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# REQUEST FOR INFORMATION (RFI) FOR 76 NAVAL UTILITY HELICOPTERS (NUH), SIMULATORS AND ASSOCIATED EQUIPMENT FOR INDIAN NAVY (51) AND INDIAN COAST GUARD (25)

## REQUEST FOR INFORMATION

## REQUEST FOR INFORMATION (RFI) FOR 76 NAVAL UTILITY HELICOPTERS (NUH), SIMULATORS AND ASSOCIATED EQUIPMENT FOR INDIAN NAVY (51) AND INDIAN COAST GUARD (25)

1. **Introduction**. The Ministry of Defence, Government of India, intends to procure 76 Naval Utility Helicopters for maritime SAR & Utility capabilities, HADR and Low Intensity Maritime Operations (LIMO) under **Buy & Make (Indian)** category.

2. This Request for Information (RFI) consists of three parts as indicated below:-

(a) **Part I**. The first part of the RFI incorporates broad operational requirements and features that should be met by the equipment. A few important technical parameters of the proposed equipment are also mentioned.

(b) **Part II**. The second part of the RFI states the methodology of seeking responses. Submission of incomplete response format will render the vendor liable for rejection.

(c) **Part III**. Guidelines / Criteria for Vendor Selection/ Pre-Qualification in Buy & Make (Indian) Cases.

## Part-I

3. **The Intended Use of Helicopter**. The helicopter should be able to perform the following roles by day and night:-

(a) Maritime Search and Rescue.

(b) Casualty Evacuation (CASEVAC) /Medical Evacuation (MEDEVAC).

(c) Communication Duties (Passenger and Cargo Role).

(d) Low Intensity Maritime Operations (LIMO)

(e) Humanitarian Assistance and Disaster Relief (HADR).

(f) Aerial Fire Fighting.

4. **Important Characteristics and Features of Helicopter**. The helicopter should have been in service with a Navy or Marine Service for at least Five (05 Years) in the full configuration as mentioned below. ***(Helicopter / capabilities under D&D and not proven / certified to date would not be considered).***

(a) Max All up Weight **Not Exceeding 5,500 Kgs**.

(b) **Twin-engine.**

(c) Have an articulated rotor system.

(d) **Wheeled landing gear.**

(e) **Blade fold capability for stowage in hangars onboard ships.**

5. The helicopter should be capable of operating from ships and ashore in all weather conditions by day and night. Towards LIMO capability, sensors and weapons (12.7 mm HMG and/or 7.62 mm MMG) to meet the envisaged role would be required to be integrated with the helicopter by the vendor.

6. **Conditions for Solicitation of Offers**. Vendors should confirm that the following conditions are acceptable: -

(a) The solicitation of offers will be as per 'Single Stage-Two Bid System'. It would imply that a 'Request for Proposal' (RFP) would be issued soliciting Technical and Commercial offers together, but in two separate sealed envelopes. The Commercial Offer needs to be 'Firm and Fixed' with a validity of at least 18 months from the date of submission of the offers.

(b) The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to verify compliance with the RFP.

(c) The helicopter and equipment of all TEC cleared vendors would be put through a FET in India on a 'No Cost No Commitment' basis. A Staff Evaluation would be carried out by Naval Headquarters (NHQ) to

analyse the result of Field Evaluation and shortlist the equipment for introduction into service.

(d) Amongst the vendors cleared by Staff Evaluation, a Contract Negotiations Committee (CNC) would decide the lowest cost bidder (L1) and conclude the appropriate contract.

(e) Vendor would be bound to provide product support for time period specified in the RFP, which includes spares and maintenance tools/jigs/fixtures for field and component level repairs.

(f) The vendor would be required to accept the general conditions of contract given in the Standard Contract Document at Chapter VI of DAP 2020.

(g) **Integrity Pact**. An Integrity Pact (IP) is a mandatory requirement in the instant case (Annexure I to Appendix 'O' of Schedule I of DAP 20).

(j) **Earnest Money Deposit**. An Earnest Money Deposit as bid security is a mandatory requirement and should be provided i.a.w DAP 20 amendment as follows:-

| **Estimated Cost of Procurement Scheme (₹ Crore)** | | **EMD Amount** |
|---|---|---|
| Above (not including) | To (including) | |
| - | ₹ 100 | Nil |
| ₹ 100 | ₹ 150 | ₹ 30 Lakh |
| ₹ 150 | ₹ 300 | ₹ 70 Lakh |
| ₹ 300 | ₹ 1000 | ₹ 02 crore |
| ₹ 1000 | ₹ 2000 | ₹ 05 crore |
| ₹ 2000 | ₹ 3000 | ₹ 10 crore |
| ₹ 3000 | ₹ 5000 | ₹ 15 crore |
| ₹ 5000 | - | ₹ 25 crore |

(j) **Performance - cum - Warranty Bond**. Performance-cum-Warranty Bond both equal to 5% value of the contract inclusive of taxes and duties is required to be submitted after signing of contract.

(k) **Transfer of Technology (ToT)**. GOI is desirous of license production of equipment after acquiring ToT in the case.

## Part-II

7. **Procedure for Response**.

(a) Procedure for response is outlined at **Appendix 'A'**. Vendors must fill the form of response as given at **Appendix 'B'**. Apart from filling details about company, details about the exact product meeting generic technical specifications should also be carefully filled at **Appendix 'C'**. Additional literature on the product can also be attached with the form.

(b) The filled form should be dispatched at undermentioned address:-

Commodore Aircraft Acquisition
Naval Headquarters / Directorate of Aircraft Acquisition
Room No. 405, Block D
Defence Offices Complex, Africa Avenue
New Delhi - 110 023
Tel: +91-11-26771342
Fax No.: +91-11- 26771383
E-mail: daa@navy.gov.in

(c) Last date of submission of the RFI **should not be later than EIGHT weeks** from date of issuance of RFI ie **17 Oct 25**. The vendors short listed for issue of RFP would be intimated.

8. The Government of India invites responses to this request only from Original Equipment Manufacturers (OEM)/ Authorised vendors/ Government Sponsored Export Agencies (applicable in the case of countries where domestic laws do not permit direct export by OEMs). The end user of the equipment is Indian Navy (***IN***) and Indian Coast Guard (**ICG**).

9. This RFI is being issued with no financial commitment and the Ministry of Defence reserves the right to change or vary any part thereof at any stage. The Government of India also reserves the right to withdraw it should it be so necessary at any stage. The acquisition process would be carried out under the provisions of DAP 2020.

## Part - III

10. **Vendor Selection Criterion**. Vendors must fill the Vendor Information Proforma at **Appendix 'B'** so as to enable Vendor Analysis prior issue of RFP. The guidelines for Framing Criteria for Vendor Selection/ Pre-Qualification in Buy & Make (Indian) category case is placed at **Appendix 'D'**.

**Appendix 'A'**
(Refers to para 7(a) of RFI)

## REQUEST FOR INFORMATION: PROCEDURE FOR RESPONSE

## REQUEST FOR INFORMATION (RFI) FOR 76 NAVAL UTILITY HELICOPTERS (NUH), SIMULATORS AND ASSOCIATED EQUIPMENT FOR INDIAN NAVY (51) AND INDIAN COAST GUARD (25)

1. The Ministry of Defence, Government of India is planning to progress a case for procurement of **76 Naval Utility Helicopters (NUH)** which includes 51 Helicopters for Indian Navy & 25 Helicopters for Indian Coast Guard. With a view to identify probable vendors who can undertake the said project, OEMs/ Authorised Vendors are requested to forward information on the product which they can offer. The vendors are required to furnish details as per Proforma at **Appendix 'B'.** The parameters/ broad specifications of the item are mentioned in the questionnaire attached as per **Appendix 'C'**.

