

**National Centre for Antarctic & Ocean Research
(Ministry of Earth Sciences, Govt. of India)**

Headland Sada, Vasco-da-Gama,
Goa – 403 804. INDIA.

PUBLIC NOTIFICATION

No. NCAOR/PV/20 dated 8th September, 2017

Amended: 18th October 2017

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**GLOBAL INVITATION FOR EXPRESSION OF INTEREST FOR CONSTRUCTION OF
POLAR RESEARCH VESSEL**

National Centre for Antarctic & Ocean Research (NCAOR), an autonomous R&D institution under Ministry of Earth Sciences (Govt. of India) invites Expression of Interest (Eoi) from reputed shipyards for DESIGN, CONSTRUCTION, COMMISSIONING AND DELIVERY OF NEW POLAR RESEARCH VESSEL in the prescribed format. Pre-bid meeting shall be on 6th October, 2017 and Eoi Submission due date on 30th November, 2017 TIME 1300 hrs IST. The eligibility criteria and other details of the Eoi can be downloaded from NCAOR website <www.ncaor.gov.in> and Central Public Procurement Portal <https://eprocure.gov.in/epublish/app>

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Director-NCAOR

No. NCAOR/PV/20

GLOBAL NOTICE

inviting

EXPRESSION OF INTEREST

for

Design, Construction, Commissioning and
Delivery of
Polar Research Vessel



National Centre for Antarctic & Ocean Research (NCAOR)

(Ministry of Earth Sciences, Government of India)
Headland Sada, Vasco-da-Gama, Goa-403804, India.

8th September, 2017

[Amended on 18th October, 2017](#)

National Centre for Antarctic & Ocean Research (NCAOR)

(Ministry of Earth Sciences, Government of India)
Headland Sada, Vasco-da-Gama, Goa- 403804, India.

GLOBAL NOTICE INVITING EXPRESSION OF INTEREST

EOI Ref. No. NCAOR/PV/20 dated 8th September, 2017.
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National Centre for Antarctic & Ocean Research, an autonomous R&D institution under Ministry of Earth Sciences (Govt. of India) invites Expression of Interest (EOI) from reputed shipyards for DESIGN, CONSTRUCTION, COMMISSIONING AND DELIVERY OF NEW POLAR RESEARCH VESSEL in the prescribed format under sealed covers.

The last date and time of receipt of EOI will be 1300 Hrs (IST) on [30th November, 2017](#) and the EOI will be opened on [30th November, 2017](#) at 1400 Hrs (IST).

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The invitation to Expression of Interest is subject to compliance of instructions and conditions as per schedules below: -

1. Chapter . 1: Instruction to Prospective Bidders
2. Chapter . 2: General Information
3. Chapter - 3: The broad Scope of work or Service
4. Chapter . 4: Eligibility and prequalification criteria

Chapter – 1

Instruction To Prospective Bidders

- 1.1. Global Expression of Interest (EoI) under sealed cover is to be submitted at National Centre for Antarctic & Ocean Research (NCAOR), Headland Sada, Vasco-da-Gama, Goa . 403 804, India.
- 1.2. This is an invitation for EXPRESSION OF INTEREST and not TENDER. No payment will be made to the bidder/responder of such Expression of Interest.
- 1.3. The experience of the bidder should be provided in the formats given in Annexure-A along with documents for proof thereof.
- 1.4. The offers for EoI sealed in a cover and superscribed %EOI FOR POLAR RESEARCH VESSEL; DUE DATE 30th November, 2017; TIME 1300 hrs IST+ should reach Director, National Centre for Antarctic & Ocean Research, Headland Sada, Vasco-da-Gama, Goa . 403 804, India by the **due Date i.e. 30th November, 2017; Time 1300 hrs (IST)**. The offers will be opened on 30th November, 2017 at 1400 Hrs (IST), at NCAOR in the presence of the representatives of the bidders, if any. The sealed covers containing EoI not superscribed as above are liable to be ignored. Representatives of shipyards are welcome to attend the opening of EOI, so desire. Scrutiny of documents and evaluation of offer will be carried out subsequently and not on the same day.
- 1.5. It is the responsibility of the bidders to see that their offers in sealed covers reach the above address by due date and time. The fact that the offer has been posted in time will not bind the Director, NCAOR for considering the offer, in case such an offer is delayed in post or mislaid/misdirected due to incomplete or incorrect address / superscription or other causes.
- 1.6. An **authorized** representative of the shipyard may remain present at the time of opening of the offers for Expression of Interest.
- 1.7. The person signing the Expression of Interest Document should duly authenticate errors or corrections in the EOI, if any. Over-writing will not be accepted.
- 1.8. The Director, NCAOR reserves the right to accept or reject any offer or the whole process without assigning any reason to the shipyards, whatsoever.
- 1.9. Any kind of canvassing with regard to offered products services in connection with submission of EOI will lead to disqualification of the offers.
- 1.10. Expenses towards traveling for attending meetings pertaining to this EoI are to be borne by the prospective bidders only.

