b) 'Quality Assurance Certificates' for each item and their associated equipment and instruments from OEM is to be provided.

(c) 'FAT Certificates'.

(d) Certificate of Genuine Product and Brand-New Item.

(e) Guarantee and Warranty Certificates.

(f) After Sales Service Support Certificate.

c. **Drawing and Manual/ Documentation.**

(1) **Installation Drawings.** Following drawings are to be submitted for buyer's approval prior 04 (Four) months of commencing of installation work:

(a) Layout drawing.

(b) Electrical inter-connection diagram of all equipment.

(c) Cable diagram including cable type and cable grouping.

(d) List of works (facility work support) those are needed from BN.

(2) **Manuals/ Document.** 02 (Two) set of following documents and manuals in English are to be provided **at free of cost** at the time of delivery:

(a) Operating Manual.

(b) Technical Manual with Circuit Diagram (At lasts upto component level).

(c) Maintenance Manual.

(d) Parts Catalogue with parts Identification List (PIL).

(e) Installation Manual having Layout drawing of equipment, alignment instruction, electrical interconnection diagram, cable diagram, diagram showing interface (mechanical and electrical) and data protocol.

35. **Message Protocol, Data Format with Interface Control Document (ICD), Interface Requirement Specification (IRS) and Software.** Message Protocol and track data output of the Electro-Optic Tracker System are to be provided by bidder from OEM. In this regard, OEM shall provide the entire necessary data format for followings:

a. Processing Cabinet to and from Sensor's (Gun, Missile etc).

b. Processing Cabinet to and from Operating Console.

c. Optronic Turret to and from Control Unit.

d. Control Unit to and from Processing Cabinet.

e. Other required input of equipment (i.g GPS, LOG, GYRO, Inertial Platform, RADAR, Metrological Instruments etc.)

f. Moreover, the supplier shall provide necessary ICD, IRS and interface protocol during delivery/ installation of the item. The ICD, IRS and interface protocol will be utilized by BN to integrate any sub-system in future (if needed). The ICD and IRS will be tested and demonstrated in the presence of buyer's representative during installation by qualified OEM Engineer. A job completion report/ certificate are also to be signed by both parties in this regard. The cost of ICD and IRS is to be quoted separately in the offer.

g. Supplier shall provide all related original software (lifetime license version) with backup software, maintenance /fault finding software and step by step procedure for installation to BN during delivery of the items. In case of software crash, BN personnel should be able to install the back-up software to restore the whole system using step-by-step procedure. A list of all required software is to be provided with the offer.

36. **Spares (Optional).** A list of OEM recommended Spares (if any) are to be quoted separately mentioning item-wise price including the followings. The buyer may select item/ items from the proposed list.

Ser	Item Description	Qty	Unit Price
1.	IR Camera	01	To be mentioned
2.	TV Camera	01	
3.	Laser Range Finder	01	

37. **Factory Acceptance Test (FAT).** Following FAT is to be carryout in OEM premises for the offered Electro-Optic Tracker System:

a. FAT will be carried out by a team of 03 (Three) BN members for duration of 05 (Five) working days in OEM premises at the buyer's expense. Both way air fare, accommodation and food for the FAT team will be borne by BN. All types of movement/ transportation (air/sea/road) of the team within the manufacturer's country, reception and arrangement for entry into the country/ concerned area for the FAT are to be arranged by the supplier. The item-wise cost in this respect is to be quoted in the offer. The supplier should inform the buyer about the date of FAT (schedule) and FAT criteria at least 08 (Eight) weeks prior to the date of FAT. Moreover, FAT procedure shall be forwarded to the buyer 8 (Eight) weeks prior to the date of commencement of the FAT to the concerned directorate for approval of BN.

b. On return from the country of manufacturer, the FAT team will submit the report to concerned Directorate at Naval Headquarters. Naval Headquarters will, in turn, forward final decision along with FAT report, basing on which DGDP will render clearance for shipment of stores to the supplier concerned. The supplier will not make shipment of any item of the contract without clearance from DGDP.

c. The prime objective of FAT will be to check the capability of the system as the technical specification mentioned in the offer. Therefore, the capabilities of the quoted system which will be tested during FAT are to be separately mentioned in the offer. The FAT will be carried out at manufacture's factory premises. In this regard, the FAT protocol is to be submitted for approval by BN well in advance.

d. During FAT, various tests for checking performance are to be carried out and recorded. After FAT, a joint test report will be prepared and signed by both the seller and buyer's representative.