2. Apart from the information as per the Appendices, the vendors may also forward technical details/product brochures/literature etc. pertaining to the item in question.

3. The required information/ details may please be forwarded at the following address not later than **17 Oct 25**:-

Commodore Aircraft Acquisition
Naval Headquarters
Directorate of Aircraft Acquisition
Room No. 405, Block D
Defence Offices Complex, Africa Avenue
New Delhi - 110 023

Tel: +91-11-26771342

Fax No.: +91-11- 26771383

E-mail: daa@navy.gov.in

POC: Cdr (AA) - NUH

**Appendix 'B'**
(Refers to para 7(a) of RFI)

## VENDOR INFORMATION PROFORMA

1. **Name of the Vendor/Company/Firm.**

(Company profile including share holding pattern, in brief, to be attached. In the eventuality of the firm emerging as L1, contract will be concluded in the name and address of the firm, as indicated here). Vendors are to submit an undertaking that any subsequent proposal for change in name of firm or address, will be intimated to NHQ at the first available opportunity and supporting documents will be furnished within five working days of approval of competent authority.

2. **Type (Tick the relevant category).**

| | |
|---|---|
| Original Equipment Manufacturer (OEM) | Yes/No |
| Authorised Vendor of foreign Firm | Yes/No (attach details, if yes) |
| Others (give specific details) | |

3. **Contact Details.**

Postal Address: _____
_____

City: _____ State : _____
Pin Code : _____ Tele : _____
Fax : _____ URL/Website:_____
Email :_____

4. **Local Branch/Liaison Office / Agent in Delhi (if any).**

Name & Address: _____
Pin code: _____ Tel: _____ Fax: _____
Email :_____

5. **Financial Details.** Category of Industry (Large/Medium/Small Scale)

6. **Certification by Quality Assurance Organisation.**

| Name of Agency | Certification | Applicable from (Date & Year) | Valid till (Date & Year) |
|---|---|---|---|
| | | | |
| | | | |

7. **Details of Registration.**

| Agency | Registration No. | Validity (Date) | Equipment |
|---|---|---|---|
| GeM | | | |
| DGQA/DGAQA/DGNAI | | | |
| OFB | | | |
| DRDO | | | |
| Any other Government Agency | | | |

8. **Membership of FICCI/ASSOCHAM/CII or other Industrial Associations.**

Name of Organisation:_____

Membership Number: _____

9. **Equipment/Product Profile (to be submitted for each product separately)**

(a) Name of Product:

(IDDM capability be indicated against the product)
(Should be given category wise for eg, all products under night vision devices to be mentioned together)

(b) Description (attach technical literature):

(c) Whether OEM or Integrator:

(d) Name and address of foreign collaborator (if any):

(e) Industrial Licence Number:

(f) Indigenous component of the product:

(i) Overall IC (in percentage) :

(ii) IC for material/ components/ software manufactured in India (in percentage):

(g) Status (in service /design & development stage):

(h) Production capacity per annum:

(j) Countries/agencies where equipment supplied earlier (give details of quantity supplied):

(k) Estimated price of the equipment.

(l) Indigenously produced subsystems, Line Repair Units, software and critical spares of the product: _____

(m) Devices / Line Repair Units for which Input / Output Protocols are indigenously available for enabling replacement by indigenous equivalents or interfacing with equipment of own choice :

(n) Capability for carrying out Comprehensive Maintenance, Repair and Overhaul, calibration and obsolescence management of the equipment / platform / system along with associated jigs, fixtures and test setups, during the designed service life of the equipment within India.

10. Alternatives for meeting the objectives of the equipment set forth in the RFI.

11. Any other relevant information.

{**Compliance with DAP 2020**. The vendor is to indicate whether they would be able to comply with all provisions of DAP 2020 or not. If not, para/clause of DAP 20 which would not be agreed to is to be mentioned, with reasons (to enable SHQ to process seeking of reasonable waivers)}.

12. **Declaration.**

(a) It is certified that the above information is true and any changes will be intimated at the earliest.

(b) It is certified that in the past that _____(name of the firm) has never been banned/ debarred for doing business dealings with MoD/ GoI/ any other Government Organisation and that there is no enquiry going on by CBI/ ED/ any other Government Agency against the firm.

*(Authorised Signatory)*

## REQUEST FOR INFORMATION (RFI) FOR 76 NAVAL UTILITY HELICOPTERS (NUH), SIMULATORS AND ASSOCIATED EQUIPMENT FOR INDIAN NAVY (51) AND INDIAN COAST GUARD (25)

1. Instructions for furnishing information:-

   (a) The vendor response should be in **ENGLISH** only.

   (b) The following units should be used:-

   | | | | |
   |---|---|---|---|
   | (i) | Weight | - | Kilograms / Pounds |
   | (ii) | Altitude | - | Feet |
   | (iii) | Temperature | - | °C |
   | (iv) | Distance | - | Nautical Miles |
   | (v) | Pressure | - | Hecta Pascal |
   | (vi) | Length | - | Meters |

   (c) Low Hover (wherever indicated) - 50 Ft AMSL

   (d) **Indian Reference Atmosphere**. Performance requirements must be met in Indian Reference Atmosphere (IRA) conditions. The relevant parameters of IRA are as under:-

| | | |
|---|---|---|
| (i) | Sea level Mean Temperature (°C) | ISA+15°C |
| (ii) | Reference Temperature for Takeoff and landing(°C) | ISA+20°C |
| (iii) | Reference Temp for performance less (ii) above(°C) | ISA+15°C |
| (iv) | Lapse Rate | 6.5°C/Km |
| (v) | Mean Sea Level Pressure(hPa) | 1005 hPa |
| (vi) | Relative Humidity | 95% |

(e) **Beaufort Scale & Sea State**

| Beaufort number | Wind Description | Wind Speed | Wave Height |
|---|---|---|---|
| 0 | Calm | 0 knot | 0 feet |
| 1 | Light Air | 1-3 kts | < ½ feet |
| 2 | Light breeze | 4-6 kts | ½ ft (max 1 ft) |
| 3 | Gentle breeze | 7-10 kts | 2 feet (max 3 ft) |
| 4 | Moderate breeze | 11-16 kts | 3 feet (max 5 ft) |
| 5 | Fresh breeze | 17-21 kts | 6 feet (max 8 ft) |
| 6 | Strong breeze | 22-27 kts | 9 feet (max 12 ft) |
| 7 | Near Gale | 28-33 kts | 13 feet (max 19 ft) |

(f) The response should be provided in HARD and SOFT copy in MS EXCEL Format.

(g) Make and model of all equipment to be fitted for the project in the helicopter should be furnished in response along with the information.

(h) **Environmental Conditions**. The Environmental conditions (operating and storage) of the helicopter as well as individual equipment fit are required to be compatible as per MIL STD 810 G or above applicable military standards. EMI/EMC standards for individual equipment would be 461 G and helicopter level 464 C compliance.

(j) Please provide specific responses/ compliance details.

2. **Definitions**

(a) **Basic Helicopter**. Helicopter without any mission equipment, sensors and operator stations.