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Chapter – 2

General Information

2.1 This request for Global EOI is to shortlist the suitable shipyards that are capable of building a Polar Research Vessel for NCAOR.

2.2 Role of the shipyard will be to design, build, commission and deliver the vessel complete with all equipment, scientific instruments, systems, fittings, spares and documents on turn-key basis. Brief specifications of the vessel are given in Annexure-B.

2.3 Prospective Bidders should submit original (signed) proposal with all the documents systematically indexed for easy reference. A soft copy of the proposal with all documents may also be provided. [The bid documents for EOI signed by an authorised person is acceptable, submitted with authorization letter from CEO/CMD. Any document submitted in any language other than English, same should be accompanied by certified English copy.](#)

2.4 Prospective Bidders should provide detailed description of the background and organizational setup. The description should include ownership details, date and place of incorporation of the firm, location of facilities etc. Corporate dossier on CD/pen drive and print form may be included.

2.5 Prospective Bidders to submit details of Shipbuilding experience, Infrastructure details, technical and commercial information as per formats specified at Annexure-A and Annexure-D. A soft copy is also to be provided.

2.6 Based on the response to the EOI, the prospective bidders will be short-listed. Such short-listed bidders will be issued the Request for Proposal (RFP) document which will contain detailed technical specifications, terms & conditions, model contract etc. These yards will be requested to submit the bids in two-bid format (technical and financial bids) as per the guidelines given in RFP. The shortlisted yards shall also receive information that is to be kept confidential and shall sign a Non-disclosure agreement with Director, NCAOR before issue of RFP. Only the price bids of technically acceptable bidders will be opened for further evaluation.

2.7. The guidelines issued by Ministry of Shipping, Government of India, with respect to new shipbuilding projects of Government of India departments, would be followed. <http://shipping.gov.in/showfile.php?lid=2296>

2.8. Bidders shall also have to essentially sign an Integrity Pact (IP) as at Annexure-F for participating in this Expression of Interest, duly signed by the same signatory who is authorized to sign the bid documents. All the pages of the Integrity Pact shall be duly signed. The Integrity Pact would be implemented through a panel of two Independent External Monitors (IEMs) appointed by the Ministry of Earth Sciences. The names and contact details of the IEMs are mentioned in the Annexure-F. The IEM would review independently and objectively assess, as to whether and to what extent parties have complied with their obligations under the IP. Also, IEM would have access to all contract documents, whenever required. The bidders may raise disputes / complaints if any, with the IEM.

2.9 Pre-bid Conference

2.9.1 Interested bidders may attend the pre-bid conference to be held on 6th October, 2017 at 1000 hrs (IST) at NCAOR, Goa, wherein NCAOR's position on the issues raised by the bidders will be discussed / clarified. All the terms and conditions would

be frozen after the pre-bid conference. No change in EoI conditions will be permissible thereafter.

- 2.9.2. The bidders are requested to submit any query / clarification (if any) on EoI document, by e-mail (prv1@ncaor.gov.in) or fax to reach NCAOR on or before 3rd October, 2017 for deliberation in the pre-bid conference. Bidders queries must be organized in the same order as that of EoI document.
- 2.9.3 Non-attendance at the pre-bid conference shall not be a cause for disqualification of a bidder. Every effort will be made to provide deliberation of pre-bid conference proceedings to the best possible communication skill. Every bidder may avail the opportunity of pre-bid conference to get first hand details of the proceedings, in their own interest.
- 2.9.4. Any modification of EoI document, decided during the pre-bid conference will be notified within 7 working days of pre-bid meeting on NCAOR website. Subsequent to the pre-bid conference, all terms and conditions will be treated as frozen. If there are no modifications envisaged in pre-bid conference, there will not be any update in the website.