38. **Foreign Training.** The training program will be primarily focused on equipping BN team with the expertise needed to effectively interface and integrate the Electro-Optic Tracker System with combat management systems. This training will cover in-depth knowledge of communication protocols and data exchange processes, ensuring that the Electro-Optic Tracker

can seamlessly receive initial target information, track real-time targets and provide accurate tracking data to the combat management system. Emphasis will be placed on configuring and calibrating the system for optimal performance, ensuring compatibility with existing fire control systems and troubleshooting any integration issues that may arise. Advanced training will also be provided on system configuration, calibration, and troubleshooting to maintain optimal performance and accuracy in various operational environments. The training will include practical, hands-on exercises to solidify understanding and ensure that BN team can reliably use in real operational environments.

a. **Training Objective**.

(1) Nominated BN personnel should have comprehensive knowledge on Tracking Trainer System overview and its features and limitations. They should also acquire detailed knowledge and orientation with sub systems.

(2) Nominated BN personnel should know which level of maintenance they can do, what kind of tools and skill needs to be used to carry out maintenance works as per OEM recommended maintenance system/ schedule.

(3) Nominated BN personnel should be completely aware of all hardware/ software including all kinds of documentations related to the system.

(4) A standard operating procedure shall be provided to the trainees for developing a ready response team onboard to address defect identification and rectification.

(5) Nominated BN personnel shall be able set to work, configure and interface the whole system including re-installation of all software used in the system.

(6) The supplier will provide operators and maintainers training to the nominated BN personnel. Cost of both way air fare (Dhaka to manufacturer's premises and back) will be borne by the purchaser. The cost of food, accommodation, training material and internal travel cost will be borne by the Supplier. The cost of foreign training per person/ day is to be quoted separately. Buyer will chose the training as per requirement. Training shall be provided in English Language as per the duration below:

Ser	Training	Remarks
1.	**Interface and Integration training** for 03 (Three) BN personnel for a duration of 10 working days	The details of training syllabus are to be provided with the offer.
2.	**Operator's and Maintainer's training** for 03 (Three) BN personnel for a duration of 05 working days	The training should include operation and 1st & 2nd level maintenance of the system in details. The details of training syllabus are to be provided with the offer.

b. **Training Contents**. The objective of the training should include following but not limited to:

(1) **Interface and Integration Training**. Details to be mentioned including the following (but not limited to):

(a) System Overview, Components and working principal.

(b) Communication Protocols and Data Exchange.

(c) System Configuration and Calibration.

(2) **Operator Training**. Details to be mentioned including the following (but not limited to):

(a) Real-Time Target Tracking and Acquisition.

(b) Fire Control System Operations.

(c) Operational Simulations.

(3) **Maintainer Training**. Details to be mentioned including the following (but not limited to):

(a) System Maintenance and Troubleshooting.

(b) Troubleshooting and Fault Rectification.

(c) Advanced Features and Customization.

39. **Local Training**. A group of operators/ technicians are to be trained locally in Bangladesh for 15 (Fifteen) working days by the Manufacturer's Engineer on completion of installation and Test/Trial. Cost of air fare (to and from Bangladesh (installation site)), accommodation, food and internal transportation (to and from work site and hotel) of the Manufacturer's engineer will be borne by Supplier. The cost of local training is to be quoted with the offer separately.

a. **Training Objective**. Objective of training is to learn about the functionality and maintenance of newly installed Tracking Trainer System.

b. **Training Contents**. The contents of the training should include following (but not limited to):

(1) System composition, configuration, principle of operation and troubleshooting.

(2) Data format and protocol of sensor, processors and control console.

(3) Software installation, operation and configuration for smooth conducting of all the tests.

(4) Theoretical concept and procedure of tests (practical).

(5) Repair and maintenance.

