

## **INDIAN NAVY INVITES**

### **EXPRESSION OF INTEREST (EOI) FOR REFURBISHMENT OF STANDBY INDICATOR SYSTEM (ISIS) - MIG 29K /KUB**

1. Indian Navy invites Expression of Interest (EOI) **“For Refurbishment of Standby Indicator System (ISIS)”** from reputed Indian firms based in India having technical and financial capability, infrastructure and experience to execute the project.

2. **Introduction to ISIS.** Integrated Stand-by Indicator System (ISIS) is the stand-by system on aircraft for calculation and display of aircraft Roll, Pitch and Slip Angles, Indicated Air Speed (IAS), Mach Number, Barometric Flight Altitude, Vertical Speed and Magnetic Heading. The same is a flight critical equipment and is the only means of navigation in case of failure of MFD and Head-up-display. Each aircraft is fitted with one ISIS in the cockpit and takes heading reference from the Magnetometer.

#### **Details of Work**

3. **Scope of Work.** The scope of work involves establishment of comprehensive test, repair and refurbishment facilities for Integrated Stand-by Indicator System (ISIS). This should also include facility for disassembly of the unit modules into their respective sub modules/ sub components and carrying out depot level (repair) activities required for repair and refurbishment of ISIS. The broad scope include following:-

(a) Identifying the defect utilising the standard electrical and electronic tests/ fault analysis techniques available in the industry. The work is required to be undertaken by qualified technicians. Support document for qualified technicians may be submitted by the firm. Submission of repair methodology/ repair process undertaken to identify defective component will be required.

(b) Replacement of defective BDS by utilising MIL standard serviceable spares supplied by OEM/ OEM authorised vendor. Further colour photographs/ video recording of components replaced during the repairs may be submitted.

(c) Submission of report regarding details of testing, if any, carried out for combined indicator ISIS, Part NO. 336MFD1-1 in the firm premises. In case such test has been undertaken at firm premises, then details of the equipment utilised for testing and QA clearance/ calibration certificate (if applicable) of the test set may be submitted.

(d) Association of firm's engineers for functional, integration and user acceptance trails at NAY (Goa).

(e) Certificate of Conformity (CoC) issued by BDS supplier to be provided for traceability (Certificate for type and quality of BDS utilised).

(f) Inspection by Naval QA Agency would be undertaken post completion of repairs during User Acceptance trails.

(g) Certificate of origin (if imported spares are used).

(h) Warranty certificates (as applicable).

(j) Inspection clearance will include inspection for transit damage, correctness and completeness of item along with valid documents as per repair order.

(k) View non-availability of test bench, serviceability checks on aircraft (to ascertain the efficacy of repairs) through fitment of 336MFD1-1 on serviceable aircraft and assessment for ten hours of flight operation.

(l) **Warranty** The firm shall give 12 months warranty under the contract from the acceptance of items by **IN**.

4. **Stages and Responsibility.** The stage wise tasks and responsibility for the program is as tabulated below: -

S/N	Task	Navy (IHQ/ DAPP/ NAY(Goa))	R&D Partner (Through Industry)	Industry Partner	Remarks
		Responsibility			
(a)	Project Definition	V			
(b)	EOI, Price discovery, Vendor Mgmt, RFP, SO	V			Including Vendor Meets
(c)	Certification Roadmap			V	In consultation with CEMILAC/ RCMA/ RAQAS (GOA)
(d)	Process & Test facilities		V	V	With Academic & R&D Partners as necessary overseen by NAY(Goa)
(e)	Reviews	V			Collegiate PDR, DR, TRR, PRR, Closure
(f)	Spares and Consumable resourcing			V	For repair / overhaul as per tasking intimated by NAY(Goa)

5. **Place, time and Date of Pre-bid Meeting.** The pre-bid meeting will be in the form of joint evaluation/clarification of proposals submitted by industrial partners with participation of industrial bodies. These meeting will shortlist the eligible proposals which will determine the scope of the Limited Tender Enquiry. The meeting would be held at NAY(Goa) on 10 Aug 24. The response to the subject EoI can be uploaded online on Defence Procurement Portal or can be dispatched through courier or speed post to reach the following address before on 28 Jul 24: -

The Commodore Superintendent,  
Naval Aircraft Yard(Goa),  
Dabolim Airport Road,  
Vasco, Goa 403801.

