

TENDER SPECIFICATION OF GYRO COMPASS (3D)**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 **Gyro Compass (3D)**.
6. **Installation Site.** The Compasses shall be installed onboard BNS PROTTOY at Chattogram Naval Area and BNS DHALESHWARI at Khulna Naval Area, Bangladesh.
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 Gyro 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 Gyro Compass 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.
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 Gyro, 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 Gyro is to be mentioned with full address. The list shall provide the name of various navies/coastguards with respective model and brand of offered Gyro. The Gyro compass should be widely used by various navies/ coastguards. The user list shall 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 Gyro compass, If detailed information regarding specifications, manufacturer's manuals and catalogue for the quoted model of the Gyro compass, 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.** Gyro Compass (3D).

16. **Purpose.** The Integrated Gyro Compass (3D) shall be used onboard naval ships to provide necessary heading, roll, pitch, yaw and position information. The gyro shall be interfaced with existing onboard Data Distribution Unit.

17. **Quantity.** 02 (Two) Complete sets.

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

19. **Standardized Gyro Compass of BN.** BN Standardized list of Gyro Compass is as follows:

Ser	Brand	Manufacturer
1.	Sperry Marine	Sperry Marine, USA/UK
2.	Safran	Safran, France
3.	GEM Elettronica	GEM Elettronica s.r.l, Italy
4.	Anschutz	Anschutz, Germany
5.	Exail Group	Exail Group, France

20. **Brand.** To be mentioned (within standardized Gyro Compass as per para-19)

21. **Model.** To be mentioned (within standardized Gyro Compass as per para-19)

22. **Country of Origin.** USA, UK, France, Italy & Germany (To be mentioned).

23. **Manufacturing Country.** USA, UK, France, Italy & Germany (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 offered item is to fulfill the requirement of IEEE/ IEC/ IMO and other competent internationally recognized standards. The applicable classification standard(s) of offered items are to be mentioned and should be well supported by the certificates/ OEM brochures.



29. **Environmental Condition and Other Standard.** The requirement features are as follows:

- a. Temperature : 0°C to 55°C.
- b. Relative Humidity : Up to 95% (non condensing).
- c. Ingress protection (IP) : 65 or better
- d. For Shock : MIL-STD-810F or equivalent (To be mentioned).
- e. For Vibration : MIL-STD-810F or equivalent (To be mentioned).
- f. Sea Keeping : To comply with the ship's movement as follows:
 - (1) Roll : $\pm 30^{\circ}$.
 - (2) Pitch : $\pm 10^{\circ}$.
 - (3) Yaw rate : $\pm 8^{\circ}$.
- g. Storage temperature : To be mentioned
- h. EMI/EMC : MIL-STD-461/IEC60945 or equivalent (To be mentioned).

30. **General Features.** The offered Gyro Compass is to have the following features (but not limited to):

- a. Highly accurate real-time output for LAT, Long true heading, heave, surge, sway, accelerations and rate of turn, even within GPS/GNSS denied environments.
- b. Ease-of-use and integration.
- c. Robust heading performance for high-speed vessels with high rate-of-turn.
- d. Fiber-Optic Gyroscope.

31. **Power Supply Available at Ship.** The power supply available at ship is 380V $\pm 5\%$, 50Hz, 3 Phase and 220V $\pm 5\%$, 50Hz, single Phase. Any other power supply unit (if necessary) is to be provided by the Supplier.

32. **Scope of Supply.** The scope of supply for Gyro Compass is mentioned below (but not limited to):

- a. Gyro Compass (3D) with associated accessories are as follows:
 - (1) 02 x Main/ Master Unit (Inertial Navigational Unit/ Intertial Measurement Unit) (01 for PROTTOY and 01 for DHALESHWARI) (as per para 33a(1)).
 - (2) 02 x Control and Display Unit (01 for PROTTOY and 01 for DHALESHWARI) (as per para 33a(2)).
 - (3) 06 x Digital Repeater (03 for PROTTOY and 03 for DHALESHWARI) (as per para 33a(3)).
 - (4) 04 x Analog Repeater (01 for PROTTOY and 03 for DHALESHWARI) (as per para 33a(4)).
 - (5) 05 x Digital and Analog Repeater (05 for PROTTOY) (as per para 33a(5)).
 - (6) 02 x Inter switch/ NMEA Buffer unit (**Optional**) (as per para 33a(6)).
 - (7) 02 x Power Supply Unit (**Optional**) (as per para 33a(7)).
 - (8) Cables and Accessories Kit for System Installation (as per para 33a.8).
 - (9) Tools and Accessories including case (as per Para 33a.9).
- b. Standard Accessories (as per para 33b).
- c. Certification and Reports (as per para 33c).

