SP/10200/NGFIC/RFI/MoM 13 Feb 23

MINUTES OF MEETING – COLLEGIATE MEETING ON RFI QUERIES OF NGFIC HELD ON 07 FEB 23, NHQ CONFERENCE HALL AT 1500H

1. Collegiate Meeting on RFI queries of Next Generation Fast Interceptor Crafts was held at 1500h, NHQ Conference Hall on 07 Feb 23 chaired by Cmde (SP)-II. The following reps from ***IN*** and Shipyards attended the meeting:-

Ser	Name	Organisation
	NHQ Reps	
(a)	Cmde Lavneesh Dhawan, Cmde (SP)-II	IHQ MoD(N)/ DSP
(b)	Capt Pradeep Kumar, Capt (NP)	IHQ MoD(N)/ DNP
(c)	Cdr AS Negi, Cdr (NBCD)	IHQ MoD(N)/ DNBCD
(d)	Cdr Ranjit Singh, Cdr (SR)	IHQ MoD(N)/ DSR
(e)	Cdr AM Jaffar Sirajuddin, Cdr (Marine Engg)	IHQ MoD(N)/ DME
(f)	Cdr Atish Kumar, Cdr (EE)	IHQ MoD(N)/ DEE
(g)	Lt Cdr Manish Verma, Lt Cdr (NA)	IHQ MoD(N)/ DNA
(h)	Lt Cdr SVS Abhishek, Lt Cdr (SP)	IHQ MoD(N)/ DSP
	Shipyard Reps	
(j)	Shri Ram Chandar Jha	M/s SPL
(k)	Shri Arun Sornapudi,SM(GES)	M/s GSL
(l)	Shri Mahesh J Kawade,(Chief Manager)	M/s MDL
(m)	Smt. Shruti Jayadas,(Manager)	
(n)	Shri Sibi George,(Deputy Manager)	M/s CSL
(p)	Shri Kajal Roy	M/s Solas Marine
(q)	Cdr SK Sharma,(Retd)	M/s L&T
(r)	Cdr BS Raghavan,(Retd)	
(s)	Shri Aliasgar Hajee,(Director)	M/s SHM Shipcare
(t)	Shri Sandeep Madiwalker,(Senior Executive)	M/s Chowgule
(u)	Shri Vineet Shrivastava, (General Manager)	M/s TWL
(v)	Cdr Harish Kumar,(Retd)	M/s GRSE
(w)	Shri Nishant Dwivedi, Manager	M/s HSL

2. Cmde (SP)-II welcomed the representatives of ***IN*** and Shipyards for Collegiate meeting on RFI queries for Next Generation Fast Interceptor Crafts.

3. The Shipyards were intimated upfront that the RFI has been hosted for seeking industry/ Shipyards inputs wrt to Staff Requirements formulated by ***IN***. The Staff Requirements (SRs) may be amended, if required, based on Shipyards response. The agenda points projected by the Shipyards were deliberated thereafter.

4. ***IN*** comments on the Agenda points are placed at Enclosure.

(SVS Abhishek)
Lt Commander
Lt Cdr (SP)

Enclosure to SP/10200/NGFIC/ RFI/MoM dated 13 Feb 23

NGFICs RFI COMMON QUERIES

Ser No	RFI Reference	Requirements	Comments by Shipyards	IHQ Comments
(a)	Appendix A, Ser 3, Section- A General	Displacement - 17 Tons +/- 10%	The length of the vessel and increase in upper limit may be considered in view of selection of propulsion and engine sizing	Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** (Aluminium/ GRP/Carbon fiber) based on **RFI uploaded** on 21 Dec 22
(b)	Appendix A, Ser 4, Section-A General	The FIC-I should have :- (a) Maximum speed of not less than 45 kn at environmental conditions mentioned at Para 7. (b) Sustained Speed to be more than 45 kn. (c) Economical Speed to be more than 15 kn. Para 7: Equipment and machinery fitted on the FIC-I should be marinised and capable of satisfactory operation, under the following environmental conditions:-	Request indicate operating profile of the vessel	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.

