

TENDER SPECIFICATION FOR PORTABLE SIDE SCAN SONAR (SSS)

1.	<u>Name of Equipment.</u> Portable Side Scan Sonar (SSS).		
2.	<u>Purpose.</u> The SSS system will be used for wreck survey, underwater object search and recovery operation, channel/clearance surveys in the coastal and riverine waters of Bangladesh.		
3.	<u>Quantity.</u> 01 (One) complete set of SSS.		
4.	<u>Brand/Model.</u> To be mentioned.		
5.	<u>Country of Origin.</u> UK, USA, Japan, Canada, Norway, EU countries (Name of the country to be mentioned).		
6.	<u>Country of Manufacturer.</u> UK, USA, Japan, Canada, Norway, EU countries (Name of the country to be mentioned).		
7.	<u>Name and Address of the Manufacturer.</u> To be mentioned (address, telephone, facsimile number, email address are to be mentioned).		
8.	<u>Date of First Introduction in the Market.</u> To be mentioned.		
9.	<u>Year of Manufacture.</u> 2026 or later.		
10.	<u>Qualification of Bidder.</u> Only genuine manufacturer or authorized dealer (Foreign principal) can submit quotation through authorized agents/dealer enlisted in the Directorate General of Defense Purchase (DGDP). For participation by agents/dealer, authenticity certificate is required.		
11.	<u>Scope of Supply.</u> The SSS will be supplied along with all accessories as per the specification mentioned in this document.		
12.	<u>Basic composition.</u> The SSS should comprise of the following basic units:		
	a.	Topside master control unit with accessories.	
	b.	Tow fish with accessories.	
	c.	Tow cable (Length of cable mentioned in serial 13.d)	
	d.	Display unit (Ruggedized Laptop) with accessories and necessary software installed (Price to be quoted separately).	
	e.	Acquisition and processing software	
	f.	Cable reel	
	g.	Other related Accessories.	
13.	<u>Technical Specifications.</u>		
	a.	<u>General Specification.</u>	
		Ser	Description Requirement
		(1)	Data output system Digital
		(2)	Dual (Simultaneous) frequency with CHIRP technology.
			(1) Low frequency (LF): 100-400 kHz. (To be mentioned)
			(2) High frequency (HF): 400-900 kHz. (To be mentioned)
		(3)	Pulse length (μs) To be mentioned with selectable option.
		(4)	Operating Range (m) To be mentioned against each offered frequency.

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		(5)	Horizontal beam width (deg)	To be mentioned.
		(6)	Vertical beam width (deg)	To be mentioned.
		(7)	Depression Angle (deg)	To be mentioned.
		(8)	Across Track Resolution (cm)	To be mentioned.
	b.	<u>Transceiver and Recorder Specifications.</u>		
		Ser	Description	Requirement
		(1)	Recording	Data recording should be on hard drive. Detail specification of the hard drive is to be given in the offer. Any other option for data recording (if available) in addition to the hard drive is to be mentioned. Hard Drive capacity should be 2 TB or more.
		(2)	Data processing and imaging capabilities	Full data processing and imaging capabilities should be available.
		(3)	Standard system interfacing capabilities	To be mentioned.
		(4)	File format	To be mentioned.
	c.	<u>Tow fish Specifications.</u>		
		Ser	Description	Requirement
		(1)	Length x Diameter	Length: 1-1.5m Diameter: 8.5-9.5 cm
		(2)	Weight in air	To be mentioned (Light weight is preferable).
		(3)	Depth rating (m)	200m or more.
		(4)	Transducer type and material	To be mentioned.
		(5)	Material used for tow fish	Stainless Steel.
		(6)	Standard Sensors	Heading, pitch, roll and pressure (depth) sensors to be available. Detail specification to be mentioned.
		(7)	Deployment methods	Should have the provision for manual deployment with portable winch/frame.
		(8)	Depressor	To be offered. Detail to be mentioned.
	d.	<u>Cable and Winch/Frame Specifications.</u>		
		Ser	Description	Requirement
		(1)	Type of tow cable	Kevlar Coaxial.
		(2)	Length of tow cable to be supplied	Three sets of cables with necessary accessories. Length & type is as follows: a. 300 meters (Co-axial) b. 100 meters (Co-axial) c. 50 meters (Armored) (Price to be quoted separately)

