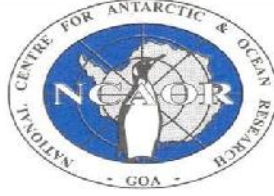


राष्ट्रीय अंटार्कटिक एवं
समुद्री अनुसंधान केन्द्र
पृथ्वी विज्ञान मंत्रालय
भारत सरकार
हेड लैण्ड सडा, वास्को डा गामा
गोवा- ४०३ ८०४ भारत



NATIONAL CENTRE FOR
ANTARCTIC & OCEAN RESEARCH
Ministry of Earth Sciences
Government of India
Headland Sada, Vasco da Gama
Goa - 403 804 - INDIA

Tel/Fax No.: 0091 0832 2525573

Email:warlu62@ncaor.gov.in

PROCUREMENT SECTION

Foreign Enquiry

Ref. No.:

ARCTIC-79

Date:

24.01.2014

Due Date:

12.02.2014

Dear Sir,

You are requested to send your offer for the following items as per the terms and conditions mentioned below.

SL. NO.	ITEM DESCRIPTION	QTY
1	Acoustic Doppler Current Profiler-WH Sentinel 300 kHz with buoy (specification in Annexure-1)	1

Your offer should contain the following information:

1. Submit your quotation on F.O.B/C.I.F basis.
2. Delivery Period:
3. Validity of quotation:
4. Quantity/Trade discounts, if any. :
5. Guarantee/Warranty of the product:
6. Taxes applicable (VAT if any):
7. Enclose brochure/leaflet – Specification:
8. **No advance payment** will be made. Payment by irrevocable letter of credit after supply and acceptance of the equipment by NCAOR. The payment will be authorized after submission of a Bank Guarantee for 10% value of the order towards warranty guarantee. The **performance Bank Guarantee** should be furnished within 15 days from the date of placement of order from a reputed bank (scheduled bank in India **or** foreign bank operating in India) valid till 60 days after the warranty period.
9. Overwriting and corrections should be attested properly. The quotation should be complete in all respects and should be duly signed. **Incomplete and unsigned quotation will not be considered at all.**
10. All relevant technical literature pertain to items quoted **with full specifications** (Drawing, if any), information about the products quoted, including brochures if any should accompany the quotation.
11. A list of **reputed clients** to whom the firm has supplied similar items to be furnished along-with the quotation.
12. Quotation should be **valid for a period of 90 days** and the period of delivery required should also be clearly indicated. If the supplier fails to deliver the goods within the time to be agreed upon, for delayed deliveries and for delays in installation (wherever applicable) NCAOR reserves the right to **levy liquidated damages** at the rate of 0.5% per week or part their of upto maximum of 5%.

13. Warranty shall commence from the date of installation and acceptance of the complete equipment supplied under the Purchase Order / Contract. The **warranty period** and the kind of **post-warranty support** should be indicated.
14. Please **specify the Make/Brand** and Name of the Manufacturer with address, country of origin and currency in which rates are quoted.
15. Both **FOB and CIF prices upto Indian port of entry** namely Goa should be indicated. However quotation should contain item-wise prices including total ex-works price and cost of packing forwarding, approx. cost of air-freight charges for delivery up to Goa, India.
16. A technical Committee constituted by the Director will assess the product supplied/installed for their quality and their conformity to the specifications provided by the firm in their quotations. Any item(s) identified by the Committee to be not as per the specifications or are found to be of inferior quality will be rejected, and the bills towards the supply will not be processed for payment till proper replacements are provided.
17. Suppliers should clearly define the mechanisms of **post-warranty** maintenance or support. Supplier should undertake to support the product for a minimum period of 5 years (post-warranty). Post Warranty, AMC charges for a period of 3 years (annual bases) should also be quoted separately in the quotation.
18. Two sets of operational, service/troubleshooting manuals and diagrams to be supplied with Acoustic Doppler Current Profiler-WH Sentinel 300 kHz with buoy.

Please enclose documentary proof such as latest purchase order copies etc., to substantiate the reasonability of price.

Also confirm that the “the rates quoted by you are reasonable and lowest charged to any of your customer”.

Director, NCAOR reserves the right to reject any quotation received without assigning any reasons.

Yours faithfully

**Executive (Procurement)
For and on behalf of Director, NCAOR**

Annexure-I

Acoustic Doppler Current Profiler-WH Sentinel 300 kHz with buoy.

Acoustic Doppler Current Profiler using broadband technology and Doppler shift principle to measure Current Velocities, Magnitude and Direction for the entire water column. Windows based software for data acquisition, export and data processing.

Specification:

- 1) **Frequency:** 300Khz
- 2) **Technology:** Broad Band with capability for long range operation
- 3) **No. of Beams:** 4 beams, convex
- 4) **Beam angle:** 20°
- 5) **Principle of operation:** Doppler shift
- 6) **Mode of operation:** User selectable Broadband and long range mode
- 7) **Maximum Profiling Range:** 154 m in long range mode
- 8) **Number of depth cells:** 1 to 255 depth cells
- 9) **Depth Rating:** 500m
- 10) **Velocity Accuracy:** $\pm 0.5\%$ of the water velocity relative to the ADCP $\pm 0.5\text{cm/s}$
- 11) **Velocity resolution:** 0.1cm/s
- 12) **Velocity range:** $\pm 5\text{m/s}$ (default), maximum up to $\pm 20\text{m/s}$
- 13) **Ping rate:** up to 10Hz
- 14) **Internal Memory:** 512 MB upgradeable to 2GB (PCMCIA)
- 15) **Internal Battery:** One 28-D cell alkaline battery packs 42VDC capacity 450 watt hrs.
Twelve months at 60 minute interval measurements
- 16) **Standard Sensors:** Temperature, Tilt & Compass
 - a) **Temperature : Range:** -5° to 45°C
Precision: $\pm 0.4^{\circ}\text{C}$
Resolution: 0.01°
 - b) **Tilt:**
Range: $\pm 15^{\circ}$ Accuracy: $\pm 0.5^{\circ}$
Precision: $\pm 0.5^{\circ}$
Resolution: 0.01°
 - c) **Compass: Accuracy:** $\pm 2^{\circ}$
Precision: $\pm 0.5^{\circ}$
Resolution: 0.01°
Maximum tilt: $\pm 15^{\circ}$
- 17) **Communication:** Serial port selectable by switch for RS-232 or RS-422, ASCII or binary output
- 18) **Baud rate:** 1200 to 115400 baud
- 19) **Pressure Sensor:** 500m rated
- 20) **DC Input: 20-60V DC.** Powered by internal battery pack, external battery pack or external power supply
- 21) **Operating temperature:** -5°C to 45°C
Storage Temperature: -30°C to 75°C
- 22) **Weight in air:** 13.0kg
Weight in water: 4.5 kg

Additional Requirements:

- 1) External Battery Pack to be installed within the ADCP buoy
- 2) Integrated Pressure sensor rated for 500m
- 3) ADCP and battery casing to be rated for 500 m depth
- 4) Velocity Post processing software
- 5) AC/DC power converter, 48VDC output
- 6) ADCP Buoy to be rated for 1000 m