Chapter - 3

The Broad Scope of Work or Service

- 3.1. Shipyards will be expected to provide following products and services, but not limited to, as part of their obligation. They will be required to carry out the works meeting all the Class and Statutory requirements;
 - 3.1.1 Preparation of basic design, model testing, detailed design and engineering
 - 3.1.2 Finalization of the marine & scientific equipment and layout etc. in consultation with NCAOR or its authorized representative.
 - 3.1.3 Procurement and installation of all material and equipment
 - 3.1.4 Building the vessel in yard premises as per the contractual terms and agreed specifications.
 - 3.1.5 Extend cooperation to provide suitable facilities to the owner's representatives in supervision of the vessel's construction work.
 - 3.1.6 Commissioning of all equipment and services to the satisfaction of site supervisors and also to provide suitable office space to NCAOR site team.
 - 3.1.7 Conducting Inclining experiment, basin / harbor trials, sea-trials including acceptance trials for scientific systems and ice-trials etc.
 - 3.1.8 Delivery of the vessel after completion of all works as per Contract.
- 3.2. Brief outline Specifications of the Vessel are given at **Annexure-B**.

Chapter – 4

Eligibility and Prequalification Criteria

4.1 The prospective bidder must be a reputed shipyard fulfilling all the eligibility criteria as specified in the following paragraphs.

4.2 Technical Criteria: The prospective bidder has to fulfill the following conditions to get qualified for the project.

- a) The bidder should have designed, built, commissioned and delivered in the last 20 years
- (i) an ice class vessel (minimum class notation PC7 or equivalent); and a research vessel with documented URN standard with noise levels as specified in DNV Silent-A notation, both these vessels with a minimum LoA of 80m.

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OR

a Polar Research Vessel with a minimum LoA of 80m with minimum class notation PC7 or equivalent and documented URN standard with noise levels as specified in DNV Silent-A notation.

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- (ii) Details in the format at Annexure-A (1A) along with relevant documents as proof to be submitted. The vessels referred to in experience of yard should be in operation and the bidder to furnish ownersqfeedback regarding satisfactory performance.

- b) The bidder should have in-house design and engineering capability for ice breakers and research vessel of its own and they should have designed and delivered similar type of vessels as mentioned in the above clauses 4.2.(a) in the last 20 years.

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It may use the services of reputed and capable designer(s) with proven experience who (the details of the designer to be engaged to be provided) should have done basic design and detailed engineering, in last 20 years, of below vessel successfully delivered.

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- (i) At least one ice class vessel (minimum class notation PC7 or equivalent), of minimum 80m long and one research vessel of 80m long;

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- (ii) At least one ice class vessel (minimum class notation PC7 or equivalent), cum research vessel of minimum 80m long.

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(Details in the format at Annexure-A (1B) along with relevant documents as proof to be submitted. The vessels referred to in yard experience should be in operation and the bidder to furnish ownersqfeedback regarding satisfactory performance.)

Note 1: 30th Nov 2017 shall be considered as cut-off date for the last 20-years window i.e. the vessels referred by the bidders for shipbuilding and design experience should have been delivered on or before 30th Nov 2017.

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Note 2: Same bidder (shipyard) cannot give more than one bid. A shipyard may submit offer either on its own or as a lead bidder or a collaborator. Thus, one shipyard can participate through one channel only.

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Note 3: The shipyard which ties-up with the designer who meets the criteria 4.2.b must ensure that the designer is not offering services to any other shipyard for this same PRV project. Thus, the designer can

Expression of Interest for PRV

provide services to this PRV project through one shipyard only. And, consortium between designers is not allowed. Undertaking to this effect to be submitted as at Annexure-H.

Note 4: Research Vessel mentioned in above clause 4.2 is defined for evaluation purpose as follows : The vessels falling under the category of Research Vessels, Hydrographic Survey Vessels, Seafloor Mapping and Survey Vessels, Seismic Survey Vessels and having atleast 6 facilities out of (i) Multibeam Echosounder, (ii) CTD including CTD winch, (iii) A-frame capable of facilitating deep towed instruments and sampling systems at 6000m water depth, (iv) Seabed samplers and associated winch systems operable at 6000m water depth, (v) Automatic Weather Station, (vi) Min 250 sq.m. lab area, (vii) DP system, (viii) Gravimeter and (ix) Analytical Instruments like Autoanalyser etc.

- c. The proposed Polar Research Vessel being a specialized ice breaker research vessel, Indian shipyards interested in this project should have a suitable tie-up with ship designer meeting the criteria at 4.2(b). Also, the Indian shipyards should ensure availability of experienced workforce for execution of the critical construction jobs pertaining to ice breaking capability, sub-zero temperature operations and research facilities and monitoring of vessel construction through a tie-up with an experienced shipyard meeting the criteria at 4.2 (a) or by hiring experienced work force (as detailed at Annexure-G) for this project. The prospective Indian shipyards will be required to submit formal MoU fulfilling these criteria alongwith the RFP document. Willingness (as per the format at Annexure-H) to comply with the above should be submitted along with the EoI.

