

**NHQ/ DIRECTORATE OF AIR PROJECTS AND PLANS (DAPP) INVITES RESPONSE
TO REQUEST FOR INFORMATION (RFI) FOR INDIGENOUS DESIGN &
DEVELOPMENT OF GROUND AUTOMATED TEST SYSTEM (NASK 1-29K) AND
CARRIER BASED AUTOMATED TEST SYSTEM (KSAK 1-29K)**

RFI Ref No. : AP/0797/NASK

Date of Issue: 21 Jan 26

1. Indian Navy invites response to Request for Information (RFI) for “*Indigenous Design and Development of Ground Automated Test System (NASK 1-29K) and Carrier Based Automated Test System (KSAK 1-29K) for MiG 29K/ KUB aircraft*” from reputed Indian firms based in India having technical and financial capability, infrastructure and experience to execute the project.

2. **Brief Description.** NASK 1-29K and KSAK 1-29K, automated test systems are utilised for undertaking various scheduled maintenance task cards on MiG 29K/ KUB aircraft. KSAK 1-29K is required for undertaking maintenance activities on-board aircraft carrier. Broad level activities undertaken by these system are as follows: -

2.1 Testing of all equipment and systems during 125, 250 and 500 hourly scheduled maintenance, including fuel system, air data system, avionics, fly by wire, electrical power generation and distribution system etc.

2.2 Defect investigation during operation and maintenance.

2.3 Testing of armament systems in preparation for weapon loading. This includes system checks post leading of weapons in preparation for combat missions.

2.4 Testing for various modes and functionality/ performance of the Radar and its sub components as well as those of other sensors.

2.5 Testing and investigation of engine parameters using IDK 42 adaptor.

2.6 Generating reports of various checks/ investigation results.

3. **System Composition.** Each NASK 1-29K / KSAK 1-29K is a set of trolleys with computers, laptops, integrated test equipment, output devices, cables, sensors, indicators, power supply units etc. Each set consists of the following trolleys: -

3.1 **NASK 1-1.** The NASK 1-1 is a ground automated facility for testing the aircraft equipment, power plant and associated aircraft systems. It is designed to solve the following tasks:-

3.1.1 Automated test of the technical state of on-board equipment.

3.1.2 Automated test of on-board equipment serviceability in the course of scheduled operations, adjustment and regulation operations and replacement or repair of on-board equipment.

3.1.3 Troubleshooting of faulty on-board equipment by specified algorithms down to structurally-replaceable unit level.

3.1.4 Copying, accumulation of the test results.

3.1.5 Analysis and flight data processing.

3.1.6 Display of the test results and their processing on the display screen in the form of protocol on the printed format.

3.2 **NASK 1-2.** The NASK 1-2 is a ground automated facility for testing the aircraft armament launching and control circuits over the power circuits and on communication channels, avionics start circuits and also the systems, concerned with the power plant with the engine inoperative. The facility is designed to solve the following tasks:-

3.2.1 Automated test of the technical state of on-board equipment.

3.2.2 Automated test of on-board equipment serviceability in the course of scheduled operations, adjustment and regulation operations and replacement or repair of on-board equipment.

3.2.3 Troubleshooting of faulty on-board equipment by specified algorithms down to structurally-replaceable unit level.

3.2.4 Copying of the test results.

3.2.5 Display of the test results and their processing on the display screen in the form of protocol on the printed format.

3.3 **MASK-1.** The MASK-1 is a small-size automated test facility of the aircraft armament launching and control circuits over the power circuits, information and television channels of the MiG-29K/KUB. The MASK-1 facility is built around the pressurized case-container. The facility is designed to solve the following tasks:-

3.3.1 Automated condition-monitoring of aircraft armament.

3.3.2 Automated check of aircraft armament during scheduled maintenance services, after replacement or recovery of aircraft armament.

3.3.3 Automated troubleshooting of faulty on-board equipment according to the specified algorithms beyond-the- structural and plug-in unit fault location.

3.3.4 Display of the test results and their processing on the computer screen in the form of protocol on the printed format.

3.3.5 Copying the test results on the USB Flash drive.

3.4 **SK-1.** The SK-1 specialized container is part of the NASK-1-29K ground automated test system and intended for accommodation of the test equipment and common use instrumentation, which are required for testing the operational status of avionics, aircraft power plant and interfaced systems. It is utilized to perform:-

3.4.1 Scheduled maintenance inspections.

3.4.2 Troubleshooting of structurally plug-in unit.

3.4.3 Adjustment operations after replacement of faulty unit.

3.5 **SK-2.** The SK-2 specialized container is part of the NASK-1-29K ground automated test system and intended for accommodation of the test equipment and the common use instrumentation, which are required for testing the operational status of avionics, power plant and interfaced with it systems, as well as for convenient connection of electric power to them in service. It is utilized to perform:-

3.5.1 Scheduled maintenance inspections.

3.5.2 Troubleshooting of structurally plug-in unit.

3.5.3 Adjustment operations after replacement of faulty unit.

4. **Eligibility Criteria.**

4.1 Only Indian companies/ industries/ firms having requisite expertise and experience in the field of design and development of automated test equipment for aircraft/ aviation applications are to respond to the subject RFI.