(b) **Green Helicopter**. Basic Helicopter equipped with mission sensors and equipment (Lightweight Surveillance Radar with Weather Mode, Electro-Optical/ Infra-red Device, Rescue Hoist, Automatic Identification System (AIS), Air Conditioning Equipment, Indigenous SDR with Speech Secrecy Equipment, IFF Transponder, ADS-B (IN/OUT) Transponder, Emergency Floatation Gear and crew Life Rafts.

**Appendix 'C'**
(Refers to Para 7(a) of RFI)

## IMPORTANT TECHNICAL, OPERATIONAL AND GENERAL PARAMETERS FOR WHICH INFORMATION IS REQUIRED

1. The parameters/ specifications mentioned in succeeding paragraphs are requested in the response to our Request for Information. **Vendor to Specify and provide maximum details possible.** *The response should be provided in HARD and SOFT copy in MS EXCEL Format.*

2. **Commercial Information.**

| Ser | Information Required | Response |
|---|---|---|
| (a) | Time required for submission of response to RFP | |
| (b) | Feasible Delivery Schedule after signing of contract (provide details for Buy & Make Components) | |

3. **Stipulated Conditions for Use.**

(a) **Tropicalisation.**

(i) Are the helicopter and its system tropicalised for marine operations? Vendor to provide the cleared operating temperature range, relative humidity and any other relevant parameters.

(ii) Are the associated Test Tools and equipment tropicalised and ruggedised? Vendor to provide the cleared operating temperature range and relative humidity.

(b) **EMI/EMC Compliance and Standards.** Does the helicopter and its system /equipment fit comply with the Environmental conditions (operating and storage) as per MIL STD 810 G or above military standards? Are the EMI/EMC standards for individual equipment 461 G and helicopter level 464 C compliant?

(c) **General Compliance and Standards.** Provide a detailed list of the specific EMI/EMC standards (MIL-STD-461G/H, DEF STAN 59-411 etc.)

that the helicopter is designed, tested and certified to meet for shipborne operations?

(d) What level of EMI/EMC compliance is guaranteed across the full operational envelope of the helicopter, including varying power configurations, environmental conditions (temperature, humidity, salt fog etc.) and flight profiles relevant to shipborne operations?

(e) What specific design features (shielding effectiveness of the airframe and equipment enclosures, grounding and bonding techniques, filtering of power and signal lines) have been incorporated to mitigate shipborne EMI?

(f) **Electro - Static Discharge**. Provide data on the helicopter's Electro - Static Discharge (ESD) sensitivity, particularly in the context of shipborne refueling and maintenance operations? What ESD protection measures are implemented as part of the aircraft design?

(g) **EMI/EMC Compliance Test**. Provide EMI/EMC test reports for critical avionics, mission systems (sensors, communication equipment and weapon control systems) and electrical power systems that will interface with shipborne systems?

(h) How have potential EMI/EMC issues related to the helicopter's rotor blades (turboelectric charging) been addressed? Has it been tested for shipborne environments?

(j) Does the helicopter operate on Predictive Maintenance Philosophy?