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The Indian shipyards should also have capacities as at Annexure-C which should be certified by an RO of the Government of India who is an IACS member and the certificate be submitted as part of EoI. The details in the format at Annexure-D with relevant documents to be submitted **as part of EoI** for information.

4.3. **Commercial Criteria.**

- a) Net Worth of prospective bidder must be positive for last 03 (Three) years. The annual reports with audited financial statements consisting of balance sheet, trading, profit & loss account and audit report for last three years should be enclosed. And also a certificate from the Chartered Accountant stating the net worth is positive/negative during the each year 2014-15, 2015-16 and 2016-17 to be submitted.
- b) The annual average turnover of the prospective bidder, for last three years should be at least INR 315 Crores (or 49.5mn US \$ or equivalent).
- c) In case of Indian shipyard, it should have positive net worth during immediate preceding financial year (2016-17). If the Indian shipyard does not have a positive net worth as required during the immediate preceding financial year (2016-17), it should provide a Letter of Comfort from Scheduled Banks or lending institutions (approved by RBI with minimum CRISIL-BBB rating or equivalent) indicating to provide necessary financial support (at least Rs. 600 Cr) to execute the project as per the format prescribed in Annexure-E. The annual reports with audited financial statements consisting of balance sheet, trading, profit & loss account and audit report for preceding financial year (2016-17) should be enclosed. In case the audited statement is not ready, the bidder should provide the annual turnover certified by the Chartered Accountant for the year 2016-17. And also a certificate from the Chartered Accountant stating the net worth is positive/negative during the year 2016-17 to be submitted.

Note : CA certificate is required for Indian bidders. For foreign bidders, CA certificate or equivalent is acceptable. In case this is in language other than English, a certified translated copy in English to be provided.

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4.4 **Other Documentation (In English Language).** The bidder to provide the following:-

- (a) Details of established and independently certified QHSE (Health, Safety and Environment Systems)
- (b) Company profile, reference list and reference letters from clients.
- (c) Present work commitments (please provide current contractual position and committed and expected delivery dates). Details to be as per Table 1C of Annexure-A.
- (d) **Infrastructure Details** . Please list all the resources available like yards location, design & planning resources, cutting facilities, erection facilities, slip ways, dry-docks, Manpower . employed and contracted, painting facilities, assembly facilities, launching draft, building berths, covered and open sheds, testing and QA/QC facilities etc. at the yard while giving information for the tables at Annexure-A and Annexure-D. The prospective bidders will be short-listed based on their proposals and on having met the criteria mentioned above. The Director, NCAOR or his representatives may visit the yards and / or interact with them to assess claims made by the prospective bidders.

ANNEXURE-A

Shipyard's experience in similar work or service.
(To assess the shipyard against criteria as per para 4.2)

Table-1A

FORMAT FOR PRESENTING PAST SHIPBUILDING EXPERIENCE
(Relevant documents as proof to be submitted)

S No	Detail of client/vessel							Details Of Dynamic Position System and Propulsion system
	Name of Owner (with Contact details)	Name of vessel / IMO No.	Duration of contract (contract signing to delivery period) contractual / actual	Class Notation of the Vessel, Ice breaking capability	Date of Delivery Contractual/ Actual	Details of scientific equipment fitted	Proof (Specs, GA Plan, owner certificate of satisfactory service / protocol of delivery)	
1	2	3	4	5	6	7	8	9

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Table-1B

FORMAT FOR PRESENTING PAST DESIGN / ENGINEERING EXPERIENCE
(Relevant documents as proof to be submitted)

S No	Detail of client/vessel								Details Of Dynamic Position System and Propulsion system
	Name of Owner (with Contact details)	Whether in-house design. If outsourced, the name of Design firm (if hired by shipyard or consortium partner)	Name of vessel / IMO No.	Duration of contract (contract signing to delivery period) contractual / actual	Class Notation of the Vessel, Ice breaking capability	Date of Delivery Contractual/ Actual	Details of scientific equipment fitted	Proof (Spec, G A Plan, owner certificate of satisfactory service/protocol of delivery)	
1	2	3	4	5	6	7	8	8	9

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Table-1C

**FORMAT FOR PRESENTING CURRENT SHIPBUILDING ORDERS
(Ref 4.4 (c))**

(Relevant documents as proof to be submitted)

S No	Name of Owner (with Contact details)	Name of vessel	Detail of client/vessel				Proof (Specs, GA Plan, owner certificate of satisfactory service / protocol of delivery)	Details Of Dynamic Position System and Propulsion system
			Duration of contract (contract signing to delivery period)	Class Notation of the Vessel, Ice breaking capability	Expected Date of delivery	Details of scientific equipment		
1	2	3	4	5	6	7	8	9

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ANNEXURE – B

BRIEF OUTLINE SPECIFICATIONS OF THE VESSEL.