- d. Drawing and Manual/ Documentation (as per para 33d).
- g. Interface Control Documents (ICD) (as per para 34).
- h. Spares (Optional) (as per para 35).
- j. Factory Acceptance Test (FAT) (as per para 36).
- k. Local Training (as per para 37).
- l. Installation, Supervision and Setting to Work (STW) (as per para 38).
- m. Test, Trial and Acceptance (as per para 39).

33. **Technical Specification.**

- a. Specification of Gyro Compass (3D) with associated accessories are as follows:

(1) **Main/ Master Unit (Inertial Navigational Unit/ Intertial Measurement Unit).**
The specification of Main/ Master Unit are as follows (but not limited to):

Ser	Description	Parameter	Remarks
1.	Heading accuracy	<3 arc Min (Secant Lat) or better	To be mentioned
2.	Roll / Pitch accuracy	3 Min (0.05°) or better RMS	To be mentioned
3.	Position accuracy (TRMS)	3 Min (0.05°) or better RMS	To be mentioned
4.	Heave	-	To be mentioned
5.	Settling time	≤ 15 min (static) and ≤ 30 min (full accuracy, all conditions)	To be mentioned
6.	MTBF	≥ 100,000 hours or more	To be mentioned
7.	Power supply and consumption	-	To be mentioned
8.	Ingress Protection (IP)	IP 42 or better	To be mentioned
9.	Interface Details:		
	a. Input	Digital and/or analogue	Details To be mentioned
	b. Output	Digital and/or analogue	Details To be mentioned
	c. Synchro Output	-	Details To be mentioned
	d. Output Protocol	Preferable NMEA 0183, IEC 61162-1	To be mentioned
	e. Baud Rate (I/O)	-	To be mentioned
	f. Refresh Rate	-	To be mentioned
10.	Other Major Features	-	Details To be mentioned

(2) **Control and Display Unit.** The specification of Control and Display Unit are as follows (but not limited to):

Ser	Description	Remarks
1.	Country of Origin	As per paragraph 22 (To be mentioned)
2.	Manufacturing Country	As per paragraph 23 (To be mentioned)
3.	Brand	To be mentioned
4.	Model	To be mentioned
5.	Display Size	To be mentioned
6.	Display Type	TFT/LCD/LED (To be mentioned)
7.	Display Colour	To be mentioned
8.	Resolution	VGA or better (To be mentioned)
9.	Ingress Protection (IP)	IP 42 or better
10.	Dimension	To be mentioned
11.	Weight	To be mentioned



(3) **Digital Repeater.** Detail requirement of Digital Repeater are as follows:

Ser	Description	Remarks
1.	Brand	To be mentioned
2.	Model	To be mentioned
3.	Year of Manufacturing	2024 or later
4.	Ingress Protection (IP)	IP56 or better (To be mentioned)
5.	Dimension	To be mentioned
6.	Weight	To be mentioned
7.	Interfacing port	RS 422, NMEA 0183 (Details to be mentioned)
8.	Other Major Features	Details to be mentioned

(4) **Analog Repeater.** Detail requirement of Analog Heading repeater are as follows:

Ser	Description	Remarks
1.	Brand	To be mentioned
2.	Model	To be mentioned
3.	Year of Manufacturing	2024 or later
4.	Ingress Protection (IP)	IP56 or better (To be mentioned)
5.	Dimension	To be mentioned
6.	Weight	To be mentioned
7.	Interfacing port	RS 422, NMEA 0183 (Details to be mentioned)
8.	Other Major Features	Details to be mentioned

(5) **Digital and Analog Repeater.** Detail requirement of Digital and Analog Repeater are as follows:

Ser	Description	Remarks
1.	Brand	To be mentioned
2.	Model	To be mentioned
3.	Year of Manufacturing	2024 or later
4.	Ingress Protection (IP)	IP56 or better (To be mentioned)
5.	Dimension	To be mentioned
6.	Weight	To be mentioned
7.	Interfacing port	RS 422, NMEA 0183 (Details to be mentioned)
8.	Other Major Features	Details to be mentioned

(6) **Inter switch/ NMEA Buffer unit.** The technical specification of offered Inter switch/ NMEA Buffer unit is as follows (not limited to):

Ser	Description	Remarks
1.	Brand	As per para 20 (To be mentioned)
2.	Model	To be mentioned
3.	Country of Manufacturer	As per para 23 (To be mentioned)
4.	Year of Manufacturing	2024 or later
5.	Ingress Protection (IP)	IP 42 or better
6.	Dimension	To be mentioned
7.	Weight	To be mentioned
8.	Number of output	Minimum three per axis (To be mentioned)