40. **Installation, Supervision and Setting to Work (STW)**.

a. **Installation Materials and Accessories.** All necessary Installation materials, like junction boxes, cable, connectors, terminal, brackets, nuts, bolts, securing tie clips, channels (not limited to) including other accessories are to be provided by the supplier.

b. **Bidder/ Supplier Responsibility**.

(1) The offered Electro-Optic Tracker System is to be set up by OEM engineer at CNRD premises and to be commissioned by the OEM engineer in presence of BN personnel. Installation includes STW and HAT of associated equipment.

(2) The supplier at no additional cost will do any modification/ alteration required for such set up.

(3) Bidder has to submit online assurance certificate from OEM (Whenever requested by BN not exceeding 05 years from the date of acceptance) without any additional cost with offer for future interfacing and integration issue of onboard any equipment and system with supplied Electro-Optic Tracker System.

(4) Qualified manufacture engineers is to be employed for the installation and STW. All expenses for food, accommodation, airfare and internal travel etc for OEM engineer are to be borne by the supplier.

c. **Purchaser Responsibility**. Purchaser (BN) shall provide available assistance (if required) for installation under the direct supervision of OEM Engineer. BN Dockyard shall provide available work/ facility (if required) for installation. Support equipment may be provided (if available) from the user side upon request prior installation.

41. **Test, Trial and Acceptance.**

a. **General**. The OEM engineer will ensure satisfactory tests trial and functioning/ commissioning of the equipment at purchasers premises after all necessary integration/ interfacing with other system.

b. **HAT Protocol.** The HAT protocol/ procedures is to be approved by BN at least 03 (Three) weeks prior to commencement of individual schedule.

c. **HAT.** Harbor Acceptance Test (HAT) will be carried out at harbor on completion of setting to work (STW).

d. **Acceptance.** On completion of satisfactory Test/ Trial (HAT), an acceptance certificate will be signed by BN and Supplier.

PART III: TERMS AND CONDITIONS

42. **Delivery**.

a. **Delivery and Installation Time**. Item delivery and installation as per scope of supply shall be completed within 12 (Twleve) months from the date of signing of contract and breakdown of said time line is appended below:

(1) **Delivery Time**. The items shall be delivered to the "Place of Delivery" within **09 (Nine)** months after signing the contract.

(2) **Installation Time**. The Tracking Trainer System shall be installed within **03 (Three)** months after delivery of the items.

b. **Place of Delivery**: NSD Chattogram.

c. Incase of CFR/CPT, the supplier shall carry the items from sea port/ air port (as applicable) to NSD Chattogram at the cost and risk of supplier.

43. **Shipment**.

a. **Source of Raw Material**. To be mentioned.

b. **Source of Supply**. The source of supply of the offered systems are to be mentioned. It should be from the country of manufacturer or country of origin.

c. **Port of Shipment**: To be mentioned. The port of shipment is to be from the country of manufacturer or country of origin.

d. **Consignee**. The supplied item shall be the following consignee:

The Commanding Officer Naval Stores Depot New Mooring, Chattogram, Bangladesh BIN-002349278-0503	or	Officer In Charge Naval Stores Sub Depot Dhaka Naval Unit Khilkhet Namapara, Dhaka-1229, Bangladesh

e. All items are to be brand new and to be delivered in seaworthy packing to ensure safe transit by sea. Certificates in this regard are to be provided during delivery.

f. All packages are to have packing notes showing their contents in detail and all packages shall be marked with the name and address of the consignee and gross weight.

44. **Project Timeline**. A forecasted project timeline indication month-wise event is to be provided with the offer and another reviewed project time line with project implementation plan is to be submitted after 15 days of signing the contract. The project timeline and implementation plan shall have clear indication of duration with details of support/ facility work required from BN.

45. **Warranty, Guarantee and After Sales Service**.

a. **Warranty**.

(1) 12 (Twelve) months manufacturer's warranty for trouble free operation is to be provided for the item from the date of acceptance by the purchaser. If any component and submit of the supplied items becomes defective during the warranty period, the overall warranty shall be extended automatically for the period of subject component remains defective.