1. **Primary Role.** Polar Research and logistic support for scientific expeditions to Polar Regions.

2. **Principal Particulars (indicative)**

Length over all	132 m
Length between p.p	121 m
Beam	23.0m
Depth to upper deck	11.5m
Design draft	8.0m
Deadweight at 8.0 m mld draught approx	6500 tonnes
Working deck area approx	500 m ²
Speed (Transit)	14 at sea state 4
Polar Class	IACS PC5
Dynamic Positioning	DP2
Hydro acoustic noise	Silent-A
Endurance	120 days
Accommodation(Crew & Scientists)	85 (Scientists-45, crew-40)
Working deck load bearing	Upto 10T/m ²
Laboratories area approx	450 m ²
Clean Scientific Laboratories	Different types
Cargo	44 TEU and loose cargo
Fuel carriage for Antarctic stations	1250 KL of Jet A1 Fuel in hull integrated tanks
Helicopters carriage	Flight deck and hangar for 2 helicopters

- 3. Class rules and regulations.** The Vessel with engines and equipment shall be designed & built under the dual class of IRS and one of the classification societies from **DNV-GL, BV, ABS and LR** and shall comply with:-
Class Notations (DNV-GL notations given as reference): DNV+1A1, PC5, HELDK, SPS, E0, CLEAN DESIGN, NAUT-AW, DPS2, LFL*, TMON, SILENTA, VIBR, COMF V(3)-C(3), WINTERIZED COLD(-15, -35)

Compliant with IMO Res.MSC.266(84) Code of Safety for Special Purpose Ships 2008.

Compliance to Indian Merchant Ships (IMS) Rules Class VIII.

Rules and regulations published and known at the time of contract signing and which are to become applicable before the date of delivery of the vessel are to be complied with.

- 4. Ice Breaking Capability.** The ship to have year round ice breaking capability in medium first year polar ice and ramming in old ice inclusions as per PC5 notation.

5. Sea Keeping.

Vessel should be able to maintain speed and course in the following sea states at full displacement:

14 knots cruising through sea state 4.

11 to 12 knots cruising through sea state 5.

Ability to safely heave to and ride out bad weather in sea states 7 and above

- 6. Propulsion and powering.** The vessel is to be propelled by Twin Screw Diesel Electric System. Four Genset of 4000 KW each will produce a total power of 16000KW. Each shaft is to be powered by two electric motors of 3000 KW each through a gear box and CPP. The ship will be fitted with one retractable azimuth thruster of approx. 1700 KW in the astern and two tunnel thrusters of 2200 KW each in the bow. Bow and stern thrusters required for Dynamic Positioning System are also to be electrically driven. The powering figures are indicative and final values to be arrived at after the model test results. The power of generator sets and bow/stern thrusters shall be based on the vessel's speed and DP requirement. The Generator engines shall be NO_x III compliant as per MARPOL Annex VI.

- 7. Construction.** The vessel is to be all of steel, welded construction, double hulled, meeting the requirements of Code of Safety for Special Purpose Ships, 2008; and Guidelines for ships operating in Arctic Ice Covered waters as amended, all applicable SOLAS, MARPOL, Classification and Indian National Regulations.

8. Service Life of vessel

The vessel is expected to have a service life of minimum 35 years with normal maintenance. The vessel is expected to be at sea for about 300 days in an year.

- 9. Helicopter facilities.** The vessel should have a flight deck onto which a Kamov / Super Puma or similar helicopter can land while the vessel is heave to or moving in a direction favourable for the operation. Hangar for two helicopters.

- 10. Lifeboats.** Totally enclosed lifeboats for all souls onboard, with launching arrangements are to be provided on port and starboard sides. Rescue boats and all other lifesaving equipment are to be provided as per statutory requirements.

11. Handling Equipment (tentative).

One (1) dual offshore rated twin deck crane: Capacity shall be 2 x 25 t SWL, 24 m capacity capable of operating in tandem, 12-15 m outreach beyond the edge of the vessel.

One (1) service crane . capacity -5 tons SWL15 m beyond the edge of vessel

One (1) service crane . capacity 10 tons SWL16 m beyond the edge of vessel

One foldable deck utility crane of SWL 2 tons . 11m capacity to be installed on port side aft

One (1) A frame: capacity shall be 25 t SWL, 8m outreach.

One (1) A frame: capacity shall be 25 t SWL, 2-3 m outreach.