Ser No	RFI Reference	Requirements	Comments by Shipyards	IHQ Comments
		(a) Ambient air temperature from Zero to +45° C. (b) Water temperature from 01 to +40° C. (c) Max relative humidity of 90% at +32° C. (d) Salinity of water up to 36000 ppm. (e) Water density from 1010 to 1025 Kg/m3. (f) Harbour waters which have incidence of water hyacinth, contaminants like polythene bags of varying size and mud sediments.		
(c)	Appendix – A,Ser 5, Section-A General	Not less than 200 nm at speed of 15 kn with 25% fuel remaining onboard as reserve.	Request indicate operating profile of the vessel	Maximum Range promulgated is to be achieved with 25% reserve fuel, to cater for operational exigencies. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.

SHIPYARD QUERIES

Sl. No	RFI Page/ Para/Clause	RFI Stipulation	Query	IHQ Comments
M/s GRSE				
1	Page 4,Part-1, Para 7.(f)(i)	Pre Contract Integrity Pact(PCIP). All Shipyards will be required to submit a PCIP for all procurement schemes above Rs 20 cores along with their technical and commercial offers. Earnest Money Deposit (EMD) will act as security for PCIP till signing of contract. Format of EMD is given at Annexure I to Appendix O of schedule I to Chapter-II of DAP-20. Post signing of contract, PCIP will be covered by PWBG till completion of contract.	It is therefore proposed that Indemnity Bond may be accepted in lieu of EMD.	DPSUs/OFB will submit BGs, as applicable, while participating in multi-vendor cases with private vendors iaw Para 119 of Ch-II of DAP-20.
3	Page 16,Appendix A, Para 30 **NBCD**	NBCD Allowance List is to be as per IHQ MOD (N) / NBCD letter	A copy of IHQ MOD (N) /NBCD letter may be shared.	Following amendment are to be incorporated at Encl 1 and Encl 2 of letter quoted ibid:-

		NB/0695/CNAL/FIC dated 22 Mar 17.		(a) **Encl 1 (Fire Fighting System)** **FOR** / **READ** **Equipment Description** / **Qty (Nos)** / **Description** / **Qty (Nos)** 10 kg DCP extinguisher (ABC type) / 01 / 2 kg DCP extinguisher stored pressure type (Composite Material) / 01 9 Litre AFFF extinguisher / 02 / 2 Litre AFFF extinguisher stored pressure type (composite material) / 02 Nozzle Jet/ Spray / 01 / Variable Delivery Nozzle / 02 Nozzle Spray/Jet / 01 (b) **Encl 2 (Spares for CNAL)**. Following spares for below mentioned equipment are to be deleted:- (i) 09 Ltr AFFF extinguisher. (ii) Emergency Life Support Apparatus (ELSA). (iii) Motorola set GP 338.

M/s L&T			
Ser	**Ref Section &Item**	**Comments/Queries/Clarifications required**	**IHQ Comments**
4	Section A General Para 4 & 7 Max Speed as per environmental conditions to be 45 knots.	The environmental conditions provide a range for operating machinery. The conditions mentioned for ambient temperature is 0 – 40 degrees and this will have an effect on powering of the boats. Hence it is recommended to keep trial conditions in calm Sea States with ambient temperatures between 20-30 C degrees.	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.
5	Section-B, Para 12 Weapons and Sensors	12.7 mm gun SRCG, has stringent requirements for structural stiffening. Therefore, request to provide complete requirements for structural integration in the RFP. **IHQ Comments**: The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, IN may carry out changes to Staff Requirements (SRs) and seek fresh inputs if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.	
6	Section F Engg Para 29(I) GRP specific DC Items	Request to elaborate GRP Specific DC items in the RFP	Details of GRP DC Items:

			Water activated Foam -04/ FIC Water Stopper plate – 03/ FIC Emergency Plug -05/ FIC However, details will be elaborated in RFP
7	Section F Engg Para 29 (m)Rubber dirties to be replaced….due to failure of dirties	Request to elaborate on Rubber Dirties in the RFP	For : Rubber Dirties Read: Rubber Durites The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.
M/s Goa Shipyard Limited			
Ser	**Ref Sec**	**Query**	**IHQ Comments**
8.	SI. No 29 to Appendix A	Fire Fighting Will the Navy consider alternatives to the NOVEC – 1230 FF system? Other options such as the FM200 are significantly lighter to install and service, thus providing a better solution for high speed vessels.	No Change in NOVEC-1230 FF System. However, the issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.