**General and Technical Parameters Helicopter and Associated Equipment**.

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| 4. | Physical Parameters and Features | (a) Has the helicopter been in service with a Navy or Marine Corps or Coast Guard for at least **FIVE (05) Years** in the complete configuration? Please provide details of the Navy / Marine Corps / Coast Guard that the helicopter has been in service with the roles undertaken. |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (b) Is the helicopter (Green or Basic) or its variant thereof in operations with Navy / Marine Corps / Coast Guard of any country and operating from ships for extended durations? Specify details.<br><br>(c) Does the helicopter have wheeled landing gear? What is the landing rate that it can withstand on a frigate sized ship, up to Sea State 5, without damage to landing gear and deck surface?<br><br>(d) Does the helicopter comply with FAR part 29 (Transport Category Helicopters) of FAA, USA or JAR 29 of the EASA or military specifications of the country of manufacture?<br><br>(e) Is the helicopter certified to operate by day and night for the entire capability requirement?<br><br>(f) Is the helicopter cleared to operate in Visual and Instrument Metrological Conditions (IMC)? Please specify the IMC conditions cleared.<br><br>(g) Does the helicopter have fully articulated Rotor Blades? Indicate type of Rotor Blades.<br><br>(h) What is the configuration of the rotor system / column viz single, tandem or coaxial?<br><br>(j) Does the Pitot tube extend beyond the overall length of the helicopter as measured from the nose to Tail Plane or Tail Rotor, which ever extends more?<br><br>(k) Does the helicopter have corrosion resistant airframe design ideally suited for operations in humid and highly corrosive sea environmental conditions? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (l) Can the helicopter operate from ships at sea without hangarage facility for protracted durations without special servicing / checks or equipment? Please provide number of days the helicopter can be maintained on a ship without hangarage.<br><br>(m) How many blades are there in the main and tail rotor?<br><br>(n) What are the External Dimensions of the helicopter? Provide details with blades spread and folded?<br><br>(p) What are the size of the cabin access doors? Are they fixed or removable?<br><br>(q) Does the helicopter have a clam shell door at the rear? If yes, is it with or without ramp?<br><br>(r) What are the Internal Dimensions of the helicopter? What is the max permitted loading of the floor board?<br><br>(s) What is the category of the helicopter in terms of weight and operations?<br><br>(t) What are the dimensions of blades and what are the rotor disc areas?<br><br>(u) Are there any rotor guards and stabilizers provided?<br><br>(v) What is the area required for helicopter operations ashore? |
| 5. | Ship-borne Operations | (a) What is the minimum deck size required for helicopter operations? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (b) What are limits of sea state, roll, pitch, yaw, upslope limits etc. to which the helicopter can operate?<br><br>(c) What are the provisions of helicopter tie down/ lashing points to ensure lashed stability of the helicopter when tethered to the deck?<br><br>(d) What are the pitch and roll limits for helicopter lashed on deck?<br><br>(e) What is the procedure for lashing the helicopter on deck?<br><br>(f) Is the helicopter capable of folding blades and what type of blade folding system is available on the helicopter?<br><br>(g) How much time does it take for blade folding and how many men are required to participate in the blade folding process?<br><br>(h) Is there any restriction on the ships manoeuvre at any time when spreading / folding blades, engaging, dis-engaging rotors or when the rotors are turning?<br><br>(j) Are there any special tools, kit or handling equipment required for blade fold & stowage?<br><br>(k) What is the size of helicopter on effecting blade fold for stowage?<br><br>(l) Is there any special mechanism, tool, equipment required to manoeuvre the helicopter on deck and for stowage?<br><br>(m) Can the helicopter be modified to traverse on deck with a Rail Less Traversing System? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (n) Is the helicopter capable of being integrated with user nominated Helicopter harness and traversing system equivalent to ASIST for launch / recovery and traversing in / out of the hangar?<br><br>(p) Does power receptacle of the helicopter for external starting supply conform to the undermentioned? If not, please indicate variation and feasibility to conform to the undermentioned.<br><br>(i) Standard NATO 6 Type AC Plug<br><br>**And / or**<br><br>(ii) Standard NATO 3 Type DC Plug<br><br>(q) Would the helicopter conform to the following external supply available on ships:-<br><br>(i) 200V 3 Phase (Phase diff $120^0 \pm 2^0$) 4 Wire 400Hz ($\pm$ 0.1 Hz) Max 289A per Phase with power factor 0.8 lagging to 1<br><br>(ii) AC Voltage - 113~118 (line to Neutral) 200~208 VAC (line to line)<br><br>(iii) 20KW ($\pm$ 0.8%) 28.5VDC / 750A continuous 2000A Peak<br><br>(r) What is the external starting power supply (AC & DC) requirements for the helicopter? Is there a provision for internal start in the helicopter? Please provide complete details of the external power supply (AC & DC) and number of internal starts. |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (s) What are the limitations in manoeuvring by the ship while helicopter is lashed on deck/ landing/ recovery/ rotor engaged? |
| 6. | Features for Various Roles Envisaged and Optional Equipment | (a) What optional/ role equipment will be fitted in different variants? Explain individually for each role?<br><br>(b) Optional equipment for realization of roles other than envisaged also be indicated as additional variants.<br><br>(c) Can the Helicopter be integrated with an indigenously developed Auto Homing & Auto Hover (AHAH) system?<br><br>(d) Is / Can the Helicopter be provisioned with a data / video downlink system for real-time streaming of EO/IR and radar picture to the ship?<br><br>(e) Can the helicopter be equipped with a removable payload of loud hailer and search light? |
| 7. | Power Plant | (a) Does the helicopter have two engines?<br><br>(b) What is the type of engine fitted on the helicopter?<br><br>(c) Does the engine have redundant dual channel, cross talking electronic control system / FADEC?<br><br>(d) Do the engine air inlet(s) have particle separator? Is the system integral to the engine or 'add on' type and easy to remove and install?<br><br>(e) What type of fuel is required to operate the engine? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (f) What are the restrictions imposed, if any, with aviation cleared turbine fuels?<br><br>(g) What is the time taken from engine starting to take-off?<br><br>(h) Does the helicopter have 'contingency' or such like rating? Provide the details regarding indications, time limits or any other parametric limitation that exists and maintenance activity that needs to be undertaken post use of 'contingency'.<br><br>(j) Is the engine capable of air start (relight during flight) and up to what altitude?<br><br>(k) What is the electrical power generation capability? Can it be enhanced for carriage of additional payloads?<br><br>(l) What is the power required to start the helicopter and equipment for ground servicing? |
| 8. | Gearbox | Is the gearbox capable to run dry? If yes, what is the time it can run dry? Vendor to indicate details and the rating for this operation in dry condition. |
| 9. | Airframe | (a) What is the radar cross-section and IR signature? What features have been provided to reduce these signatures?<br><br>(b) Is the helicopter capable of operations in extreme saline conditions without regular aircraft and compressor wash, both at sea and ashore?<br><br>(c) What are the vibration levels of Airframe? What are features provided to achieve lower vibration levels? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (d) Is the airframe water ingress proof? |
| 10. | Cockpit and Cabin | (a) What is the type of cockpit and display system?<br><br>(b) Is there a provision of glass cockpit and MFCD system?<br><br>(c) What are the instruments available in emergency modes?<br><br>(d) Which equipment/instrument provide redundancy features in cockpit?<br><br>(e) What is the type of seats for crew/ passengers and patients?<br><br>(f) Is there air-conditioning available in the helicopter?<br><br>(g) What is the noise level and vibration level in the cockpit?<br><br>(h) Is the helicopter cockpit instrumentation and lighting Night Vision Device compatible to enhance operating envelope?<br><br>(j) Does the helicopter have any fault detection and isolation system including for Engine Fire Fighting System?<br><br>(k) What integration is available with crew helmets other than communication and intercom system?<br><br>(l) Is the helicopter provisioned with a wireless inter communication system to facilitate the pilots to interact seamlessly with the maintenance crew or a free diver in water, capable of hands free operations? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (m) What are the features for optimal ergonomics in the cockpit?<br><br>(n) Does the helicopter have a helmet mounted display system?<br><br>(o) Does the avionics have systems such as TAWS with DTED maps and synthetic vision system?<br><br>(p) Does the rear cabin / cargo bay have cargo lashing grid / facility?<br><br>(q) Are there intercom boxes provided for passengers other than crew?<br><br>(r) Is there a provision in the rear cabin for fitment of stretchers and VIP seats? |
| 11. | Flight Controls | (a) What is the Flight Control system available and level of redundancy?<br><br>(b) In case of failure, is reversion to standby system/manual mode possible?<br><br>(c) Is the auto pilot available for flying the helicopter? Is the helicopter controllable if trim/auto pilot fails?<br><br>(d) Does the helicopter have Automatic Flight Control System (AFCS)?<br><br>(e) What class of performance is the AFCS capable of? Does the AFCS have stabilisation augmentation system on Auto pilot or Flight Direction? |
| 12. | Helicopter Systems | (a) Provide system description and limitations of Power plant, Fuel system, Flight controls, Transmission system, Undercarriage system, Rotor blades and blade fold system, Hydraulic |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | system, Pneumatic system, safety and firefighting system, Electrical System and any other system that needs to be incorporated?<br><br>(b) What is the facility for flight data recording? Is the FDR fixed of self-deployable?<br><br>(c) Is a Cockpit Voice Recorder and Cargo Video Recorder provisioned? If not, can it be provisioned?<br><br>(d) What are the limitations on the above mentioned helicopter systems supporting operations of the role equipment?<br><br>(e) Is the helicopter equipped with a Deployable Emergency Locator Transponder (DELT) & Sonar Locator Beacon (SLB)? Does it deploy automatically? Is it integrated with the FDR? |
| 13. | Other Equipment | (a) Is the helicopter provisioned with Health and Usage Monitoring Systems (HUMS) Transponder, Combined Interrogator Transponder (CIT) and Interrogator, ADS-B (IN/OUT), TCAS and Electro Optical Device, Night Vision Devices and Helmet Mounted Display System (HMDS) along with integration of helmets?<br><br>(b) What are the technical and parametric information, including weight penalty of the equipment mentioned above?<br><br>(c) What are the various HUMS fitted in the helicopter? How does the HUMS support Predictive Maintenance Philosophy? How many Years & Hours has the lead aircraft of the series flown in maritime environment with HUMS? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| 14. | Landing Gear | (a) Does the helicopter have a proven wheeled landing gear capable of withstanding landing rate at 400 ft/ min or more on a frigate sized ship?<br><br>(b) What is the maximum sea state to which the helicopter can operate without damage to the gear and deck surface?<br><br>(c) Does the helicopter have arrangements for securing to a Traversing Gear for movement of helicopter on small deck? |
| 15. | Deck Lock System / Helicopter Harnessing & Traversing System | (a) Is the helicopter provisioned with a Helicopter harness and traversing system for launch / recovery and traversing in / out of the hangar?<br><br>(b) Is the helicopter provisioned with a Deck Lock System?<br><br>(c) Is the helicopter capable of being integrated with user nominated Helicopter harness and traversing system equivalent to ASIST for launch / recovery and traversing in / out of the hangar? |
| 16. | Manoeuvring Envelope and Optimisation for Maritime Operations | (a) What is the service ceiling, cruise altitude, transit speed, patrol speed, etc. and any other parameter that limits manoeuvring?<br><br>(b) Is the engine and gearbox of helicopter more efficient at sea level or equally efficient for high altitude operations?<br><br>(c) Is the helicopter optimised for maritime operations? What are the features and procedures that have been adopted for the same?<br><br>(d) Which Aerospace Design Standards (ADS) 33 roles / Manoeuvre does the helicopter meet? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| 17. | Environmental Envelop for Operations | What is the environmental envelope (operating temperature and relative humidity & salinity of atmosphere) within which the helicopter operations is permitted (inclusive of IRA Conditions)? |
| 18. | Operational Range and Endurance | (a) What is the range and endurance of helicopter under conditions of Indian Reference Atmosphere (IRA) in various roles envisaged for the helicopter from ship and shore? Provide the information in tabulated format.<br><br>(b) What is the Max, Range and Endurance speed of the helicopter?<br><br>(c) What is the maximum passenger carrying capacity with full fuel?<br><br>(d) What is the max internal load carrying capacity of helicopter?<br><br>(e) What is the Radius of Action of helicopter with various under-slung load & 20 min fuel reserve?<br><br>(f) Provide detailed Range and Endurance Tables in various conditions of loading and variants, role wise (with 20 min fuel reserve).<br><br>(g) Is the Helicopter provisioned with NATO Pressure and gravity fueling point?<br><br>(h) Is the helicopter capable of Hot Refueling without any restrictions?<br><br>(j) What is the run time with hot refueling of minimum three endurance missions (four endurance preferred)?<br><br>(k) Is the helicopter provisioned with capability to undertake fuel jettison? |