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(7) **Power Supply Unit.** The specification of Power Supply Unit is as follows (but not limited to):

Ser	Description	Remarks
1.	Country of Origin	As per para 22 (To be mentioned)
2.	Manufacturing Country	As per para 23 (To be mentioned)
3.	Brand	To be mentioned
4.	Model	To be mentioned
5.	Power Supply:	
	(a) Input : 220V AC, Single Phase as Main/ Primary supply and 24V DC as backup power supply	
	(b) Output	To be mentioned
6.	Power consumption	To be mentioned
7.	Protection	Against over-voltage, low voltage and inversion of polarity (To be mentioned)

(8) **Cables and Accessories Kit for System Installation.** Technical specification of Cables and Accessories Kit for System Installation is as follows:

Ser	Description	Remarks
1.	Brand	To be mentioned
2.	Model	To be mentioned
3.	Country of Origin	To be mentioned
4.	Country of Manufacturer	To be mentioned
5.	The requirement of cables is to be assessed by the supplier through ship visit and to be submitted with the offer. Supplier will meet additional requirement of cables during installation and price to be quoted separately with the offer (if required). Details of various cable specifications are to be provided.	

(9) **Tools and Accessories including Case.** The supplier is to provide necessary tools and accessories including case with the gyro. In this regard, a list of tools and accessories are to be quoted with the offer mentioning item-wise price.

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

c. **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 (as per para 28).
- (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 (as per para 28).
- (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.

d. **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) sets 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.

34. **Interface Control Document (ICD).** The Supplier shall provide necessary ICD and interface protocol during delivery/ installation of the items. The ICD and interface protocol shall be utilized by BN to integrate any existing and future sub-systems. The supplied ICD shall be tested and demonstrated in the presence of OEM/ supplier's representative during installation. The cost of ICD is to be quoted separately in the offer.

35. **Spares (Optional).** Following spares are to be quoted separately mentioning item wise price. Buyer may select the items as required from the list for procurement:

Ser	Name of item	Unit price
1.	Digital Tape Heading Repeater	Price to be quoted
2.	Digital Heading Repeater	
3.	Indoor Bearing Repeater.	
4.	Outdoor Bearing Repeater	
5.	NMEA Buffer Unit	

36. **Factory Acceptance Test (FAT).** Following FAT is to be carried out in OEM premises for the offered equipment:

a. FAT shall 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 shall 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. FAT procedure shall be forwarded to the buyer 08(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, 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 objective of FAT shall be to check the capability of the system as per the technical specification mentioned in the offer. The FAT shall 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 shall be prepared and signed by both the seller and buyer's representative.

e. **Country and Location of FAT.** Details are to be mentioned.

37. **Local Training.** A group of operators/ technicians are to be trained locally in Bangladesh for 05 (Five) working days by the Manufacturer's Engineer during and on completion of installation and Test/Trial of each Gyro Compass. 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 shall 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 Gyro compass.

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.

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

a. **Installation Materials and Accessories.** All Installation materials, like junction's boxes, brackets, nuts, bolts, securing tie clips, slips, channels (not limited to) are to be provided by the supplier. Bidder may visit the installation site prior submitting the offer.

b. **Bidder/ Supplier Responsibility.**

(1) **Integration/ Interfaces.** The existing Data Distribution Unit (DDU) of SIGMA 40 (INS) onboard both ships will be reused to maintain existing integration/interface with repeaters, subsystems (e.g. CMS), and various equipment. The supplier shall conduct a site survey on both ships to understand integration requirements and ensure compatibility of the new gyro system with the existing setup. Any necessary modifications, arrangements, or additional interface units required for seamless integration must be implemented by the supplier and details to be mentioned in the offer. Costs for integration, including any additional interface units, should be quoted separately under the "Installation" heading, ensuring the integrity of the existing system remains intact.

(2) The OEM must ensure the proper functioning of the new gyro system up to the existing Data Distribution Unit (DDU). It must be verified that the gyro data is correctly transmitted to the DDU, ensuring the proper functioning of all existing interfaced/integrated repeaters, subsystems, and equipment. The OEM will be responsible for addressing any issues to ensure seamless integration and functionality as per the specified requirements.

(3) All the offered Gyros shall be installed onboard BNS DHALESHWARI and PROTTOY by BN Dockyard (Gyro Shop) under supervision of OEM/ Supplier engineer. The OEM/ Supplier engineer shall supervise the installation and provide necessary support regarding interfacing/ integration.

(4) Bidder has to submit online support 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 Gyro compass.

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

(6) 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.

(7) Supplier shall provide List of works (facility work/ support those are needed during docking, at harbour and at sea from BN) during submission of offer for approval of BN.

c. **Purchaser Responsibility.**

(1) All the offered Gyros shall be installed onboard BNS DHALESHWARI and PROTTOY by BN Dockyard (Gyro Shop) under supervision of OEM/ Supplier engineer.