M/s Cochin Shipyard Limited			
Sl. No.	**Ref sec, Page, Description**	**Suggestion/Comments**	**IHQ Comments**
9	Page 1 The FIC-I would be constructed in a phased manner over a period of 04 years (2026-2030)	Another place in RFI it is mentioned as "The anticipated delivery timelines for the NGFICs is proposed between 2026 to 2030 in lots of 30 ship per year". Request to Clarify whether this means within a span of 5 Calendar years (that is 2026, 2027, 2028, 2029 & 2030) shipyard has to make 4 deliveries of 30 boats each?	Refer to Ser (a) Comments of NGFICs RFI Common Queries. The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.
10	Para 3, Page 9 Length Overall : Between 13 to 17 m Draught : not exceeding 1m Displacement : 17 tons ±10%	Draught: 1.3 m approx. Displacement : 25 tons ± 10% Considering the endurance and deadweight of the boat, vessel draught will be near to 1.3 m and which leads to increase in displacement more than 25 tons.	

11	Para 5, Page 10 Not less than 200 nm at speed 15 Kn with 25% fuel remaining on boards as reserve	As per preliminary displacement calculation, the displacement is working out to about 25 T. Hence, suggest to decrease the endurance to 150nm to meet the displacement and speed limit. RFI Section' speed', Para 4, page No 10 serial (c) says "Economical Speed to be more than 15 kn". Since economical speed is kept open for ship designer to select, request to keep the endurance calculation also to be open instead of specifying 15 kn speed.	
12	Para 7, Page 10 Water temperature from 01 to +40° C	Generally, the Indian Navy RFP specifies "All machinery are to be designed to perform at rated conditions at Ambient Sea Water Temperature Max 35° C". Here in this RFI, Sea water Temperature 40° C being mentioned. Which would lead to derating of engines and DGs. So, the sizing would be further increased to nullify the derating. Which in turn increase the fuel requirement and cascading effects would be there. Request to relook into this and amend to 35° C.	

M/s Titagarh Wagons Limited			
Ser	**Reference(RFI)**	**Query**	**IHQ Comments**
13	Serial(h) Para 1/Primary Roles Section A- General Appendix A	(a) We understand the vessel will be outfitted/ facilitated for limited ambulance role – not as professional as ambulance vessels (b) Request to intimate the specific requirements, if any.	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.
14	Serial (f) Para 2/ Essential Features Section A – General/ Appendix A	(a) 3000h/year seems very high. Please review. (b) Otherwise, the requirement drastically increases engine block => speed +> cost (purchase as well as maintenance). (c) A typical daily % of usage information will be appreciated (d) (XX% loiter speed, XX% slow patrol, XX% fast patrol (eco speed), XX% interception)	
15	Serial (k) Para 2/ Essential Features Section A – General/ Appendix A	Arrangement to prevent towing rope from getting entangled in water jet is not applicable in case and if Articulated Stern Drive is provided	
16	Para 5/ Endurance Section A-General/ Appendix A	25% fuel reserve is a lot Please review to lower reserve to 10% -15%	Refer to Ser (c) comments on NFICS RFI Common queries.
17	Para 10/ Ergonomics Section A-General Appendix A	(a) Can we know client specific needs and requirements on automation, functional aspects and crew comfort?	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and

		(b) Plz confirm if there is any requirement of any sleeping berth (crew accommodation) and Galley.	seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.
18	Para 12/ Weapons & Sensors Section B- Armament Appendix A	Make and Models of Weapons and Sensors (Shortlisted/ Selected by Indian Navy), may be intimated to approach OEMs for firm proposals and subsequent study for design integration.	Details will be deliberated during RFP
19	Serial (a),(l) Para 34 / Equipment/ Lighting Section G – Electrical Appendix A	Electrical equipment, cables and fittings, machinery and associated systems will be certified by Class as per the CLASS scope and QAP. Generally engulfing all items under CLASS scope cannot be practical. Many items will be based under Yard QA or OEM certified or self- certified To our understanding, CLASS rules are not applicable for all lighting and associated items We shall follow scope matrix of equipment by CLASS applicable for this type of vessel and QAP	• As vessels are to be built to class specifications no ***IN*** specs/ standards or vendor list has been specified for the project, iro Electrical equipment pertaining to the Directorate. *This has been under the assumption that Class society would be providing necessary QA cover and would stand guarantee for all aspects including design, safety and performance aspects onboard the vessel.* • Most of the vendors onboard the platform are not nominated by the ***IN*** and thus the shipyards proposal of accepting items on self-certification basis is likely to add considerable subjectivity to the design and construction of the platforms and may impinge on its performance in the long run and is thus not concurred. • **Proposed Way Ahead**. The following way ahead is recommended for the issue:- • All items under the Class scope is to be certified by Class as per the Class QAP. • For items not governed by class specifications, a list be drawn by the shipyards in consultation with respective OEMs, bringing out the relevant specifications/ standards to which those

