# TECHNICAL SPECIFICATION OF W-AIS (WARSHIP-AUTOMATIC IDENTIFICATION SYSTEM)

- 1. Name of the Equipment. W-AIS (Warship Automatic Identification System).
- 2. <u>Purpose</u>. The purpose of the Warship-AIS (W-AIS) system to enhance maritime domain awareness through real-time vessel identification and tracking, enable secure encrypted communication between naval platforms, and ensure interoperability with existing tactical data links (TDLs), VSAT systems, navigation radar, and ECDIS.
- 3. Quantity. 15 (Fifteen) Complete Ship-borne W-AIS sets.
- 4. <u>Type</u>. Marine Type.
- 5. Brand. To be mentioned.
- 6. Model. To be mentioned.
- 7. Installation Site. Onboard Bangladesh Navy Ships.
- 8. Year of Manufacture. 2025 or later (To be mentioned).
- 9. <u>Country of Origin</u>. Australia, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Switzerland, Sweden, Turkiye, United Kingdom, USA and China.
- 10. <u>Country of Manufacture</u>. Australia, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Switzerland, Sweden, Turkiye, United Kingdom, USA and China.
- 11. <u>Manufacturer</u>. Name and full address with telephone number and e-mail of Manufacturer are to be mentioned.
- 12. <u>Bidder/ Supplier</u>. Name and full address with telephone number and e-mail of bidder/ supplier and local agent are to be mentioned.
- 13. <u>Local Agent</u>. Name and full address with telephone number and e-mail of supplier and local agent are to be mentioned.
- 14. <u>Site Visit Prior Tender Submission</u>. Prospective bidder may visit the installation site to estimate installation materials and works (including requirement of any supporting structure to install the offered WAIS 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.
- 15. **Qualification for Bidder**. Manufacturers of WAIS 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):
  - Authorization Certificate from OEM.
  - Supply Assurance Certificate from OEM.
- 16. <u>Manufacturer Requirement</u>. 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. In case of obsolesce of spare parts, the OEM is to propose appropriate/ alternate solutions to ensure handle free operation of the equipment for the said period.
- 17. <u>User List</u>. List of users of the offered WAIS is to be mentioned with full address. The list shall provide the name of various navies/ coastguards/ merchant marines with respective model and brand of offered WAIS. The user list shall be evaluated for the assessment of the offer.
- 18. <u>Condition for Acceptance of Quotation</u>. The quotation should have supporting documents coloured (booklets, leaflets, catalogues, brochures etc) with details about offered WAIS, If detailed information regarding specifications, manufacturer's manuals and catalogue for the quoted model of the WAIS, spare parts, accessories, scope of supply, etc are not provided the quotation may not be accepted.

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19. <u>Acceptance/ Rejection of Bid</u>. 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 PURCHASER).

# 20. Classification Standard.

- a. International Technical Standards.
  - (1) AIS-Specific.
    - (a) IEC 61993-2 Ed. 2.0 (2012) Class A AIS transponder performance (RF, messaging, environmental resilience).
    - (b) ITU-R M.1371 AIS message formats and protocols.
    - (c) IEC 61162 NMEA 0183, Ethernet/IP interfaces for ECDIS/radar integration.
- b. <u>Military Standards</u>. NATO STANAG 4668 Military AIS (M-AIS) for encrypted, tactical use or to be mentioned
- c. Encryption & Cybersecurity.
  - (a) AES-256 or higher.
  - (b) IEC 62443 Industrial cybersecurity for networked systems.
- d. National/Regional/International Compliance.
  - (1) Bangladesh Telecommunication Regulatory Commission (BTRC) VHF/HF frequency allocation.
  - (2) Commercial Shipping: IMO-compliant AIS.
- 21. Scope of Supply. The scope of supply is as follows, but not limited to:
  - a. 15 x Complete set of Ship-borne W-AIS consisting of followings (not limited to):
    - (1) VHF and GPS antennas.
    - (2) Control and Display Unit (Display with keyboard).
    - (3) Encryption and Security Module if any.
    - (4) Power Supply Unit.
    - (5) AIS Transceiver Module/ Host module.
    - (6) Data Interface Module if any.
  - b. ICD for interfacing with other equipment/system/sub-system.
  - h. Interfacing of W-AIS with ECDIS and onboard navigation radar.
  - c. Certification and Reports.
  - d. Drawing and Manual/ Documentation.
  - h. Spares (Optional).
  - Factory Acceptance Test (FAT).
  - k. Training.
  - Installation, Supervision and Setting to Work (STW).
  - m. Test, Trial and Acceptance.
- 22. Operating Modes. Each W-AIS should have following modes of operation:
  - a. W-AIS should have standard or normal operating mode in which it will act as class A commercial AIS.
  - b. It should have a silent mode in which it will receive only. In this reception mode, equipment should be able to receive from both commercial AIS in unencrypted mode and from other W-AIS in encrypted mode.