(2) For warranty repair/ replacement, the supplier shall collect the defective item from NSD, Chittagong/ NSD Khulna/ NSSD, Dhaka (as applicable) and re-supply the same to collecting place after warranty repair or for replacement within 90 (ninety) days from the date of defect at no cost to the purchaser.

b. **Bank Guarantee (BG) for Warranty**. The BIDDER shall issue a Bank Guarantee (BG) during submission of last 20% payment for a value of **@ 05% (Five percent) of the total CFR/CPT value** from any scheduled bank in Bangladesh in favour of The Senior Finance Controller (Navy), Sailors Colony, Lalasarai, Mirpur–14, Dhaka-1206, representing Bangladesh Navy, Peoples Republic of Bangladesh, information to The Directorate General Defence Purchase, Ministry of Defence, Peoples Republic of Bangladesh. This BG shall remain valid until the warranty period of the **Electro-Optic Tracker system** and other items (notwithstanding minor deficiencies which would be mutually settled and agreed between PURCHASER and BIDDER) in Bangladesh, and it shall expire on receipt of **Warranty Completion Certificate**. If the contractual obligation

warrants the extension of the validity of the BG, the BIDDER shall remain liable to do so at its own cost. In case of material failure of the BIDDER to fulfill its contractual obligation as per the terms and conditions of the contract, the BG in full or part thereof may be forfeited at the discretion of the PURCHASER.

c. **Guarantee**. The supplier is to give guarantee of continued supply of spares for at least 10 (Ten) years at a reasonable price (not exceeding 3% per year). Certificate is to be submitted with the offer.

d. **After Sales Service**. After sale service should be available with the local agent of supplier and is to be provided as and when required for indefinite period or at least 15 years after the installation. If any system, equipment etc becomes obsolete or out of production during or after the installation period (at least upto 15 years), the supplier is to submit alternative of same/ improved version for selecting the suitable replacement.

46. **Terms of Payment**. Payment shall be made through an Irrevocable Letter of Credit (LC). LC shall be opened at the expense of the PURCHASER and **100% LC** value shall be made operative in favour of Supplier. CFR/ CPT value being the value of the supplied goods, payment shall be made as under:

a. **1st Installment**. 80% of CFR/ CPT value shall be paid **after shipment of hardware and software** and on submission of the following documents to the bank:

(1) Original Airway Bill (AWL)/ Bill of Landing (BL) must be issued by air lines/ shipping lines or authorized agent of shipping lines/ air lines against DGDP contract reference (after signing the contract). LC number, and Bangladesh bank registration number are to be mentioned in AWL/ BL. Freight amount must be shown separately otherwise only FCA value shall be paid. All documents to be submitted (01) original with at least (05) five copies other than bill of lading shall be (03) three original with (03) three copies. In addition to this, following shall also be considered:

(a) Name of the carrier must be indicated in AWL/ BL.

(b) Must be signed by carrier or a named agent for/ on behalf of the carrier.

(2) 'Supplier's Signed Commercial Invoice' for (freight/ services amount to be shown separately (if applicable)) representing 80% of CFR/CPT value as stated in the contract.

(3) "Packing List" signed by the authorized representative of the shipping company or exporter.

(4) "Certificate of Origin" signed by the Manufacturer's Authorized Person/Authorized Official of the exported country.

(5) 'Manufacturer's Certificate" Signed by the MANUFACTURER/ SUPPLIER. Certifying that product has been produced as per technical data/ analytical data and specification as per contract.

(6) "Manufacturer's Warranty Certificate" Signed by the MANUFACTURER/ SUPPLIER.

(7) "Factory Acceptance Test (FAT)/ Pre-Shipment Inspection (PSI) Completion Certificate" signed by the SUPPLIER.

(8) 'Quality Assurance Certificate' (QAC) signed by the SUPPLIER.

(9) 'Shipment Clearance Letter' Signed by DGDP (Directorate General Defense Purchase, Dhaka, Bangladesh) as PURCHASER.

b. **2nd Installment**. 20% of CFR/CPT value shall be paid **after successfully commissioning the system** and on submission of the following documents to the bank:

(1) 'Supplier's Signed Commercial Invoice' for representing 20% of CFR/CPT value as stated in the contract.