			are designed/ manufactured (eg. ISO, commercial, marine standards etc.). • For such items while internal QA may be undertaken by Shipyard/ OEM, Class be entrusted to draw a QAP and ascertain compliance to the relevant specs/ standards to which the equipment/ items has been designed and manufactured, as also the operational/ functional parameters. • Since no ***IN*** specifications are being mandated for the vessel, sub delegating the QA/ testing/ certification to OEM level (through self-certification) is not recommended as it may impinge on the platforms build quality and may lead to subjectivity in the QA process during the shipbuilding. • While the issue has been highlighted iro Electrical equipment, but it is envisaged that the aspects would be valid for various other equipment fit onboard the vessel. *It is recommended that for all equipment fit and the overall accountability for all QA/ design and performance aspects of the vessels should remain with Class authority.* However, elaborated details will be indicated in RFP. The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22

20	Serial (b)/ Power Generation Para 34/ Equipment Section G- Electrical Appendix A	Can we avoid generators by replacing with batteries loaded by specific alternators on PTO? Electric consumption can be managed by IPMS (Integrated Program Management System)	Para 34 Ser (b) of OSRs in RFI Stipulates the following:- *The craft is to be provided with suitable number of generators of reputed make and of adequate capacity with 100% reserve power and redundancy conforming to Classification Specification regulations.* Suitable generators to be provided as per the above.
21	Serial (j)/ Electric Cables Para 34/ Equipment Section G- Electrical Appendix A	Cables shall be conforming to Class requirements as per CLASS scope and QAP. Moreover, in case of equipment, it may be noted that OEMs enter separate agreements with CLASS for Type approval/ certification/ appraisal of their products. Yards do not have much control in this regard. We can ask but not sure if the OEMs would follow the requirement of CLASS compliant cables for all equipment. Generally it will be governed by Equipment design and equipment QAP.	It is well appreciated that Specs/ standards of the cabling internal to the equipment is based on the OEM design and manufacturing procedures. However, since no ***IN*** specs/ standards are being mandated, Class is required to undertake the QA and acceptance of the equipment as per extant standards, in consultation with respective OEMs.
General remarks: Vessel will be designed and constructed to the requirements of CLASS with applicable regulations and certifications. Hence, item wise mentioning class requirement is not required as it is likely to create discrepancy/ confusion as there are a no. of components/ items/ attributes where CLASS do not play any specific role. For example, class do not have any major say to seating of the motors, in general.Ship design and construction will be governed by the CLASS rules and regulations, scope matrix for equipment & material certification and QAP			

M/s HSL			
S.No	**RFI Page No,Reference**	**HSL Query/Remarks**	**IHQ Comments**
22	Page 2, Important Parameters Part –I Para 6b	RFI stipulates for submission of concept design for upcoming indigenous technologies if any, Request elaborate the same.	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.
23	Page9, Essential feature ,Appendix A Para 2(e)	Understand IMO code for structural fire protection for high speed crafts is only applicable for steel builds. Requirement may please be reconsidered for GRP/ Al hulls.	Structural Fire Protection requirements, given in HSC code, provide standards to be achieved and Chapter 7, Para 7.4.1.1 of the Code states, "The requirements below apply to all craft irrespective of construction material." Where material of construction is of consideration, the code specifies the same.
24	Page 10, Design & Construction Appendix A Para 9	Hull material (Aluminum/ GRP/Carbon fiber) may be clearly explicated in the RFP/ tendering stage as the cost factor and the capability factors for each are different. Further, Advanced composite/ carbon fiber hulls if considered may be specified as they have huge cost implications wrt normal GRP/Al hull.	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** (Aluminium/ GRP/Carbon fiber) based on **RFI uploaded** on 21 Dec 22.
25	Page 13, Steering System, Appendix A Para 18	RFI stipulate that Provision for Steering the vessel in case of failure of one propulsion is to be provided. **Comments**: Generally post failure of one propulsion, only survivability & return capability to	It is highlighted that if Port side fails the Stbd side propulsion should act as redundancy.