- c. It should have a tactical/secure mode in which it should be able to transmit and receive data in encrypted mode.
- d. It should have a hybrid mode in which it should transmit encrypted data for friendly forces and unencrypted synthetic data for enemy or target platforms in spoofing mode. At the same time it should be able to receive both encrypted data (from other W-AIS) and unencrypted data (from commercial AIS).
- 23. **Spoofing Mode**. Offered W-AIS should have spoofing mode in which it will be able to transmit false data set by users.
- 24. **Geofencing**. To be mentioned. If available, it should allow users to create virtual boundaries and receive alerts when vessels enter or exit specific areas.

## Data to be Displayed.

- a. Fixed/Static Data. Name, Call sign, IMO number, Length, Breath, Draught
- b. **Dynamic Data**. Heading, Position, SOG, COG
- Calculated Data. CPA, TCPA
- d. Voyage Related Data. Destination, Route plan

## 26. Physical Characteristics.

- a. <u>Dimensions</u>. Dimension of all the items to be mentioned
- b. Weight of all the items to be mentioned.

# 27. Environmental Condition.

## For Indoor Items.

Ser	Specification	Remarks	
1.	Temperature	-5°C to 55°C.	
2.	Relative Humidity	Up to 90% (non-condensing). MIL-STD-810F, MIL-STD-901D or equivalent (To be mentioned).	
3.	For Shock		
4.	For Vibration	MIL-STD-810F, MIL-STD-167, STANAG 4138 or equivalent (To be mentioned).	
5.	Sea Keeping	To comply with the ship's movement as follows:  (1) Roll: ±30°.  (2) Pitch: ±10°.  (3) Yaw: ±10°	
6.	EMI/ EMC MIL-STD-461 or equivalent (To be mentioned).		
7.	IP	Minimum IP44	

# For Antennas.

Ser	Specification	Remarks		
1.	Temperature	-5°C to 65°C.		
2.	Relative Humidity	Up to 90% (non-condensing).		
3.	For Shock	MIL-STD-810F, MIL-STD-901D or equivalent (To be mentioned).		
4.	For Vibration	MIL-STD-810F, MIL-STD-167, STANAG 4138 or equivalent (To be mentioned).		
5.	Sea Keeping	To comply with the ship's movement as follows:  (4) Roll: ±30°.  (5) Pitch: ±10°.  (6) Yaw: ±10°		
6.	EMI/ EMC	MIL-STD-461 or equivalent (To be mentioned).		
7.	IP	IP 66 or better		

## 28. Power Supply.

a. Input Specifications.

- (1) Input Voltage: 220V AC nominal (acceptable range: 85–264V AC)
- (2) Input Frequency: 50 Hz

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### b. Output Specifications.