<table>
<tr><th>Ser</th><th>Parameter/ Specification</th><th>Queries</th></tr>
<tr><td></td><td></td><td>(l) Is the helicopter cleared for Helicopter In-Flight Refueling (HIFR)? Please provide limitations of HIFR (if any).</td></tr>
<tr><td>19.</td><td>Surveillance and Targeting capability, Radar and EO/IR</td><td>(a) Is the helicopter provisioned with an integrated light weight Surveillance Radar with Weather mode (colour display) (interfaced with user selectable MFD) or the glass cockpit system? If not what type of radar is provisioned (if any). Please provide complete technical details of the Radar.<br><br>(b) What capability of detecting/ classifying and tracking of surface targets is envisaged by the Radar with surface surveillance mode?<br><br>(c) What would be the ECM/ ECCM features, Azimuth coverage, Blind arc, Freq band, Vertical beam width etc of radar?<br><br>(d) Would the radar system have Beacon/ SAR modes? What other modes of the Radar would be available for exploitation?<br><br>(e) Would the radar system have the ability to send the selected target data to any other system if fitted?<br><br>(f) What would be detection ranges of surface targets for the radar? Provide the data as per table below:-
<table>
<tr><th>Target RCS (Type)</th><th>Altitude (Feet)</th><th>Detection/ Classification Range (Nm)</th></tr>
<tr><td>10m$^2$ (Small Target)</td><td>3000<br>1000</td><td></td></tr>
<tr><td>100m$^2$ (Patrol Boat)</td><td>3000<br>1000</td><td></td></tr>
<tr><td>1000m$^2$ (Frigate)</td><td>3000<br>1000</td><td></td></tr>
</table>
</td></tr>
</table>