		base with restricted steering can be easily provided. Requires further Amplification of Steering provided post failure of one propulsion may be clarified.	
26	Page 7 & 25, Financial Parameters Part III and Appendix E	Part –III of RFI states that guidelines for short-listing Indian Shipyards governs as per Chapter XII of DAP 20 and it is mentioned in RFI that the relevant details are placed at Appendix E. **Comments**: It is observed that the guidelines indicated in Appendix E of RFI refers to Annexure IV to Appendix A to Chapter II of DAP 20. Therefore the guidelines for shot-listing the Shipyards may be reconciled iaw Chapter XII of DAP20.	Vendor Selection Criteria. Guidelines for framing criteria for Shipbuilding cases may be considered for seeking response iaw App C to Ch XII- DAP-20
28	Page 16, Fire Pumps, Appendix A Para 29 (f)	Request clarify can one of the two fire pumps defined in this para be used for the pump indicated in Para 29(K). Can the other be a manual/ hand pump?	Two fire pumps indicated at Para 29 (f) are to be fixed, motor driven pumps. Pump indicated at Para 29(k) is a diesel driven pump. Both requirements are different. Hand pumps not be used for the same.
29	Page 16, Fixed Dewatering Pump, Appendix Para 29 (j)	Request clarify can dewatering pumps be engine driven clutch pumps fitted to both engines and connected to the dewatering system through a valve chest? These can then be operated by either main engine.	No. The dewatering pump is to be motor driven & stand alone.

30	General	Request clarify the modalities of warranty service that is expected to be undertaken	Warranty clause would be indicated in detail during issuance of RFP. The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22.
31	General	Request clarify if AMC will be part of the main contract or would it be a separate tender	AMC will be separate tender by Headquarters
32	General	Delivery location of boats may be clarified:	Firm locations and quantity of NGFICs required would be promulgated at RFP stage. However, likely locations are Kolkata, Vizag, Karwar, Mumbai and Porbandar.
33	General	Request clarify the Product support envisage for FICs and where spares are to be positioned.	Warranty clause would be indicated in detail during issuance of RFP. Further, the issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22
34	General	Training needs if any may be specified.	Training needs would be indicated in detail during issuance of RFP. Further, the issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22

Queries of Shipyards

Ser	RFI reference	Comment	IHQ Comments
35	Ser 26, Para (b), Section-F Engineering (OSRS of NGFIC) **(M/s L&T)**	The engine (s) should be able to carry out sustained operations for about 10-12 hrs per day, with an annual exploitation of about 3000 hrs. **Comments**. Yearly exploitation of 3000 hrs would mean that on an average the crafts will be exploited for 10 hrs every day for 300 days a year. This appears to be quite high. Recommend this may be reviewed.	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22
36	Ser 12, Para (b), Section-B Armament (OSRS of NGFIC) **(M/s L&T)**	01 x 12.7 mm SRCG with EOFCS mounted on coxswain post with day and night capability. Armour plating is to be designed, without limiting Coxswain's field of view **Comments**. For 12.7mm gun SRCG, the design criteria requires quite stringent dynamic loading requirements of fire shock response and structural amplification, necessitating heavy structural strengthening below the gun. This would result in substantial increase in weight. Further, SRCG has a Power Supply Unit (PSU), System Control Panel (SCP) and Multi- Function Display Unit (MFDU) which are to be installed inside the Bridge. Therefore, the size of the Bridge required will be quite large, and may result in increased overall space requirements. Recommend fitment of SRCG may be reviewed.	
37	Ser 14, Section-C Navigation (OSRS of NGFIC)	Coxswain Post **Comments**. It is considered that having a separate cabin as Coxswain post in a small craft like FIC is quite challenging. Hence, it is recommended that	