- (1) Output Voltage 24V DC ±1% or 12V DC ±1%
- (2) Total Output Power: To be mentioned
- (3) Voltage Regulation: ±0.5% for input fluctuations; ≤1.5% for load variations

### c. Protection Features.

- (1) Overcurrent Protection: Should activate at 105–150% of rated load; auto-recovery upon fault clearance.
- (2) Overvoltage Protection: Should trigger at 115–135% of nominal output; auto-recovery upon fault clearance.
- (3) Short Circuit Protection: Hiccup mode; auto-recovery upon fault clearance.
- (4) Over temperature Protection: Should activate at excessive internal temperatures; auto-recovery upon cooling.
- (5) Surge and Spike Protection: Integrated transient voltage suppression to safeguard against voltage spikes.
- (6) Low Voltage Protection: Should have stable operation during input voltagesags

## 29. Interfaces.

## a. Unidirectional and Bidirectional.

- (1) Ethernet port.
- (2) 61162-2 (RS-422) port
- (3) RS 232 port
- b. **RF**. To be mentioned for VHF and GPS
- c. <u>USB</u>. To be mentioned.
- d. Cypher key Injection Port. To be mentioned

## 30. Interfacing Requirement.

- a. <u>Navigation Equipment</u>. The equipment should be able to interface to ECDIS and Navigation Radar using international protocols and standard (IEC 61162). Data exchange will done using standard RS-422/RS-232/ Ethernet port.
- b. <u>VSAT</u>. Offered W-AIS system must support integration with Very Small Aperture Terminal (VSAT) satellite communication systems to enable Beyond Line-of-Sight (BLOS) operations. This capability is crucial for maintaining continuous communication and data exchange during extended missions and in remote operational areas. The system should be compatible with the Navy's existing VSAT infrastructure and support secure, encrypted data transmission over satellite links.
- c. **GPS and Gyro**. It should be able to interfaced with GPS and Gyro using international protocol and standard.

## 31. Display and Keyboard.

- Display Dimension. To be mentioned.
- b. **Display Resolution**. Minimum 320 x 240 pixel.
- c. **Keyboard**. Type and number of buttons to be mentioned.

# 32. VHF Transponder.

a. Working Band.

155-163 MHZ.

b. Channel Width.

To be mentioned.

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C.	RF Power.	To be mentioned.
d.	Bit Rate TDMA.	Minimum 9600 bps.
e.	Modulation.	GMSK/FSK or to be mentioned.
f.	Sensitivity of the Receiver.	Minimum -113dBm.
g.	Adjacent Channel Sensitivity.	Minimum 70dB.
h.	Co-Channel Rejection.	Minimum 10 dB.
u.	Channel Spacing.	25KHz.

- 33. **GPS Receiver.** It should have an internal GPS receiver. GPS receiver will be used to acquire position data and time.
  - (a) No of Channels. Minimum 50
  - (b) <u>Accuracy</u>. To be mentioned.
  - (c) Antenna. May be combined with VHF antenna or may have separate antenna.
- 34. <u>Internal Storage</u>. Equipment should be able to store data upto 4GB on its internal storage. The stored data can be downloaded using suitable interface.
- 35. <u>Secure Mode Frequency Selection</u>. In Secure mode when W-AIS transmit and receive encrypted messages, the frequency can be set manually by users. Secure mode functions should conform with the NATO (STABG) 4668 and 4669.
- 36. <u>VHF Channels</u>. The equipment should have 3 x VHF channels. Two VHF channels will be used to transmit and Receive in standard commercial AIS data using 161.975 MHz and 162.025 MHz. It should have a third VHF channel to transmit secure encrypted data.
- 37. <u>Encryption</u>. Equipment should use minimum AES256 encryption mode. Encryption key should be injected manually by users (BN personnel).
- 38. <u>Standard Accessories</u>. Standard accessories must include every item and accessories, which are essential to make the offered WAIS 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.