4.2 They must have the technical capability, financial capacity, infrastructure, familiarity with Quality Assurance aspects and experience in design & development of automated test equipment. The developed equipment,

will be accepted only after it successfully passes all the acceptance tests and functional trials as necessary.

4.3 The interested firms willing to undertake this design and development activity are required to submit a detailed report (on completion of feasibility study) along with necessary documents/ evidence covering, but not limited to the following:-

4.3.1 **Company Details.**

- 4.3.1.1 Name and registered office address
- 4.3.1.2 Factory/ Work address
- 4.3.1.3 Category of industry – Large scale/ SME/ MSME
- 4.3.1.4 Organisation structure and details of manpower held (Technical – skilled and unskilled and Administrative).

4.3.2 **Financial Capacity.** Details of the financial capability in the form of Balance Sheet and ITR of last three/ five financial years including average turnover, certified by a CA.

4.3.3 **Certification by QA Organisations.**

Name of the Agency	Certification	Applicable from (date and year)	Valid till (date and year)

4.3.4 **Registration.** Details of registration status of the firm as per Companies Act including MSME/ NSIC certification, if any. Copy of the Registration certification issued by any Defence PSU/ IAF/ Army/ DRDO, in case the firm is registered with any of these organisations.

4.3.5 **Work Experience.** Following would be considered towards work experience:-

4.3.5.1 Details of any such/ similar projects undertaken for any Defence PSU/ DRDO/ Army/ IAF or other organisations, in the past.

4.3.5.2 Details of current/ similar projects in hand, their valuation and completion dates.

4.3.6 **Technical Capability.**

4.3.6.1 Details of R&D infrastructure and technical manpower employed in R&D activities.

4.3.6.2 Manufacturing and fabrication facility/ outsourcing (indicate plan & extent of outsourcing) as applicable to the project.

4.3.6.3 In-house test facilities / outsourcing (indicate plan and extent of outsourcing) as applicable to the project.

4.3.7 **Activity Roadmap.** Detailed roadmap, indicating how the firm proposes to develop these equipment including development of Acceptance Test Procedures and QA coverage.

4.3.7.1 It should include recommended stages/ phases of development scheme with priorities, time schedules and roles/ responsibilities.

4.3.7.2 Proposed testing methodology and its stages.

4.3.7.3 Details of standards to be followed for development, manufacture and testing.

4.3.7.4 Since the existing equipment are software embedded/ driven, ability of the firm/ industry to undertake porting/ mirroring of existing software or requirement of developing completely new software should be clearly indicated.

4.3.7.5 In case, the firm is interested in design and development of limited sub-system only viz. NASK 1-1, SK-1 etc, instead of complete system, the same may also be submitted.

4.3.7.6 Any other activity, the firm needs to bring out.

4.3.8 **Timelines.**

4.3.8.1 Estimated timelines for prototype development with milestones.

4.3.8.2 Estimated timelines for production of final product as per **IN** requirement, post successful prototype development.

4.3.9 **Costing.** A non-obligatory Budgetary Quote (BQ), indicating the development cost, prototype cost & final product cost and their basis.

The quote (It is to be noted that this is only a BQ and hence does not imply that an order will be placed).

4.3.10 Any other details that the firm like to put forwards to the feasibility study board.

5. Responses received, will be evaluated based on the supporting documents and if need be, by physical verification of company's capability and expertise.

6. Based on requirement, a meeting may be held for evaluation/ clarification of proposals submitted by industrial partners with participation of industrial bodies. The date and venue of this meeting will be intimated at a later date.

7. **Feasibility Study.** The interested firms may undertake visit to Naval Aircraft Yard (NAY), Goa for feasibility study of these automated test equipment, to ascertain adequacy of available technical documentation and feasibility of porting or mirroring software of these test equipment to indigenously developed automated test equipment. NASK 1-29K and KSAK 1-29K are functionally similar. The firm having capability to undertake indigenous development of NASK 1-29K should be able to develop KSAK 1-29K also. All the technical queries related to development may be clarified during the feasibility study visit to NAY(Goa). Contact details are as follows: -

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

8. For feasibility study purpose, firms are to project visit request to NHQ/ DAPP providing details of representatives (aadhar and contact details) through email (dapp@navy.gov.in) so as to facilitate security clearance for the visit.

9. The response to the subject RFI can be submitted through e-mail or through courier or speed post to reach the following address before **1700 hrs on 23 Mar 26** super scribed " Response to RFI AP/0797/NASK dated 21 Jan 26": -

Captain (Air Projects and Plans)
Directorate of Air Projects and Plans
Naval Headquarters
Room No. 511
'D' Block, Defence Offices Complex
Africa Avenue
New Delhi – 110023
E-mail : dapp@navy.gov.in
Fax : 011-26771388

Tele: 011-26771521/ 1546 Cdr(APP)

10. Clarification, if any, pertaining to this RFI may be sought, through letter, tele fax, e-mail, prior to 23 Mar 26 (details as per para 9 above).

Place : New Delhi

Date : Jan 26