Two (2) CTD davits: capacity shall be 5 t SWL, 4-5 m outreach. (for two CTDs)

Winch No. 01 . Deep sea Oceanographic winch

Winch No. 02 . Oceanographic/CTD winch 2

Winch No. 03 . Oceanographic/CTD winch 3

Winch No. 04 . Portable electric winch (for side scan sonar) to be installed in accordance with operational requirements.

Winch No. 05 . Portable electric winch (for magnetometer) to be installed in accordance with operational requirements.

Winch No. 06 . Portable scientific standby winch to be installed in accordance with operational requirements.

Winch No. 07 . Portable scientific mooring winch to be installed in accordance with operational requirements

12. Dynamic Positioning System. The DPS to be redundant in compliance with DPS2 requirement. The vessel should be capable of maintaining position within a radius of 20 metres in SS 2, 10 knot wind and 2 knots current.

13. Integrated Platform Management System (IPMS) comprising of Modern integrated bridge for navigation, Automated Power Management System (APMS), Integrated Machinery Control System (IMCS), and Auxiliary Control System (ACS).

14. MAJOR ONBOARD SCIENTIFIC EQUIPMENT

1. Multi Plankton Sampler, Other biological samplers
2. Microscopes
3. Single and Multibeam Echo sounders
4. Sub-Bottom Profiler
5. Side Scan Sonar
6. Hydraulic Piston Corer and other sea bottom samplers.
7. Integrated data acquisition, processing system.
8. Gravimeter / Magnetometer
9. Core scanner
10. Atmospheric equipment
11. CTD (with winch) . 2 nos
12. Thermosalinograph
13. ADCP
14. Salinometer
15. XBT
16. Autoanalyser, Spectrophotometer and other analytical instruments.
17. Computers / Printers / Plotters etc
18. Various other equipment and accessories / facilities.

ANNEXURE-C

TECHNICAL QUALIFICATION TEMPLATE (for Indian Shipyards)

To be certified/verified by an RO of the Government of India who is an IACS member and to be submitted along with the bid.

Sl.No	ITEM/PARAMETER	Essential requirements (Details to be provided for each item)
A. FACILITIES/CAPABILITY		
1	Building Capacity	Annual Capacity- Steel preparation (cutting) capacity at least 12,000 tones. Steel fabrication capacity- (Minimum 12,000T).
2	Erection facility (dry dock/ slipway/over the ground)	Dimensions (L X B) to be up to (160 X 32M) OR commensurate with ship size.
3	Capacity of cranes servicing the erection/ pre-erection area-specific type	Capacity to be at least 1 X 50T EOT/ Mobile/gantry.
4	Quay/ Water front/ Building Berth	a) Length of quay/ Water front/ Building berth available for outfitting to be between 100m to 160m OR commensurate with ship size. b) Nos. of vessels which can be simultaneously berthed for outfitting work to be indicated.
5	Detailed design and Engineering	Yard to have adequate in-house detailed design and engineering capability.
6	Painting Shop	To be preferably PSPC compliant (i.e. to be fitted with temperature and humid control) else in-situ painting with humidity controls (i.e. dehumidifiers) and established quality control to be in place. Area to be mentioned
B. STANDARDS		
1	Quality control/ Assurance	To have valid ISO 9001:2008 Quality management system certificate.
2	Safety Management System	Yard to be registered under factories act. In house safety checks and records thereof to be available for inspection. To have safety policy in force.
3	Environment Management System	Yard to have suitable policy covering pollution mitigation measures.

C. OTHER RESOURCES		
1	Steel stock yard capacity	To be indicated in terms of tons which can be stored in the stock yard (at least 1000 Tons)
D. FINANCIAL CRITERIA		
1	The Shipyard should have net worth during the immediate preceding financial year. In case an Indian shipyard does not have a positive net worth as required during the immediate preceding financial year, it should have a Letter of Comfort from its banks/ lending institutions indicating to provide necessary financial support (at least Rs. 600 Cr) to execute the project.)	

ANNEXURE-D**GENERAL INFORMATION ON SHIPYARD AND MANAGEMENT**

S.No	Element	Description required
1	Name of the Organization & address	
2	Details of Contact Person	
3	Year Established	
4	Type of Organization Proprietary/Partnership/Public Limited company/ Government PSU/Others (please specify)	
5	Product Profile in terms of types of ships built	
6	Details of Collaboration if any	
7	Annual Turnover in Last Three Years	
8	Bankers	
9	Details of Key Customers Served in the Last 3 years.	Yard to furnish ownersqfeedback regarding performance/quality/after sales service of recently delivered vessels
10	Details of Firm Orders in Hand To indicate list of vessels on order with details such as type, size, deadweight, construction/delivery schedule etc.	
11	Details of Applicable statutory taxes Paid in the Last 3 years as well as details of pending claims of the tax/ revenue authorities including provisions made for the same.	