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (g) Can a strap on EO/IR equipment be installed and targeting parameter be made available to weapon control system (if fitted)? What is its weight penalty and where it can be installed?<br><br>(h) Please provide the following data wrt the EO/IR, if provisioned:<br><br>(i) Field of View (IR / Colour CCD / LLTV / SW IR).<br><br>(ii) Does it have a laser Designator & Laser range finder?<br><br>(iii) Min range to detect a Small, Intermediate and large target at flight altitude of 5000ft, target contrast 30% ambient temperature 25°C and RH 80%.<br><br>(iv) How is the EO/IR Controlled?<br><br>(v) Is it capable of being connected to radar, DVR, MFD and GPS?<br><br>(vi) Is it capable of geo-pointing & geo-location/ ranging facilities?<br><br>(vii) Weight / Azimuth of Ops / Max & Min Elevation.<br><br>(j) Can AIS be provisioned with transmission & reception mode integrated with the Radar? |
| 20. | Avionics | (a) What are the various avionics fitted on the helicopter? Provide description in terms of |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | accuracy, frequency range, weight and relevant details of each equipment?<br><br>(b) What are the Flight Management System, and landing systems available onboard?<br><br>(c) What is the primary source of navigation available to the helicopter? If GPS, what are the redundancy available in the event of GPS degradation, Spoofing or Denial? |
| 21. | Communications | (a) Is the helicopter capable of being fitted with a Buyer Furnished Software Defined Radio (SDR), UHF SATCOM? How many systems can be fitted?<br><br>(b) Does the helicopter have communication sets with Maritime Mobile Band (MMB) capability?<br><br>(c) Is the helicopter capable of being fitted with a Buyer Furnished Data Link system integration facility?<br><br>(d) What is the homing system provided to Search and Locate SAR Transponder/ Personal Beacons, Emergency Location Transmitters and Transponders?<br><br>(e) What is the redundancy for V/UHF communication?<br><br>(f) Are there any spare V/UHF antennae fitted other than being used for V/UHF communications?<br><br>(g) Is the helicopter capable of being fitted with a Buyer Furnished Mobile Satellite System (MSS)? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| 22. | Self-Protection Suite | Is the helicopter capable of being installed with Self Protection Suite? Provide following for Self Protection Suite (if fitted):-<br><br>(a) Frequency band coverage of the sensors for detection of radar, IR and any other EM radiations.<br><br>(b) Receiver sensitivities.<br><br>(c) Azimuth and elevation coverage.<br><br>(d) Detection accuracy.<br><br>(e) Type of threats that can be detected / displayed and acted upon (like radars, missiles, MANPADS, RPG).<br><br>(f) What information will be presented and recorded and how?<br><br>(g) What are the Tools, data and facilities available to program the system? |
| 23. | Rescue Hoist / Winch | (a) What is the type of rescue winch fitted on the helicopter and what is its method of operation?<br><br>(b) What is the max and usable Cable length of the rescue hoist proposed for the helicopter?<br><br>(c) How many numbers of lifts it can undertake?<br><br>(d) What is max weight capacity of rescue winch?<br><br>(e) What are safety features available? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (f) What testing rigs and procedures are proposed for the winch?<br><br>(g) What type of stretcher/basket for lifting people / equipment from sea or land is compatible with the rescue hoist? Can it be provided as a standard fit of the helicopter? |
| 24. | Cargo Carriage | (a) What would be the type of cargo hoist provided on the helicopter?<br><br>(b) What would be the maximum under-slung cargo carrying capacity?<br><br>(c) Provide details of operation and limitations including range and endurance of helicopter with max cargo weight?<br><br>(d) What safety features are available?<br><br>(e) Indicate details of cargo carrying nets/equipment.<br><br>(f) Would the helicopter be capable of carrying an Aerial Fire Fighting Equipment (AFFE)? If yes, what is the capacity of AFFE that can be integrated? Can a Buyer furnished AFFE be integrated to the helicopter?<br><br>(g) Would the helicopter be capable of carrying a Dispersant Spray system of 1000 Kgs under slung for pollution response? |
| 25. | Slithering System | (a) What is the type of slithering system existing with helicopter?<br><br>(b) What would be the maximum weight and procedure for slithering ops from helicopter?<br><br>(c) Is the helicopter capable of undertaking Short Team Insertion and Extraction (STIE) ops? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| 26. | Survival | (a) Is the helicopter capable of safely landing and float on water from low hover One Engine Inoperative (OEI) condition for sufficient time to enable subsequent safe crew exit?<br><br>(b) What is the provision for operation of Emergency Floatation Gear (EFG)? What type of gear is being provided (automatic or manual)? What are the limits of the EFG in various sea states?<br><br>(c) What are the provisions for crashworthiness of helicopter and what is the egress methodology?<br><br>(d) Is the helicopter capable of a single engine water take off post an emergency water landing? |
| 27. | Survival and Safety Equipment | What are the survival equipment for crew and troops? Provide description and technical information. |
| 28. | Armament | (a) What is the weapon package available for the helicopter for LIMO role?<br><br>(b) Does the Helicopter have the provision to carry external armaments on weapon pylons / weapon carrier beams? If not, can it be provisioned and what would be the time & cost implications for fitment and certification? Also, indicate type of armament with brief details of numbers, weight penalties and radius of action in different armament configuration.<br><br>(c) Can the helicopter be fitted with cabin guns and operated by the Pilot/Aircrew Diver from the helicopter?<br><br>(d) Does the helicopter have Armor Protection capability against 12.7 mm HMG / 7.62 mm MMG? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (e) Does the helicopter have Weapon Management System?<br><br>(f) What is the HUD / HMDS based sighting system on helicopter? Does it also have a standby fixed sight?<br><br>(g) Can the helicopter be fitted with Sniper Support kit? Provide details.<br><br>(j) What effort and time is required for changing/equipping the helicopter to a specific armament variant?<br><br>(k) Provide weapon integration and carriage concept in detail. |
| 29. | Maximum All Up Weight and Equipment Weights | (a) What is the Max Endurance of the helicopter in various AUW conditions? Provide tabulated data for Fuel consumption wrt AUW, Fuel, Range and endurance.<br><br>(b) What are the variants of the helicopter and what roles can be combined within given max All Up Weight that would meet maximum Range and Endurance criteria? (Tabulated data be also provided).<br><br>(c) Provide the data in table form about the basic weight of helicopter, all role equipment (individual weight of each system/ equipment such as Radar, EO/IR, Self-Protection Suite, Standard fit of Instruments, crew, fuel carried, payload capacity available, crew & additional equipment (for role realization).<br><br>(d) What will be the weight of fuel and internal payload carried to fulfill the role? Tabulated role wise data be also provided. |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| 30. | Certification. | (a) Is the helicopter certified for Naval (Shipborne) operations?<br><br>(b) Which is the certifying agency of the helicopter? Is there any limitation to which the aircraft or equipment is certified?<br><br>(c) What are the provisions for certifying Buyer Nominated Equipment and Buyer Furnished Equipment (if any)?<br><br>(d) Please provide **"IN SERVICE"** certificate if the helicopter is in service with any of the maritime forces?<br><br>(e) Please indicate the feasibility & willingness towards integration of Indigenous / locally sourced equipment.<br><br>(f) Are there any restrictions imposed by the government of the country of origin on integration / sharing of ICD of any of Indigenous / locally sourced equipment interfaces<br><br>(g) What would be the approach to certification of integration of Indigenous / locally sourced equipment. |
| 31. | Aircrew | (a) What crew will be required to operate the helicopter (Variant and Role wise)?<br><br>(b) Are there any specific qualifications and type of crew required for the roles envisaged for helicopter? |
| 32. | Ground Crew, Maintainers and Logistics Support | (a) What would be the crew required to maintain and provide logistics support to the helicopter operations and maintenance.<br><br>(b) Is there any requirement of having specific qualifications for maintaining the helicopter? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | Provide details of qualification required for I, O and D level maintenance. |
| **Simulators** | | |
| 33. | 'D' Level Simulators | (a) Does the vendor have a full motion & mission Level 'D' simulator available in India for training of aircrew of the helicopter being offered to be used on pay off basis?<br><br>(b) Would the vendor be in a position to provide 'D' Level Simulators with full motion & mission for helicopter?<br><br>(c) What would be the average operations, availability of image generator, data availability for making simulator and field of view of display system?<br><br>(d) Does the simulator have the ability to generate targets and track them to undertake simulated weapon firing?<br><br>(e) Can the scenarios to involve aerodromes, ships based at sea and landing sequences on multiple types of ships be simulated?<br><br>(f) Can the simulator be integrated with already available other simulators with Roll on/Roll off concept of hosting the cockpit on the platform?<br><br>(g) What training is required for the simulator operators, maintainers and flying instructors?<br><br>(h) What would be the size and infrastructure required for setting up the simulator? |
| 34. | Maintenance Simulator | (a) Does the Vendor have / would the vendor be in a position to provide Maintenance |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | Simulator for the helicopter either at ***IN*** nominated location or at vendor's premises?<br><br>(b) **Core Simulation Capabilities**. Which specific systems of the helicopter are simulated (engines, hydraulics, electrical, avionics, flight controls, rotor system, fuel system, environment control system)? Provide a detailed list.<br><br>(c) How are system failures modeled? Can cascading failures and their effects on interconnected systems be simulated? How many different types of failures can be injected into the simulator? Provide a categorised list (mechanical, electrical, hydraulic and software).<br><br>(d) Which specific maintenance tasks and procedures are supported by the simulator? Please provide a list aligned with the helicopter's maintenance manuals/ philosophy.<br><br>(e) Does the simulator support fault isolation and troubleshooting procedures, guiding the trainee through diagnostic steps?<br><br>(f) **Hardware Requirements**. What are the minimum and recommended hardware specifications for running the simulator (processor, RAM, graphics card, storage)?<br><br>(g) **Instructor Operating Station (IOS)**. What features are available on the IOS for instructors to manage training sessions (scenario creation, failure injection, monitoring trainee actions, performance evaluation, session recording and playback)?<br><br>(h) **Customisation Capabilities**. To what extent can the simulator be customised to |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | reflect specific configurations or modifications of the Navy's helicopters? Can new maintenance procedures or failure modes be added to the simulator in the future?<br><br>(j) What will the various types of consoles, workstations, simulation and reference system that would be available in the Maintenance Simulator?<br><br>(k) What would be the time of operations and requirement of accessories such as UPS for these simulators?<br><br>(l) What would be the size and infrastructure required for setting up the simulator?<br><br>(m) What training is required for the helicopter and simulator maintainers? |
| 35. | AMC | (a) Can the Comprehensive Maintenance Support such as Comprehensive AMC be provided for the Full Mission Simulator and Maintenance Simulator?<br><br>(b) What ToT would be required to ensure prompt and continued support for maintenance of these simulators by Indian entity? |
| **Maintenance and Logistics Support** | | |
| 36. | Maintenance Concepts | (a) What is the existing capability to establish a MRO in the country with ToT? If not existing, please provide the roadmap to setting up of a MRO.<br><br>(b) Is / Can the helicopter provisioned with a HUMS based predictive maintenance system? Please provide the following details:<br><br>(i) Does is have a central data base? |