### **Eligibility Criteria**

6. Only Indigenous firms based in India and possessing experience in professional deployment of technical manpower in projects undertaking design, development, repair, overhaul, reclamation & certification of electronic/ mechanical/ electromechanical/ airframe/ aero engine aggregates, avionics (as applicable) used in aircraft whose proposals have been shortlisted by the proposal review committee would be eligible.

7. The following documents/ evidence are expected to be submitted by interested firms willing to partner with **IN** in their endeavour for '**Self Reliance in Maintenance**':-

(a) **Financial Capacity.** Details of the financial capability of the interested firms in the form of Balance Sheet and ITR of last three financial years including average turnover, certified by a CA.

(b) **Certification.** Details of ISO 9001/ AS 9100/ DGAQA/ Design & Development Agency certification by appropriate agency.

(c) **Registration.** Details of registration status of the firm as per Companies Act including MSME/ NSIC certification, if any.

(d) **Work Experience.** Following will be considered for evaluation of work experience by the firm:-

- (i) Experience of repair/ refurbishment of Avionics items of Russian origin.
- (ii) Experience of working with ADA on LCA/ TEDBF on similar systems/ components
- (iii) Experience in successful deployment of human resource in undertaking indigenous development/ Repair Reclamation tasks with Defence, Govt, PSUs or any other agencies
- (iv) Details of current/ similar projects in hand, their valuation and completion dates.

(e) **Technical Capability.** The firm responding to EoI should have the following pre-qualification and must submit documents to support their eligibility.

- (i) Must possess experience in proven human and machine/ equipment resources deployment and knowledge about aeronautical design, development, repair, overhaul, reclamation & certification of electronic/ mechanical/ electro mechanical/ airframe/ aero engine aggregates, avionics (as applicable).
- (ii) Familiarity with the supply chains for aeronautical quality components and materials, special tools and machinery.
- (iii) Manufacturing and fabrication facility/ outsourcing (indicate plan and extent of outsourcing) as applicable to the project.
- (iv) In-house test facilities / outsourcing (indicate plan and extent of outsourcing) as applicable to the project.

8. The following, specifically while deploying technical manpower, are to be noted:

- (a) The mentioned activities shall be carried out at **IN/** company premises, by the industrial partner.
- (b) Personnel deployed must have basic knowledge of handling life support equipment and accessories and should be aware of safety precautions/ instructions as applicable.
- (c) Health and safety of industrial partner's personnel deployed on any activity would be the responsibility of the industrial partner. Requisite Personnel Protective Equipment (to be provisioned by the industry partner) are to be worn by the personnel working as required.
- (d) The industrial partner needs to indemnify NAY(Goa) / **IN** against any injuries to personnel due to accidents/ incidents caused by human error on the part of the personnel employed for the work by the partner.

9. **Detailed Project Report (DPR).** The DPR will be submitted by all industrial partners in response to EOI comprising of following:-

- (a) Outline features of the proposal.
- (b) Estimated Capital expenditure.
- (c) Roles, responsibilities and expertise details of consortium members, if any.
- (d) Role of foreign technology provider, if any.
- (e) Cost- sharing aspects as applicable.

10. EoI response would be evaluated based on the supporting documents and physical verification of company's capability to execute the project.

11. Clarifications may be sought from NAY(Goa), to address of which is shown below:

The Commodore Superintendent,  
Naval Aircraft Yard(Goa),  
Dabolim Airport Road,  
Vasco, Goa 403801.  
Ph: 0832-2585703

12. The interested firm have to forward the following details to attend the pre- bid meeting: -

- (a) Letter from firm for attending the pre-bid meeting.
- (b) ID proof of representatives/ AADHAR details.
- (c) Residence address along with nearest police station.