		(3)	Data cable	Sufficient length of data cable (Minimum Length: 5 m) is to be supplied. Details to be mentioned in the offer.
		(4)	Cable reel	To be offered. Detail to be mentioned in the proposal.
		(5)	Electric Winch (optional item)	Price is to be mentioned separately. It should be portable. Detail specification is to be submitted with the offer. Preferably, made of Stainless steels, drum capacity minimum 300m, 24V DC-740 W or more. The offered winch pully must be compatible to supplied cable.
		(6)	Pole Mount Bracket with accessories (optional item)	To be offered. Price is to be mentioned separately. Detail specification is to be submitted with the offer.
		(7)	Acoustic Pinger (optional item)	To be offered. Price is to be mentioned separately. Detail specification is to be submitted with the offer. The acoustic pinger must be compatible with offered SSS.
	e.	<u>Software Specifications.</u> Necessary software for data acquisition and processing is to be supplied. Name, version and detail specification of the software to be provided with the offer.		
14.	<u>Power Requirements.</u> The equipment should have following power supply option:			
	a.	10-28V DC		
	b.	220-230V AC		
	Detail of power supply requirement and consumption rate is to be mentioned in the offer.			
15.	<u>Performance in Environmental Condition.</u> Standard system performance and accuracy should be maintained in the coastal water of Bangladesh which is heavily laden with sediment and there also exist turbulence due to the melange of fresh water coming from upstream big rivers. Any degradation of system performance due to environmental condition is to be mentioned in the offer.			
16.	<u>Lifetime of the SSS.</u> Durability/Life time of the equipment should be at least 10 years.			
17.	<u>Condition of Equipment while Supplying.</u> The offered equipment must be brand new and in operational condition.			
18.	<u>Quality Management System.</u> To assess the quality management system (QMS) of the manufacturer, ISO or equivalent certificate has to be provided with the offer.			
19.	<u>Certificate/Document of Authentication.</u> The local supplier must provide following original certificate/document with the offer/quotation to ascertain the ingenuity of source and items in order to establish chain of links from the original source to supply items.			
	a.	One certificate/document by the manufacturer in favour of the supplier (In case of manufacturer as direct source).		
	Or			
	b.	Two certificates/documents, one by the manufacturer in favour of the authorized agent and other by the authorized agent in favour of the supplier (In case of authorized agent as immediate source).		
20.	<u>Manuals.</u> Following manuals are to be supplied free of cost with the equipment at the time of delivery (Both hard copy and soft copy):			