(2) The offered gyro shall be interfaced with the ship borne navigational equipment by BN Dockyard (Gyro shop) under supervision of OEM/ supplier's representative.

(3) 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.

39. **Test, Trial and Acceptance.**

a. **General.** 02 (Two) sets of gyro compass shall be installed onboard ships. BN Dockyard (Gyro Shop) will ensure satisfactory tests, trial and functioning/ commissioning of the equipment under supervision of OEM/ Supplier engineer after all necessary integration/ interfacing with other systems.

b. **HAT and SAT Protocol.** The HAT and SAT protocol/ procedures is to be approved by BN at least 06 (Six) weeks prior to commencement of individual schedule.

c. **HAT.** Harbour Acceptance Test (HAT) shall be carried out at harbour on completion of setting to work (STW).

d. **SAT.** Sea Acceptance Test (SAT) shall be carried out at sea on completion of satisfactory HAT.

e. **Acceptance.** The acceptance of the system will be dependent upon successful verification of proper functioning of the new gyro system up to the existing Data Distribution Unit (DDU). The system must demonstrate seamless transmission of gyro data to the DDU and confirm the proper operation of all interfaced/integrated repeaters, subsystems, and equipment without any disruptions. Any issues identified during testing must be resolved by the OEM to ensure compliance with the specified requirements before final acceptance. On completion of satisfactory Test/ Trial (HAT and SAT), an acceptance certificate shall be signed by purchaser and supplier.

PART III: TERMS AND CONDITIONS

40. **Delivery.**

a. **Delivery and Installation Time.** Item delivery and installation as per scope of supply shall be completed within 15 (Fifteen) 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 Gyro Compass shall be installed within 06 (Six) months after delivery of the items.



- b. **Place of Delivery.** NSD Chattogram and NSD Khulna.
- c. In case of CFR/CPT, the supplier shall carry the items from sea port/ air port (as applicable) to NSD Chattogram and NSD Khulna at the cost and risk of supplier.

41. **Shipment.**

- a. **Source of Raw Material.** To be mentioned.
- b. **Source of Supply.** The source of supply of the offered Gyro Compass 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.

42. **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 docking requirement (if required) and duration of docking with details of support/ facility work required from BN

43. **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 **Gyro Compass (Navigation)** 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.

44. **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 Gyro** 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 Gyro.

(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 Factory Acceptance Test (FAT), Local Training and Services.**

(1) **Factory Acceptance Test (FAT).** 100% cost of FAT shall be paid **after successful completion of FAT** and on submission of the following documents to the bank:

(a) 'FAT report' signed by the PURCHASER for the successful completion of the 'FAT' in OEM premises.

(b) 'Supplier's Signed Commercial Invoice' for 100% of FAT 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.

45. **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.

46. **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.

47. **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:

RESTRICTED

Ser	Description	Qty	Unit Price	Currency (USD, EURO, GBP etc)	Total Value
1.	Gyro Compass Main Unit (Inertial Navigational Unit/ Inertial Measurement Unit) with associated items/ accessories as follows:	02	To be mentioned separately	To be mentioned	To be mentioned separately
	Control and Display Unit	02			
	Digital Repeater	06			
	Analog Repeater	04			
	Digital and Analog Repeater	05			
	Standard Accessories	-			
	Cables and Accessories Kit for System Installation	-			
	Tools and Accessories including case	-			
	Certification and Reports	-			
	Drawing and Manual/ Documentation	-			
2.	Interface Control Documents (ICD)	-	To be mentioned	To be mentioned	To be mentioned
3.	Inter switch/ NMEA Buffer unit (Optional)	02	To be mentioned	To be mentioned	To be mentioned
4.	Power Supply Unit (Optional)	02	To be mentioned	To be mentioned	To be mentioned
5.	Spares (Optional)	-	To be mentioned	To be mentioned	To be mentioned
6.	Total Freight on Board (FOB)	-		To be mentioned	To be mentioned
7.	(+) Freight Charge	-		To be mentioned	To be mentioned
8.	CFR Value in Foreign currency	-		To be mentioned	To be mentioned
9.	CFR Value Equivalent to Bangladeshi Taka (BDT)	-	-	-	Buyer shall fill-up
10.	Factory Acceptance Test (FAT)	-	-	To be mentioned	To be mentioned
11.	Local Training	-	-	To be mentioned	To be mentioned
12.	Installation, Test/ Trial and Acceptance	-	-	To be mentioned	To be mentioned
13.	Total Quoted Price	-	-	To be mentioned	To be mentioned