## 39. Certificate and Reports.

- a. Following certificates and reports are to be provided in English for the offered item including associated equipment/ accessories with the offer:
  - (1) 'Type Approval Certificates' of classification society.
  - (2) Supply Assurance Certificate.
  - (3) Guarantee and Warranty Certificates.
  - (4) After Sales Service Support Certificate.
- b. Following certificates and reports are to be provided in English for the offered item including associated equipment/ accessories **during delivery**:
  - (1) 'Type Approval Certificates' of classification society.
  - (2) 'Quality Assurance Certificates' for each item and their associated equipment and instruments from OEM is to be provided.
  - (3) 'FAT Certificates'.
  - (4) Certificate of Genuine Product and Brand-New Item.
  - (5) Guarantee and Warranty Certificates.
  - (6) After Sales Service Support Certificate.



# 40. Drawing and Manual/ Documentation.

- a. <u>Installation Drawings</u>. Following drawings are to be submitted for buyer's approval prior 04 (Four) months of commencing of installation work:
  - (1) Layout drawing.
  - (2) Electrical inter-connection diagram of all equipment.
  - (3) Cable diagram including cable type and cable grouping.
  - (4) List of works (facility work support) those are needed from BN.
- b. <u>Manuals/ Document.</u> The BIDDER will have to provide following manuals both in soft copies and hard copies (03 complete sets each) for each supplied Equipment in English (including all the text in illustrations, drawings and circuit diagrams) at free of cost (but not limited to):
  - (1) Technical Manual.
  - (2) Operation Manual.
  - (3) Maintenance Manual including Fault Finding Flow Chart.
  - (4) Parts Catalogue Manual with Part Number.
  - (5) Installation Manual (with step-by-step installation procedure).
  - (6) Interface and Integration Manual (with details ICDs/ IRSs, Program, Procedures, etc).
  - (7) Any other information/documents which will be necessary to troubleshoot.
- c. <u>Interface Control Documents (ICD)/ Interface Requirement Specification (IRS).</u> The SUPPLIER will provide necessary ICDs (Interface Control Document), Interface Requirement Specification (IRS) and all interface protocol during delivery/ installation of W-AIS System. The ICDs/ IRSs and interface protocol will be utilized to integrate W-AIS System with shipborne other system/ sensors. The ICDs/ IRSs will be tested and shown to the PURCHASER's representative during installation.
- 41. **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.

Date Date Ministry of Detection

### 42. Local Training.

## a. Training Objective.

- (1) To acquire in-depth knowledge and learn the technology of W-AIS System with an aim to understand the complete technology (software, hardware, encryption, interface/integration, etc.) of W-AIS System including its operation, maintenance, common failures, diagnosis of the faults and troubleshooting.
- (2) The training will be combination of both theoretical, practical and On Job Training (OJT). However, practical training on installation, interface and integration of W-AIS System in different platforms will be conducted as OJT in Bangladesh.
- b. <u>Training Curriculum and Course Content</u>. The training will be conducted in Bangladesh. The training is to be provided in English Language. Training package should include hands on training on operation, maintenance, assembly, testing, interface, integration, installation, repair/ maintenance, etc.
- c. <u>List of Training</u>. The summary of required trainings is given below (not limited to, Bidder is requested mention if any additional training is required and if the duration of any training is needed to be extended):

Ser	Name of Training	Trainees	Duration
1.	Training on Operation of W-AIS Technology and Module Architecture	08 x BN Personnel	01 weeks
2.	Training on Maintenance of W-AIS Technology and Module Architecture	08 x BN Personnel	01 weeks
3.	Training on Interface, Integration and ICD/ IRS	04 x BN Personnel	02 weeks

d. <u>Expenditure of Local Training</u>. The cost of international and local airfare, accommodation, food and internal transportation (to and from worksite and hotel) of the manufacturer's engineer/ experts is to be borne by the SUPPLIER.

# Delivery.

- a. <u>Delivery Time</u>. The items shall be delivered to the "Place of Delivery" within **09** (Nine) months after signing the contract.
- b. Place of Delivery. NSD Chattogram/ NSD Khulna.
- c. Incase of CFR the supplier shall carry the items from sea port/ air port (as applicable) to NSD Chattogram/ NSD Khulna at the cost and risk of supplier.