(2) 'Final Acceptance Certificate' issued by the PURCHASER after successful completion of installation, integration with related ship borne equipment, HAT, SAT and commissioning of system.

(3) The bidder shall submit the relevant document of 5% BG of CFR value, which shall be released on submission of warranty completion certificate.

c. **Installment of Training and Services**.

(1) **Foreign Training**. 100% cost of Foreign Training shall be paid **after successful completion of foreign training** and on submission of the following documents to the bank:

(a) 'Foreign Training Completion Certificate' signed by the PURCHASER for the successful completion of the Foreign Training in OEM premises.

(b) 'Supplier's Signed Commercial Invoice' for representing 100% of Foreign Training value as stated in the contract.

(2) **Local Training**. 100% cost of Local Training shall be paid **after successful completion of local training** and on submission of the following documents to the bank:

(a) 'Local Training Completion Certificate' Signed by the PURCHASER for the successful completion of the Local Training in Bangladesh.

(b) 'Supplier's Signed Commercial Invoice' for 100% of Local Training value as stated in the contract.

(3) **Installation and Acceptance**. 100% cost of Installation shall be paid **after successful completion** of Installation and final acceptance on submission of the following documents to the bank:

(a) Certificate Signed by the PURCHASER for the successful 'Completion of the Installation and Final Acceptance' in Bangladesh.

(b 'Supplier's Signed Commercial Invoice' for 100% of Installation and Final Acceptance value as stated in the contract.

47. **Import Duties**. These are the Defence stores and shall be used by the Defence Forces only and hence are exempted from payment of Custom Duties and Sale Taxes as per ministry of finance (NBR) memo no 9(41) NBR/CUS-IV/27/246 dated 10 April 1981. Therefore, if the item is imported against this tender, price to be quoted without import duties.

48. **Terms and Conditions (DGDP).** Following terms and conditions shall governed by the tender schedule/ existing rules of Directorate General Defence Purchase (DGDP):

a. Agency Commission.
b. LC Amendment Charges.
c. Insurance Charges.
d. Liquidated Damages (LD).
e. Arbitration.
f. Force Majure and War Risk.
g. Termination of Contract.
h. Letter of Credit.
j. End User Certificate (EUC).
k. Recoveries.
l. Performance Guarantee (PG).
m. Other Conditions.

49. **Price and Financial Offer.** Price of offered item (for each point of scope of supply) of the total offer is to be shown separately and then grand total of the foreign currency to be shown on the original offer submitted by the bidder. The BIDDER shall comply as asked in the tender specification. The BIDDER may mention the price of additional items and services in the financial offer. Item-wise price for additional item are to be mentioned for each item and services. The BIDDER may also explain the financial terms and conditions in the financial offer as appropriate. To evaluate the financial competitiveness, BIDDER has to submit the summary of financial offer as per following format:

Ser	Description	Qty	Unit Price	Currency (USD, EURO, GBP etc)	Total Value
1.	Complete sets of Electro-Optic Tracker System including followings: a. Standard Accessories b. Certification and Reports c. Drawing and Manual/ Documentation	01	To be mentioned separately	To be mentioned	To be mentioned separately
2.	Message Protocol, Data Format with Interface Control Document (ICD), Interface Requirement Specification (IRS) and Software	-	To be mentioned	To be mentioned	To be mentioned
3.	Spares (Optional)	-	To be mentioned	To be mentioned	To be mentioned
4.	Total Freight on Board (FOB)	-	-	-	To be mentioned
5.	(+) Freight Charge	-	To be mentioned	To be mentioned	To be mentioned
6.	CFR Value in Foreign currency	-	To be mentioned	To be mentioned	To be mentioned

7.	CFR Value Equivalent to Bangladeshi Taka (BDT)	-	-	-	Buyer shall fill-up
8.	Factory Acceptance Test (FAT)		To be mentioned	To be mentioned	To be mentioned
9.	Foreign Training	-	To be mentioned	To be mentioned	To be mentioned
10.	Local Training	-	To be mentioned	To be mentioned	To be mentioned
11.	Installation, Test/ Trial and Acceptance	-	To be mentioned	To be mentioned	To be mentioned
12.	Total Quoted Price	-	To be mentioned	To be mentioned	To be mentioned