		requirement of Coxswain Post may be reviewed/ dispensed with.	
38	Ser 21, Para b,Section-E Seamanship and Hull (OSRS of NGFIC) **(M/s L&T)**	**Towing Arrangement**. Suitable towing arrangement, to tow a craft of equal size should be provided **Comments**. Suitable arrangement for being towed will be provided. Strong points/ bollards can be provided on the craft for tow of other crafts of same size. It is considered that provision of Towing winch be dispensed with, as it would add significant additional weight.	
39	Ser 26, Section-F Engineering (OSRS of NGFIC) **(M/s MDL)**	The FIC-I shall be fitted with two suitably rated inboard Diesel Engines (one per shaft) coupled to reversible gearboxes driving Articulated Surface Drive or Waterjets, meeting the speed requirement at Para 4 above. Diesel Engines are to be matched at 85% MCR for the full speed requirement **Comments**. Since the vessel is a planing vessel, it is highly weight sensitive. Diesel engines achieving 45 knots at 85 % MCR might result in increase in weight and higher power requirements. Request consider the following: "Main Engines to be matched at 92 % MCR for full speed requirement."	
40	Ser 14, Section-C Navigation (OSRS of NGFIC) **(M/s L&T)**	Coxswain Post **Comments**. It is considered that having a separate cabin as Coxswain post in a small craft like FIC is quite challenging. Hence, it is recommended that requirement of Coxswain Post may be reviewed/ dispensed with.	

41	General **(M/s HSL)**	Option of having electric boats with electric propulsion may be explored as they are Zero Emission and energy sufficient. The following alternatives wrt propulsion and energy storage system for the craft may be noted: Electric Propulsion System Hardware consisting of eDrive Inboard Engine (approx. 375 KW*2) complete with inboard motor bed Mountings and Flange Coupling on Output Shaft. CPDU-HV Controller, OBC 3Phase 22KW/ Single Phase 7KW. Liquid Cooling System, x24 KW DCDC Converter (8KW Total) X 2 Helm Station Rigging (Throttle Start/ Stop Controls & 7" Colour TS Display) Energy Storage System Battery Pack (980kWh Capacity/ 665 DC) consisting of: X10 98KwH 9AKM 150 CYC Modules, BMS Controller & Interconnection cabling & Junction Box.	
42	Ser 2 of Appx B, Questionnaire as part of RFI response What are the comments on proposed Delivery Schedule of the Vessel? **(M/s GSL)**	Considering the criticalities involved in planing crafts, IN should provide minimum 18 months for first vessel and thereafter Yards can deliver boats as per IN requirement.	

43	Section A General **(M/s L&T)**	Request to specify requirements for accommodation, bathrooms, geysers for hot water etc.in the RFP as the dimensions/displacement of the boat would need to cater for these if required Request to indicate, if any requirements for fitting of HMG/MMG in the RFP	
44	Section A General Para 9 **(M/s L&T)**	Request elaborate requirements of bullet proofing of upper deck canopy in the RFP – Is armor plating required or bullet proofing fiber material to be used	
45	Section-C, Para 17(f) **(M/s L&T)**	Request to provide specifications of the surveillance systems camera in the RFP. Request to indicate requirements of night vision device/IR cameras, if any, in the RFP.	
46	Para 5, Page 10 **(M/s CSL)**	Endurance of 200 NM at 15 knots: A high speed vessel with maximum speed of 45 knots shall have most economic fuel consumption in the range 20-30 knots. In view of this cruising/economic speed for endurance be once again checked.	
47	Sl. 2 to Appendix A – Essential Features – (f),(g) **(M/s GSL)**	Can Navy supply a detailed daily operating profile which will better enable main equipment selection. It is unclear what the intent of the requirement is? For the vessel configuration and required rated speed, the engine hp is high – therefore at 33% MCR, the vessel speed exceeds 8 knots. A lower MCR is needed to meet this criteria.	