# 44. Shipment.

- a. **Source of Supply**. The source of supply of the offered items are to be mentioned. It should be from the country of manufacturer or country of origin.
- b. **Port of Shipment**: The Port of Shipment of the offered items are to be mentioned. It should be from the country of manufacturer or country of origin.
- c. <u>Consignee</u>. 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

- d. 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.
- e. 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.



# 45. Installation, Supervision and Setting to Work (STW).

- a. <u>Installation Materials and Accessories.</u> 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. <u>OEM/ Qualified Supplier's Representative or Bidders' Scope of Work</u>. The offered WAIS along with its associated equipment shall be installed and commissioned by the OEM Engineer/ Qualified Supplier's representative. Installation includes STW, commissioning and Test/ Trial at Harbour and at Sea. In addition, OEM shall provide all necessary outputs from WAIS as per specifications and ensure necessary arrangements to make correction (if any), which shall be required for interfacing. The supplier at no additional cost shall do any modification/ alteration required to install the set. Available welding, cutting, paneling work facility in BN and assistance for equipment installation shall be provided by BN. In this regard, qualified manufactures'/ suppliers' representatives shall supervise. All other works shall be done by supplier. Any damage to onboard existing systems, items, equipment and machineries due to cable laying and installation of supplied WAIS shall be compensated by supplier to make damage items operational. The supplier shall mention about docking requirement at least 06 (six) months prior to said installation work. All expenses for food, accommodation, air fare and internal travel etc for installation engineers shall be borne by the supplier.

## 46. Test, Trial and Acceptance.

- a. The supplier's representative/ OEM engineer shall ensure satisfactory tests, trial and functioning/ commissioning of the equipment at purchaser's premises.
- b. <u>HAT</u>. Harbour Acceptance Test (HAT) shall be carried out at harbour on completion of setting to work (STW).
- c. **SAT**. Sea Acceptance Test (SAT) shall be carried out at sea on completion of satisfactory HAT.
- d. HAT and SAT Protocol. The HAT and SAT protocol/ procedures shall be approved by BN at least 06 (Six) weeks prior to commencement of individual schedule.

## e. Acceptance.

- (1) On completion of satisfactory Test/ Trial (HAT and SAT), an acceptance certificate shall be signed by Jointly BN/ purchaser and supplier.
- (2) The supplier's representative shall ensure satisfactory tests, trial and functioning/commissioning of the equipment at purchaser's premises. Supplier's representative shall also show operation and all functions of offered item during acceptance.

# 47. 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. <u>Bank Guarantee (BG) for Warranty.</u> The BIDDER shall issue a Bank Guarantee (BG) during submission of last 20% payment for a value of <u>@ 05% (Five percent) of the total CFR/CPT value</u> 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 WAIS 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. <u>Guarantee</u>. 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. <u>After Sales Service</u>. 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.
- 48. Validity. The offer shall remain valid till 30 June 2026.
- 49. <u>Terms of Payment</u>. 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 value being the value of the supplied goods, payment shall be made as under:
  - a. 1st Installment. 80% of CFR 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 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. <u>2<sup>nd</sup> Installment</u>. 20% of CFR/CPT value shall be paid **after successfully commissioning the** WAIS 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 WAIS.
  - (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) <u>Factory Acceptance Test (FAT)</u>. 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) <u>Local Training</u>. 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) <u>Installation and Acceptance</u>. 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.
- 50. **Price**. Price of the each item of the total offer is to be shown separately (e.g. price of the main equipment, additional accessories, Installation, local training, warranty/ guarantee etc) and then grand total of the foreign currency to be shown on the original offer submitted by the bidder. Moreover, if the item is imported against this tender, price to be quoted without import duties.
- 51. <u>Compliance Statement</u>. 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 WAIS, the deviation has to be spelt out clearly.