	a.	Two sets of operating manual in English.
	b.	Two sets of technical manual in English (If any).
	c.	Two sets of maintenance manual.
21.	<u>Test and Trial.</u> Supplier expert will carry out test and trial of the SSS on board suitable Bangladesh Navy Ship at Chattogram. Initial test and trial will be done at Harbour. Final trial will be conducted at sea with manufacturer representative on board. Cost of test and trial to be quoted separately.	
22.	<u>Acceptance.</u> On completion of satisfactory test and trial final acceptance certificate will be signed jointly by the representative of manufacturer and the buyer.	
23.	<u>Warranty.</u>	
	a.	At least 01 (one) year warranty after satisfactory acceptance by BN is to be provided.
	b.	For warranty repair/replacement, the supplier will collect the defective item from NSD Chattogram and re-supply the same to collecting place after warranty repair or replacement within 90 (ninety) days from the date of defect. Cost of the replaced unit/component including air freight is to be borne by the supplier.
	c.	Warranty period will be extended for the duration of non-operational time for the equipment.
24.	<u>Tools.</u> Tools required for servicing and maintenance are to be supplied with the SSS system at the time of delivery. List of tools are to be provided with the offer.	
25.	<u>Standard Accessories.</u> All standard accessories to be provided by the supplier. It must include every item and accessories, which are essential to install and operate the SSS in standard level, whether those are mentioned in this specification or not.	
26.	<u>Spares.</u> Following are to be given with the offer:	
	a.	Spares require for 05 years trouble free operation are to be quoted separately.
	b.	Supply of spares for minimum 10 years is to be ensured and in this regard a certificate is to be submitted in original pad of the manufacturing company.
	c.	List & price of consumable/spares are to be submitted separately.
	d.	If the item is of one time use/not reparable that is to be mentioned clearly.
	Note: Quoted price of spares will influence the evaluation of final acceptance.	
27.	<u>Optional Items.</u> Any optional items which may be provide are to be quoted, indicating item wise price. However, 100% performance guarantee of the main equipment is to be given without such optional items.	
28.	<u>Documents.</u> Following documents are to be submitted with the offer:	
	a.	Two sets of original catalogue/brochure in English.
	b.	List of standard accessories with pattern number and other specification.
	c.	List of optional accessories.
	d.	List of 10 years spares parts.
	e.	List of Tools.
	f.	User list.
	g.	Manufacture's authenticity certificate.
	h.	Design/drawing of portable installation method and associated fittings (if not included in original catalogue).
29.	<u>Record of Sale.</u> The offered SSS must be used by any of the reputed government Hydrographic Offices like SHOM (France), NOAA (USA), UKHO (UK), JHD (Japan), AHS (Australia), IIDM (Italy), KHOA (Korea) etc. Record of sale for last five years indicating year and name of the user to be provided in the offer.	
30.	<u>Validity.</u> Up to 30 June 2027.	
31.	<u>Shipments and Delivery.</u>	

	a.	The supplier will arrange shipment of all items by sea/air to Chattogram sea/air port, Bangladesh within 180 days from the date of contract signed.
	b.	All items are to be delivered in proper packing to ensure safe transit by sea/air.
	c.	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.
	d.	The supplier will supply the item at NSD Chattogram. While delivering, the supplier will carry the items from Chattogram sea/air port (as applicable) to NSD Chattogram at the cost and risk of supplier.
32.	<u>Place of Delivery.</u> Naval Stores Depot (NSD), Chattogram.	
33.	<u>Source of Supply.</u> The bidder is to mention the name, address and contact detail of original source from where the SSS will be imported.	
34.	<u>Port of Shipment.</u> Any port of the manufacturing country (to be mentioned).	
35.	<u>Consignee.</u> The commanding officer, Naval Store Depot, New Mooring. Chattogram/ The officer-in-charge, Naval Stores Sub Depot, Dhaka Bangladesh.	
36.	<u>Price without Import Duties.</u> Quoted price is to exclude all import duties as those will be consigned against BN.	
37.	<u>Terms of Payment.</u> Necessary letter of credit will be opened for full purchase amount in favor of the principal with the following terms of payment.	
	a.	80% of CFR value will be paid on delivery of the items described under the scope of supply on production of necessary shipping document.
	b.	Remaining 20% CFR value and 100% cost of test/trial amount will be paid after satisfactory acceptance by BN.
38.	<u>Condition for Acceptance of Quotation.</u> Quotation may not be considered if detailed information/specification, original maker's books and catalogue about the same model of the offered item, accessories, scope of supply etc are not provided.	
39.	<u>Compliance Statement.</u> A complete statement fulfilling all the requirements of the tender is to be submitted for evaluation as required:	
	a.	Article wise compliance report must be given. An incomplete compliance statement may attribute to cancellation of the offer.
	b.	If any clause of this specification does not commensurate with offered item, the deviation has to be spelt out clearly.