48	Sl.7 to Appendix A-Operating Conditions **(M/s GSL)**	We assume the max speed is in harbour conditions (Sea state 0-1). Please confirm.	
49	Sl. 12 to Appendix A – Weapons **(M/s GSL)**	Will Navy supply the stated armaments? If so, please provide the weight, drawings. Dimensions and specifications of stated equipment.	
50	Appendix A Para 11 **(M/s HSL, M/s SHM)**	RFI states that FIC-I should be capable of being manned by crew of four personnel and have a lifesaving capacity of 14 personnel. **Comments**: 4 in no crew and Life Saving Personnel Capacity of 10 is easily feasible to accommodate in indicated Parameters limitations. Please clarify 14 in no Life Saving Capacity is Upper Limit or Lower Limit. It is recommended to indicate 14 Capacity as upper limit and 10 Capacity as lower limit.	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22
51	Appendix A Para 12(a), (c), **(M/s HSL)**	The weight and the basic dimension of SRCG may be shared for the structural & Stability calculations. Basic specifications of Acoustic Warning device (AWD) may be provided.	
52	Appendix A Para 13 (a), 17(d) **(M/s HSL)**	The space dimension and weight of Magazines expected to accommodate the Magazine Locker for 12.7 SRCG may be specified for the structural & stability calculations. Request clarify Laser Range finder to be fixed or Portable type?	

53	General **(M/s HSL)**	Request indicate/ clarify list of Buyer Furnished Equipment if any	Will be indicated in RFP
54	General **(M/s HSL)**	Option of having electric boats with electric propulsion may be explored as they are Zero Emission and energy sufficient. The following alternatives wrt propulsion and energy storage system for the craft may be noted: Electric Propulsion System Hardware consisting of eDrive Inboard Engine (approx. 375 KW*2) complete with inboard motor bed Mountings and Flange Coupling on Output Shaft. CPDU-HV Controller, OBC 3Phase 22KW/ Single Phase 7KW. Liquid Cooling System, x24 KW DCDC Converter (8KW Total) X 2 Helm Station Rigging (Throttle Start/ Stop Controls & 7" Colour TS Display) Energy Storage System Battery Pack (980kWh Capacity/ 665 DC) consisting of: X10 98KwH 9AKM 150 CYC Modules, BMS Controller & Interconnection cabling & Junction Box.	The issue highlighted will be deliberated based on RFI responses from all Shipyards. Specific comments on Staff Requirements may be indicated by the Shipyard as part of their response to RFI. Based on the inputs from industry, ***IN*** may carry out changes to Staff Requirements (SRs) and seek fresh inputs, if required. Shipyards are also to forward the **Budgetary Quotation** based on **RFI uploaded** on 21 Dec 22
55	Ser 6, Section- A General (OSRs of NGFIC)	**Propulsion**. Two suitably rated inboard Diesel Engines coupled to reversible gearboxes driving Articulated Surface Drive or Waterjets, meeting the speed requirement specified above should be installed. Comments: Equipment like Main Engines/ Waterjets, navigation equipment, controls shall have to be imported and the cost of these items could be less than 200 Cr.	**GoI Import Ban on Weapons/ Platforms**. In light of the recent PMO directives and amendments to DAP-20 accorded approval by DAC [02/ 22] held on 22 Mar 22 following is in vogue:- 'In- principle call by all stakeholder for Nil imports of Defence Equipment'. However, if capability for the same does not exist presently, the SoC for alternate product development/ procurement will be processed for approval. Further, in cases development/ production is not feasible, a categorical exception will have to be obtained from DAC. Any import of defence

	(M/s HSL)	However as per DPIIT order No. P-45021/2/2017-PP (BE-II) dated 04 Jun 20 and dated 16 Sep 20, DPSU's have prerequisite ToT take exemption/ approvals for GTE for items/ services value < 200 Cr. The same is applicable only to DPSUs. Also obtaining GTE exemption for all the equipment's will take considerable time for DPSU's when compared to the private shipyards who need not take this exemption. This will have impact on the delivery timelines of the project. Therefore, we recommend that, in order to have a level playing field amongst participants of the project and to encourage Make in India drive of GoI , it is proposed that Indian Navy may take GTE exeption from DPIIT for the imported equipment where value of equipment is less than Rs 200 Cr and incorporate in the RFP.	equipment, irrespective of the value, will require the explicit approval of DAC'. Accordingly, based on the inputs of professional Dtes at IHQ MoD (N), BNE items which need to be imported by Shipyard, would be specifically indicated in Soc. Thereafter, iaw the instant provisions of DAP-20 explicit approval of DAC would be sought for these imported items, while processing the SoC for accord of AoN.