| Ser | Parameter/ Specification | Queries |
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| | | (ii) Can a Fleet health / trend monitoring facility be provided?<br><br>(iii) Can a Tab based Predictive maintenance capability be provided?<br><br>(iv) Does it undertake continuous recording of Main & Tail Rotors? If not, is this data being recorded in the SSFDR? If not can this be provisioned?<br><br>(c) What would be the (I, O and D level/I, II, III and IV line) maintenance philosophy adopted?<br><br>(d) What will be the philosophy for meeting the requirements of ship based maintenance operations and ease of maintenance?<br><br>(e) Can the GSE provided be standardised, multipurpose, lightweight and easy to handle and of minimal quantum.<br><br>(f) Can the replacements of the role equipment and cockpit instrumentation/ units in front line be easily undertaken?<br><br>(g) What would be the scope, time and manpower required for execution of (I, O and D level/I, II, III and IV line) maintenance?<br><br>(h) What would be the periodicity for scheduled servicing of helicopter and support facilities required? Also provide details of infrastructure to be created by ***IN*** for the same.<br><br>(i) What would be the LRU level defect rectification philosophy? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | (j) Does the helicopter have built-in-test/ performance/ defect monitoring of systems/ equipment?<br><br>(k) Does the helicopter incorporate technologies for both on line and off line modes of defect monitoring system?<br><br>(l) Does the helicopter have the provisions for auto recording of sub optimal equipment performance, intermittent and permanent snags observed in flight by the maintenance software into the mission computer and Flight Data Recorder (FDR) like monitoring of Main Rotor / Tail Rotor Vibrations? Is there an onboard maintenance/ operations monitoring software available? If yes, what are their capabilities?<br><br>(m) Does the helicopter have a compatible compact, portable, rechargeable light weight power pack for daily inspection and startup? Each helicopter is to have an independent aircraft tool box.<br><br>(n) List down periodic maintenance activities involved in the helicopter and its systems along-with downtimes, requirement of test equipment, tools, documentation, spares and specific expertise required to carry out the same.<br><br>(p) Does the helicopter require any additional trolleys/ ladders/ Servicing Platforms of daily / routine servicing?<br><br>(q) Does routine daily servicing (eg After Flight Servicing (AFS) / Before Flight Servicing (BFS) / Turn Around Servicing (TRS)) require any special GSE such as Hydraulic Trolley, Special testers / tools / test benches? Provide time |

| Ser | Parameter/ Specification | Queries |
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| | | required to undertake AFS/ BFS/ TRS in a tabular form.<br><br>(r) Can the technical documentation be provided in IETM form? |
| 37. | Availability, Reliability and Maintainability(R&M) | (a) What would be average helicopter availability, serviceability, utilization rate per month, mission reliability? Related experience / HUMS data be provided separately to support.<br><br>(b) Data available on R&M to be provided. Where data is not available, the plans to obtain the same may be specified.<br><br>(c) Is there R&M program instituted? Maturity levels of all products be suitably commented upon. |
| 38. | Logistics and Product Support | (a) What would be the Logistics and product support philosophy for the helicopters, simulators, out-station detachments and spares management be specified? Provide the infrastructure and facilities required for provisioning of such support?<br><br>(b) For how many years, the product support can be provided? All aspects covered for product support to be listed over full range and depth of spares. |
| 39. | Up-gradation and Obsolescence Management | What is the Terms and Conditions & Plans for future upgrades for improving maintainability, obsolescence mitigation and performance enhancement? |
| **Manufacturing and Deliveries** | | |
| 40. | Manufacturing Capability | (a) Does the company have capabilities and infrastructure to manufacture the Helicopters |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| | | and what are the plans for development of additional infrastructure?<br><br>(b) What would be the production plan and timelines for providing the quantities of Helicopters and the associated equipment?<br><br>(c) What would be the quantities, timelines and breakdown of helicopter proposed to be supplied under the 'Buy' and the 'Make' portions?<br><br>(d) What is the planned roadmap to obtain necessary Government clearances, as applicable? Details and Plans to be provided. Existing and planned MoU with OEMs be also to be indicated and commented upon specifically wrt Range, Depth & Scope of ToT.<br><br>(e) What would be the roadmap for Flight Testing and meeting Certification Requirements for integration of indigenous sensor/ weapon / equipment? What are the facilities existing and planned (location, size and concept be included)?<br><br>(f) What is the roadmap for achieving the 50% indigenous content on the Make Component as mandated for 'Buy & Make (Indian)' at Para 10 of Chapter I of DAP 2020. |
| 41. | Delivery Schedule | What would be the envisaged earliest delivery schedule from the date of conclusion of the contract and supply of subsequent aircraft under the 'Buy' component & 'Make' component for an order of 76 helicopters? Are there any variations or specific delivery pattern that is envisaged? |

| Ser | Parameter/ Specification | Queries |
|---|---|---|
| **Costs** | | |
| 42. | Rough Order of Magnitude Costs (ROM) | What would be the ROM costs for following:-<br><br>(a) 76 Helicopters with separate breakdown for the 'Buy' portion and 'Make' portion.<br><br>(b) MRLS for 05 years for flying @ 500 hrs/aircraft/year (40 hrs/month for 10 months and surge of 50 hrs/month for two months).<br><br>(c) Tools, Testers, GSE/GHE, for undertaking up to 'Intermediate' level servicing by ***IN***, at the requisite scale.<br><br>(d) Weapons and its integration.<br><br>(e) Two Fixed Base Full Motion Cat 'D' Simulator along-with spares for up to 'Intermediate level'.<br><br>(f) One Maintenance Simulator.<br><br>(g) Training, including training on simulators for Aircrew and Maintenance Crew.<br><br>(h) Technical, Training and Operational Documentation.<br><br>(j) Warranty and Comprehensive MC (05 years duration) costs.<br><br>(k) Support Infrastructure. |

43. **Additional Information Sought.**

(a) Ability to provide first two aircraft in a fully instrumented configuration for flight testing.

(b) Any other relevant information on capability of performing the roles, additional roles possible and maintenance philosophy may also be specified. Vendors are to attach detailed technical specifications and literature of the equipment being offered as response to this RFI.

(c) What functionality/capability does your product offer that is not mentioned in the important characteristics and features mentioned herein may also be brought out.

(d) What features or other factors does your product have that in your opinion make it the most competitive may be indicated.

(e) What kind of Governmental and Commercial clearances/licenses will be required both by the vendor and the OEM in case of products including GSE, GHE, testers & tools and its product support be also indicated.

(f) The vendor should specify Critical Technologies required and comment on its ability to absorb the helicopter manufacturing technology at the levels of sub vendor/ supply chain elements in India through ToT from OEM and its partners. The details and guidelines on ToT aspects are as given in Appendix F to Schedule I to Chapter II of DAP 2020, the same may also be commented upon comprehensively in terms their range and depth for the helicopter, simulators, weapons and supporting equipment and products being offered.

(g) What kind of interaction (direct or through helicopter manufacturer), for maintenance and repair is envisaged with vendors/sub vendors/supply chain components post induction of helicopter in order to support the product? Concept envisaged therein, be also described in detail.

(h) The ability to comply with all provisions of DAP 2020 be also specifically commented upon along with reasons in case of infeasibility.

(j) Willingness for Option Clause including the duration for which the Option Clause would be valid also be indicated.

(k) Clearance for integration of indigenous systems on the helicopter through in country certification (with or without OEM Support).

(l) Joint custody of IPR for any system on capability tested and certified on ***IN*** owned helicopters.

(m) Equipment / Assembles which are beyond the IPR of OEM and are under IPR of Tier I, Tier II vendors.

**Appendix 'D'**
(Refers to Para 10 of RFI)

## CRITERIA FOR VENDOR SELECTION/ PRE QUALIFICATION PREQUALIFICATION IN BUY AND MAKE (INDIAN) CASES

1. The guidelines prescribed for short-listing/ pre-qualification of Indian vendors in Buy and Make (Indian) cases are enumerated in the succeeding paragraphs. **Paragraph 2** deals with the parameters that may be considered for short-listing of vendors, whereas **Paragraph 3** amplifies the process for applying selected parameters to the process of Vendor Short listing.

2. **Parameters.**

(a) **General Parameters.**

(i) Applicant Entity should be an Indian Vendor as defined at Paragraph 20 of Chapter I of DAP 2020.

