



# NATIONAL CENTRE FOR ANTARCTIC & OCEAN RESEARCH

Ministry of Earth Sciences Government of India) Headland Sada, Vasco da Gama Goa - 403 804 - INDIA

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#### **PROCUREMENT SECTION**

FOREIGN ENQUIRY		
M/s.	Ref. No.:	<u></u>
	<b>Date:</b> 09.04.	2014
	01.05. <b>Due Date:</b>	2014

Dear Sir,

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

SL.	DESCRIPTION	Quantity
NO.		
1.	FLOW TRACKER (ACOUSTIC DOPPLER VELOCITY METER)	As Per
	(Specifications As Per Annexure-I)	Annexure-I

## 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 <u>Goa</u> 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.

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

### FLOW TRACKER (ACOUSTIC DOPPLER VELOCITY METER)

### **Performance Specifications:**

Velocity range: ± 0.001 to 4.0 m/s Velocity resolution: 0.0001 m/s

Velocity accuracy: ± 1% of measured velocity, ±0.25 cm/s Sampling volume location : 10 cm from centre transducer

Communication protocol: RS-232 Power supply: 8 AA batteries

LCD/Keypad unit: temporarily submersible to 1 m (3 ft)

Operating/Storage temperature:-20° to 50°C

#### **Essential features**

- The instrument should be very easy to operate and should automatically perform post processing work to avoid manual delay/errors in discharge computation. (At the end of the data run, it should be possible to calculate the discharge easily)
- The instrument should be unaffected by the presence of electromagnetic or ferromagnetic structures. The instrument should have no moving parts and should be calibration/maintenance free.
- The instrument should be designed for challenging outdoor conditions (such as rain, dust and temperature).
   The instrument should therefore be rugged and reliable.
- The instrument should measure 2D water velocity and it should attach easily to wading rods.
- The instrument should feature an automatic discharge computation using various international methods, including ISO and USGS standards.
- The instrument should be provided with 5-10m cable as the standard length.
- The sensor should be a low-profile 2D water velocity measurement sensor on 5-m flexible cable to measure in depths down to 2 cm (1 inch)
- The instrument should have automatic discharge computation protocols (ISO/USGS mid-section, mean-section, and Japanese). Velocity methods: ISO, USGS, under ice, Kreps, 5-point, multipoint.
- The instrument should have inbuilt recorder space: Up to 64 discharge measurements or over 150,000 individual velocity samples
- The instrument should have inbuilt QA/QC checks and discharge uncertainty calculations for improved reliability.
- The instrument should be provided with Windows-based software package that includes diagnostic beam-check, recorder access, data visualization, customizable reports, and multi-language support.
- Wading Rod 2.4 meter should be part of the supply.
- Wading Suite (Chest Waders) made of neoprene rubber should also be part of supplies.
- Shipping case should be part of the supply.
- A complete solution is required including:
  - ✓ 2D sensor probe
  - ✓ Controller and Keypad
  - √ 2-m flexible cable
  - ✓ Deluxe 2-piece, top-setting wading rod kit (1.2-m Metric or 4-ft English); includes case, mounting brackets
  - ✓ Wading rod mounting bracket for controller/keypad
  - ✓ Offset mounting bracket for ADV probe