12	No. of Painting shops/area To indicate nos. and area of enclosed blasting and painting shops/open area available	
13	Warehouse To indicate area and facilities available for warehousing.	
14	Logistics Accessibility/ location of yard with respect to procurement	
15	Permanent Employees (Employees on pay-roll to be indicated) Contract Employees	
16	Dedicated Staff in Quality Control Department To be indicated	
17	Dedicated staff in Safety (HSE) Department To be indicated	
18	After-Sales personal Dedicated personal to be indicated	

ANNEXURE - E

(FORMAT FOR COMFORT LETTER FROM BANK)

<Bank Name & Address>

Dear Sirs,

This is to confirm that our Client, [Redacted] .. <Name of Shipyard> maintains bank account with us and is in good standing with our bank.

As informed by our Client, for bidding for **the Design, Construction, Commissioning and Delivery of New Polar Research Vessel for NCAOR, Goa** (Name of Project), the Client has to submit a comfort letter from bank.

At his instructions, we, (bank name & address), with full authority and mandate hereby confirm that said client is financially able to mobilise an amount of Indian **Rs. 600 Crore** for which the bank will provide financial assistance as required by the client.

We, (Client's bank), confirm to transfer the referenced amount as per instructions of our Client.

We certify that our Client, named above, has credit facilities with our bank to complete the proposed (Name of project) within the time period specified.

Our Client hereby gives authority to the Ship Owner to procure usual banker's references from the authorized officer of the Bank <Full name and designation of the bank officer>.

Yours sincerely,

[Redacted Signature]

Signature by a senior level bank officer

Full name of the signatory:....[Redacted]

Designation of the signatory:[Redacted]

Client's Name as written in account:[Redacted]

Account No/ IBAN:[Redacted]

Bank Telephone No:[Redacted]

Bank's Fax No:[Redacted]

Bank SWIFT/Sort Code:[Redacted]

Bank stamp/ seal:[Redacted]

ANNEXURE – F**Draft Format: PRE-CONTRACT INTEGRITY PACT****General**

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on _____ day of the month of _____ 2017, between, on one hand, the Director, National Centre for Antarctic & Ocean Research, Headland Sada, Goa, India (hereinafter called the %BUYER+, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s _____ represented by Mr. _____, Designation, (hereinafter called the %BIDDER+ which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure a Polar Research Vessel (herein after called the %PRVq which expression shall mean and include, unless context otherwise requires) and the BIDDER is willing to offer / has offered the same and

WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is an autonomous R&D institute under Ministry of Earth Sciences, Government of India performing its functions in oceanographic and polar research.

NOW, THEREFORE,

To avoid all forms of corruptions by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the BUYER to acquire the PRV at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures:

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the BUYER

- 1.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such

information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.

- 1.3 All the officials of the BUYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 2 In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

Commitments of BIDDERS

3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-
 - 3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
 - 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.
 - 3.3 BIDDERS shall disclose the name and address of agents and representatives in India.
 - 3.4 BIDDERS shall disclose the payments to be made by them to agents / brokers or any other intermediary, in connection with this bid/contract.
 - 3.5 The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/integrator/shipbuilder and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
 - 3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is

committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

- 3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The BIDDER shall not use improperly, for the purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest / stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender. The term ~~relative~~ for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

4. Previous Transgression

- 4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
- 4.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

- 5.1 While submitting commercial bid, the BIDDER shall deposit an amount (as will be specified in RFP) as Bid Security Bond with the BUYER through the instruments as specified in the RFP.
- 5.2 The Bid Security Bond shall be valid up to a period, as will be specified in RFP, from the date of opening of bids and be suitably extended as requested by NCAOR.
- 5.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to Performance Bond in the Contract that the provisions of Sanctions for violation shall be applicable for forfeiture of Performance Bond in case of a decision

by the BUYER to the forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

5.4 No interest shall be payable by the BUYER to the BIDDER on Bid Security Bond for the period of its currency.

6. Sanctions for Violations

6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-

- (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
 - (ii) Forfeiture of the Security Bid Bond (in pre-contract stage) and/or Performance Security Bond (after the contract is signed) stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
 - (iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
 - (iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - (v) To encash the advance bank guarantee and performance bond/ warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
 - (vi) To cancel all or any other contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
 - (vii) To debar the bidder from participating in future bidding processes of the Government of India for minimum period of five years, which may be further extended at the discretion of the BUYER.
 - (viii) To recover all sums paid in violation of this pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
 - (ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by BUYER with the BIDDER, the same shall not be opened.
 - (x) Forfeiture of Performance Bond in case of a decision by the OWNER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1 (i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of

an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

- 6.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Fall Clause

- 7.1 The BIDDER undertakes that it has not supplied/is not supplying similar PRV at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the different in the cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded.