(ii) Business dealing with applicant Entity or any of its allied entities should not have been suspended or banned, by MoD/ SHQ or any Government Department or organization (as defined in Guidelines for Penalties in Business Dealings with Entities issued vide Ministry of Defence, D(Vigilance) MoD ID No 31013/I/2006-D(Vig) Vol II dated 21 Nov 2016). None of the Promoters and Directors of applicant entity should be a wilful defaulter.

(iii) "Entities" will include companies, with whom the Ministry of Defence has entered into, or intends to enter into, or could enter into contracts or agreements.

(iv) "Applicant entity" may be a company, subsidiary, an associate company (as defined in the Companies Act, 2013), a consortium or a Joint Venture (JV).

(b) **Technical Parameters.**

(i) Vendor shall be a manufacturing entity or a system integrator of Defence Equipment and not a trading company, except in cases where the OEM participates only through its authorised Vendors.

(ii) Minimum **two year** experience in **broad areas like manufacturing aviation platforms/ electronics/ explosives etc. as applicable in the instant procurement case.** If not, then cumulative experience of at **least three years in above areas,** resulting in gaining of competence for manufacturing the proposed Equipment.

(iii) Where Equipment involves integration, previous experience **of not less than one year/ one project** in integration of systems/ Equipment shall be required.

(c) **Financial Parameters.**

(i) **Average Annual Turnover**. Minimum average annual turnover for last three financial years, ending 31st March of the previous financial year, should not be less than 30% of estimated cost of the Buy (Indian-IDDM) and Buy (Indian) project should not be less than 30% of estimated cost of the Make portion.

(ii) **Net Worth**. Net worth of entities, ending 31st March of the previous financial year, should not be less than 5% of the estimated cost of the Buy (Indian-IDDM) and Buy (Indian) project should not be less than 5% of estimated cost of the Make portion. Net worth of entities should not be **negative**.

(iii) **Credit Rating (Desirable Financial Parameter)**. Long term credit rating equivalent to CRISIL rating on Corporate Credit Scale as **CCR-BBB or better**, and **SME-04 or better for SMEs** issued by credit rating agencies recognized by SEBI. Credit rating should be as on 31st March of the previous financial year.

(**Note 1**: All the above Financial Parameters, except Paragraph 2(c) (iii) above (Insolvency) will not be applicable for Capital

Acquisition cases where estimated cost is ₹ 150 crores and below. However, Net worth of entities should not be **negative**. For recognized Startups / registered MSMEs, refer Para 5 and 5A of this Annexure.

**Note 2**: The turnover and net worth of the vendor shall be rounded off to the nearest lower ten/ hundred crores so as to keep the estimated cost of procurement confidential).

(d) **Other Parameters**.

(i) **Industrial License (IL)**. Vendors should be either holding a valid defence industrial license or should have applied for the same before responding to RFP. In any case the vendor must confirm holding of IL before commencement of FET. (Items requiring IL will be as per DIPP Press Note 3 of 2014 as amended from time to time).

(ii) **Registration**. Registered for a minimum of two years (one year for SMEs). Minimum number of years not applicable for JVs constituted specifically for a project.

(iii) **Maintenance, Repair & Overhaul**. Vendors should be capable of carrying out comprehensive Maintenance, Repair & Overhaul, calibration and obsolescence management of the equipment / platform / system indigenously, along with associated jigs, fixtures and test setups, during the designed service life of the equipment.

(iv) **Input / Output Protocols**. Vendors should be able to provide indigenously, the Input / Output Protocols of devices / Line Repair Units envisaged to be replaced by indigenous equivalents or interfaced with equipment of own choice.

(v) **Supply of Spares/Logistics Support**. The vendor should commit to supply spares for operational and maintenance requirement for the assigned life of the aircraft. The price charged for such spares will be within reasonable escalation with inflation figure of inputs and labour.

3. **Stipulations for Applying Parameters**.

(a) Areas like manufacturing/ electronics/ explosives etc. referred to at Paragraph 2(b) (ii) should be defined in each case of procurement.

(b) In case the Applicant Entity is unable to meet the Financial Parameters by itself, it may rely on its **Holding Company** (as defined in the Companies Act, 2013 and amendments thereof) ("Companies Act") for fulfilment of the Financial Parameters, in which case reliance must be placed on the Holding Company towards fulfilment of **ALL** the Financial Parameters.

(c) In case the Applicant Entity is unable to meet one or more of the Technical Parameters by itself, it may rely on a Group Company (ies) for fulfilment of the Technical Parameters. A Group Company in relation to the Applicant Entity may be:-

(i) A company of which the Applicant Entity it is an Associate Company. Such company should have ownership, directly or indirectly, of at least **26%** of the voting shares of the Applicant Entity.

(ii) A company which is an Associate Company of the Applicant Entity. The Applicant Entity should have ownership directly or indirectly, of at least **26%** of the voting shares of such Associate Company.

(iii) A Company with whom the Applicant Entity is commonly owned, directly or indirectly, for at least **26%** of the voting shares by another company. For example: An Applicant Company A is an Associate Company of Company B, in which B holds at least 26%. Further, C is also an Associate Company of B, in which B holds at least 26%. In this case the Applicant Company may use the credentials of C as well.

(iv) The Holding Company and Subsidiary Companies (as defined under the Companies Act) of the Applicant Entity.

(d) The Applicant entity may be a single entity or a group of entities (the "Consortium"), coming together to implement the project. In such case:-

(i) The credentials of only those members or their related entities may be counted, who have at least **26%** equity stake in the Consortium.

(ii) Each Consortium should have a designated **Lead Member.**

(iii) For Technical Parameters, **any of the Consortium members or their Group Companies** may meet the criteria.

(iv) For Financial Parameters; the Turnover and Net Worth of the Consortium Member shall be reckoned **proportionate to Consortium Member's equity stake** in the Consortium, and each Consortium member should meet the other criteria pertaining to Insolvency and Credit Rating. In case the Consortium Member relies on its Holding Company for any one of the above-mentioned Financial Parameters, then reliance must be placed on the Holding Company for meeting **all the financial Parameters.**

(e) Vendors should provide all necessary self-authenticated documentation in support of their achievement of criteria. Such documentation should inter-alia include:-

(i) Details of projects/ supply orders successfully executed in the last two years.

(ii) Annual reports for three years of applicant entity, parent and associate companies, consortium and JV partners.

(iii) Details of shareholders, promoters, associated, allied and JV companies.

(iv) Details of vigilance action, viz. ongoing investigation and suspension/ debarment/ blacklisting actions against the applicant entity or any of its allied entities, parent company or consortium and JV partners, if any by any Department/agency of Central Government.

(v) A certificate from CA/CS indicating the financial parameters for the last three years as per Paragraph 2(c).

(**Note**: If a vendor is already a supplier to MoD and/ or has already provided the above documents in such cases, it should be necessary for the vendor to resubmit only such documentations as is necessary to update the above).

(f) Any vendor furnishing false information will be liable for action as per existing guidelines.

(g) Based on these generic parameters, more specific criteria should be evolved by the SHQ with regard to Technical and Financial parameters {Paras 2(b) and 2(c) above} in each procurement case depending upon requirements peculiar to each case keeping in view the overall need to ensure wider vendor participation. The specific criteria evolved by the SHQ for each case, as per these guidelines, may be got approved by the competent authority before including the same in the RFPs.

4. The criteria for vendor selection shall be clearly stipulated in RFPs so as to maintain transparency.