8. Independent Monitors

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement

Contact details of Independent External Monitors:

1) Shri. Arun Kumar,
Ex-Secretary, Oil Industry Development Board (OIDB),
B-38, Vrindavan Apartment, Plot No.1, Sector-6, Dwarka,
NEW DELHI . 110 075. INDIA.
(kumararun_53@rediffmail.com mobile phone: 0091-9810621113)

2) Shri. Sushil Gupta,
Ex-Chairman, Central Ground Water Board (CGWB),
No. B-702, Aravali Heights, Sector 21C,
FARIDABAD . 121 001. INDIA.
(sushilanitagupta@yahoo.com mobile phone 0091-9999744061)

- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The Monitors shall not be subjected to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual

obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.

8.7 The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.

8.8 The Monitor will submit a written report to the designated Authority of BUYER/Secretary in the Ministry within 8 to 10 weeks from the date of reference or intimation to him by the BUYER / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

11. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

12. Validity

12.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

12.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intensions.

13. The parties hereby sign this Integrity Pact at _____ on _____

BUYER
Name: _____ .
Director
National Centre for Antarctic & Ocean Research.

BIDDER
CHIEF EXECUTIVE OFFICER

Witness
1. _____
2. _____

Witness
1. _____
2. _____

ANNEXURE-G

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Skilled Workforce Requirement

<u>S.No</u>	<u>Type Of Manpower</u>	<u>Educational qualification</u>	<u>Minimum Experience</u>
<u>1. Manpower:</u>			
a)	<u>Naval architect:</u> minimum 01 Naval Architect. <u>Should be available for NCAOR-PRV project from the commencement of the project till the delivery.</u>	<u>Bachelor Of Naval Architecture or equivalent</u>	<u>05 Years with a shipyard who must have been part of the project execution team that was responsible for construction of an Ice Breaker with minimum PC7 class or ICE 1A or equivalent.</u>
b)	<u>Electrical/Instrument Engineers:</u> minimum 01 member <u>Should be available for NCAOR-PRV project on completion of the Model testing till the delivery.</u>	<u>B.E(Electrical/Instrumentation/Electronics) or equivalent</u>	<u>Experience in research equipment selection, purchase, integration, trials etc for atleast one research vessel.</u>
c)	<u>Marine/Mechanical Engineers:</u> minimum 01 member <u>Should be available for NCAOR-PRV project on completion of the Model testing till the delivery.</u>	<u>B.E(Marine/Mechanical Or equivalent)</u>	<u>05 Years with a shipyard having been involved in construction of a Polar class vessel with minimum PC7 or equivalent notation.</u>
d)	<u>Welders</u> <u>10 members, should be available for NCAOR-PRV project on completion of the Model testing onwards.</u>	<u>Duly certified by class with minimum grade 4G(8 nos.) & 6G(2Nos.)</u>	<u>03 years with a shipyard</u>
e)	<u>Weld Radiographers</u> <u>2 members, should be available for NCAOR-PRV project on completion of the Model testing onwards.</u>	<u>Duly certified by ASNT for NDT Level III or equivalent.</u>	<u>03 years with a shipyard</u>

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ANNEXURE-H

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Willingness / Undertaking Format

(To be enclosed as part of Expression of Interest proposal on the letterhead of the bidder)

To _____ Date - _____

The Director,
National Centre for Antarctic & Ocean Research (NCAOR)
Headland Sada,
Goa-403804,
India.

Reference: 1) NCAOR Eol DOCUMENT No.NCAOR/PV/20 dated 8/Sept/2017
2) Amendments/Revised Eol document dated

Dear Sirs,

We hereby confirm that we have examined the NCAOR Eol document dated 8th September, 2017 and the amended Eol document dated..... .

We hereby confirm the following;

- i) that we agree to all terms and conditions of the Eol document,
- ii) that we will submit necessary MoU (as per the format that shall be provided in RFP) with our collaborating shipyard / designer,
- iii) that our collaborating partner (shipyard/designer) is not offering the services to any other shipyard for this same PRV project of NCAOR, and
- iv) that the experienced manpower requirement as per 4.2.c shall be adhered during the constructions of the vessel.

Yours faithfully,

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(Bidder's Signature)

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